

# APHASLAM

Industrial Electrical Equipment Specialists

*Product Catalogue*

**01 453 2522**

**sales@aphaslam.ie**

**www.aphaslam.ie**

## Distributor for these major brands

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**Weidmüller**   
*The Interface Partner*

**MERSEN**

**WISKA** ®

 **Cembre**  
MAKING THE RIGHT CONNECTIONS

**SCHRACK**  
**TECHNIK**

**BACO**  
CONTROLS

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**CSJ**  
SEALING SYSTEMS

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**FLEXICON**  
FLEXIBLE CONDUIT SOLUTIONS

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**CANALPLAST**®

**LUTEC**  
CONNECTED BY LIGHTING

 **Technor**®  
A company of MARECHAL ELECTRIC GROUP

 **Marlanvil**

 **MULTI-BOX**  
THE BOX COMPANY

 **PRYSMIAN**  
CABLES & SYSTEMS

**PROVERTHA**®  
CONNECTORS, CABLES & SOLUTIONS

**BARRIER**  
LED LIGHTING

**rayTEC**®

 **plastim**®

 **ANAMET EUROPE**

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**Thank You** for taking the time to look through our **2017 catalogue**. As you will see we have a wide range of reliable electrical components for Industrial, Commercial and the Hazardous Industry Sectors.

We have recently added **Raytec** and **Technor**, suppliers of LED lighting and other EX solutions, to our range of quality brands such as **Weidmüller**, a world-leading electronic manufacturer, as well as **WISKA**, **Mersen**, **Cembre** and **Schrack**.

But that's just part of our story.

From our in-house **Workshop**, we manufacture earth bars, combination units, junction boxes and much more. Our Team also creates bespoke solutions tailored to your exact specifications, as well as prototypes.

With **AllCables** we have also expanded our service as a bespoke cable manufacturer, so we are now able to supply a full range of cable assemblies, from simple patch leads to comprehensive fibre-optic solutions.

Whether you are a current customer – or a business that has not considered **AP Haslam** recently – why not give us a call on **01453 2522** and see how we can help you and your clients.

**Keith Haslam**

*Director*

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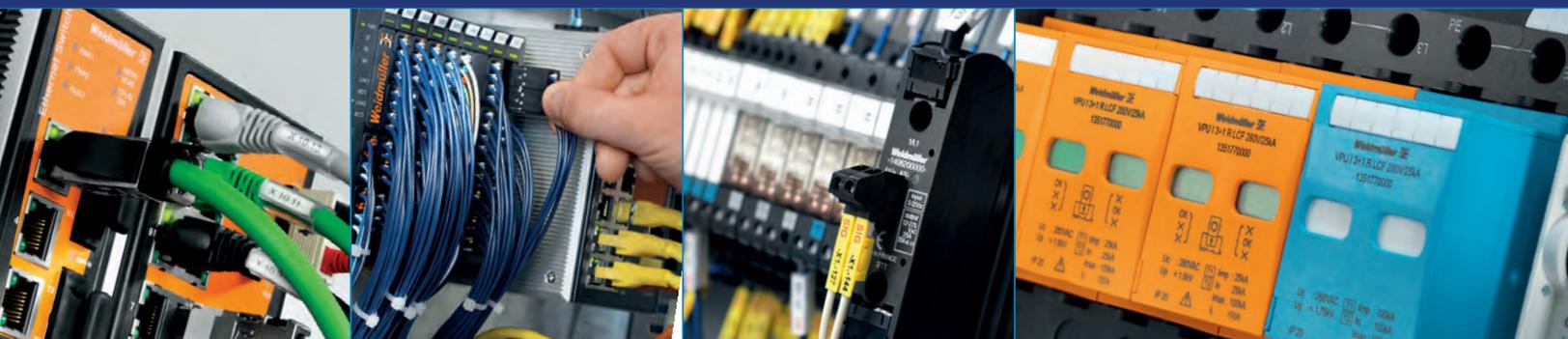
**APPROVED  
DISTRIBUTOR**

## Global standards in electrical connection

As the leading manufacturer of components for electrical connection technology, the Weidmüller range sets Global standards for local markets.

Available from AP Haslam

- ▲ Terminal Blocks
- ▲ PCB connectors
- ▲ Relay Sockets
- ▲ Power Supply
- ▲ I / O Components
- ▲ Industrial Ethernet



# APHASLAM

Industrial Electrical Equipment Specialists

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**Weidmüller**   
The Interface Partner

'W' Series Terminals & Accessories for TS35 Rail Mounting



WDU 1.5/2.5sq Terminals and Accessories

Type	Part No.	Description	Pack
WDU 2.5N*	1023700000	1.5sq, 18A Terminal Beige	100
WDU 2.5N*	1023780000	1.5sq, 18A Terminal Blue	100
TW	0191860000	Partition Beige	20

\* N = enclosed type terminals

WDU 2.5sq – WDU 10sq Terminals and Accessories (Beige)

Type	Part No.	Description	Pack
WDU 2.5	1020000000	2.5sq, 26A Terminal	100
WDU 4	1020100000	4sq, 35A Terminal	100
WDU 6	1020200000	6sq, 46A Terminal	50
WDU 10	1020300000	10sq, 63A Terminal	50
WAP	1050000000	End Section	50
WAP	1050100000	Partition	50

WDU 2.5sq – WDU 10sq Terminals and Accessories (Blue)

Type	Part No.	Description	Pack
WDU 2.5	1020080000	2.5sq, 26A Terminal	100
WDU 4	1020180000	4sq, 35A Terminal	100
WDU 6	1020280000	6sq, 46A Terminal	50
WDU 10	1020380000	10sq, 63A Terminal	50
WAP	1050080000	End Section Blue	50
WAP	1050180000	Partition Blue	20



WDU 16sq Terminals and Accessories

Type	Part No.	Description	Pack
WDU 16N*	1036100000	16sq 82A Terminal Beige	50
WDU 16N*	1036180000	16sq 82A Terminal Blue	50
WDU16	1020400000	16sq, 85A Terminal Beige	50
WDU 16	1020480000	16sq, 85A Terminal Blue	50
WAP	1050100000	End Section Beige	50
WAP	1050180000	End Section Blue	20

\* N = enclosed type low profile terminals

WDU 35sq Terminals and Accessories

Type	Part No.	Description	Pack
WDU 35 N*	1040400000	35sq, 150A Terminal Beige	20
WDU 35 N*	1040480000	35sq, 150A Terminal Blue	20
WDU 35	1020500000	35sq, 138A Terminal Beige	25
WDU 35	1020580000	35sq, 138A Terminal Blue	25
WAP	1050100000	End Section Beige	50
WAP	1050180000	End Section Blue	20

\* N = enclosed type low profile terminals

WDU 50sq Terminals and Accessories

Type	Part No.	Description	Pack
WDU 50 N*	1820840000	50sq, 150A Terminal Beige	20
WDU 50 N*	1820850000	50sq, 150A Terminal Blue	20

\* N = enclosed type terminals



WDU 70sq Terminals and Accessories

Type	Part No.	Description	Pack
WDU 70N*	9512190000	Terminal Beige	10
WDU 70N*	9512420000	Terminal Blue	10

\* N = enclosed type terminals



Double Deck Terminals

Type	Part No.	Description	Pack
WDK 2.5	1021500000	2.5sq, 24A Terminal	100
WDK 2.5	1022300000	2.5sq, 24A Terminal Commoned	100
WAP	1059100000	End Section for WDK 2.5	50
WDK 4	1041900000	4sq, 32A Terminal	100
WDK 4N Blue	1041980000	4sq, 32A Terminal	100
WAP	1084000000	End Section for WDK 4	20
WAP	1084080000	End Section for WDK 4N Blue	100

'W' Series Fuse Terminals

WSI 6	1011000000	6.3A Fuse Terminal	50
WAP	1050000000	End Section	50

End Brackets

EW 35	0383560000	End Bracket	50
WEW 35/1	1059000000	End Bracket	50
WEW 35/2	1061200000	End Bracket	50

'W' Series Earth Terminals

Type	Part No.	Description	Pack
WPE 2.5*	1010000000	Green/Yellow	100
WPE 4	1010100000	Green/Yellow	100
WPE 6	1010200000	Green/Yellow	50
WPE 10	1010300000	Green/Yellow	50
WPE 16	1010400000	Green/Yellow	50
WPE 16N **	1019100000	Green/Yellow	50
WPE 35	1010500000	Green/Yellow	25
WPE 35N **	1717740000	Green/Yellow	20
WPE 50N	1846040000	Green/Yellow	10
WPE 70N	9512200000	Green/Yellow	10

\* requires an End Plate. All others enclosed. \*\* Low profile style terminals

Pluggable cross-connection system for bestselling WDU 2.5/4

Type	Part No.	Description	Pack
ZQV 2.5N	1693800000	2 Way Yellow*	60
ZQV 2.5N	1693810000	3 Way Yellow*	60
ZQV 2.5N	1693820000	4 Way Yellow*	60
ZQV 2.5N	1693880000	10 Way Yellow*	20
ZQV 4 N	1758260000	10 Way Yellow*	20
ZQV 4 N	1758270000	41 Way Yellow*	10

\* Black, blue or red available on request.



## Cross Connections for 'W' Series

**WDU 1.5/2.5**

Type	Part No.	Pack	Description
WQV 2.5/2	1053660000	50	2 Way
WQV 2.5/3	1053760000	50	3 Way
WQV 2.5/4	1053860000	20	4 Way
WQV 2.5/10	1054460000	50	10 Way

**WDU 4**

WQV 4/2	1051960000	50	2 Way
WQV 4/3	1054560000	20	3 Way
WQV 4/4	1054660000	50	4 Way
WQV 4/10	1052060000	50	10 Way

**WDU 6**

WQV 6/2	1052360000	20	2 Way
WQV 6/3	1054760000	50	3 Way
WQV 6/4	1054860000	50	4 Way
WQV 6/10	1052260000	50	10 Way

**WDU 10**

WQV 10/2	1052560000	50	2 Way
WQV 10/3	1054960000	50	3 Way
WQV 10/4	1055060000	50	4 Way
WQV 10/10	1052460000	20	10 Way

**WDU 16**

Type	Part No.	Description	Pack
WQV 16/2	1053260000	50	2 Way
WQV 16/3	1055160000	50	3 Way
WQV 16/4	1055260000	50	4 Way
WQV 16/10	1053360000	20	10 Way

**WDU 16N**

WQV 16N/2	1636560000	50	2 Way
WQV 16N/3	1636570000	50	3 Way
WQV 16N/4	1636580000	50	4 Way

**WDU 35**

WQV 35/2	1053060000	50	2 Way
WQV 35/3	1055360000	50	3 Way
WQV 35/4	1055460000	50	4 Way
WQV 35/10	1053160000	20	10 Way

**WDU 35N**

WQV 35N/2	1079200000	20	2 Way
WQV 35N/3	1079300000	20	3 Way
WQV 35N/4	1079400000	20	4 Way

## 'Z' Series Terminals and Accessories (Screwless)



Type	Part No.	Description	Pack
ZDU 2.5	1608510000	2 Connection Terminal	100
ZAP/TW1	1608740000	End Section for ZDU 2.5	50
ZDU 2.5/3AN*	1608540000	3 Connection Terminal	100
ZAP/TW2	1608770000	End Section for ZDU 2.5/3AN	50
ZDU 2.5/4AN*	1608570000	4 Connection Terminal	100
ZAP/TW3	1608800000	End Section for ZDU 2.5/4AN	50
ZDU 2.5/2X2AN*	1608600000	4 Connection Terminal (Broken)	100
ZAP/TW3	1608800000	End Section for ZDU 2.5/2 x 2 AN	50
ZDU 4	1632050000	2 Connection Terminal	100
ZAP/TW4	1632090000	End Section for ZDU 4	50
ZDU 6	1608620000	2 Connection Terminal	50
ZAP/TW5	1608830000	End Section for ZDU 6	50
ZDK 2.5	1674300000	Double Deck Terminal	50
ZAP/TW ZDK 2.5	1674730000	End Section for ZDK 2.5	20
ZDK 2.5 Blue	1674380000	Double Deck Terminal	50
ZAP/TW ZDK 2.5 Blue	1748800000	End Section for ZDK 2.5	20
ZSI 2.5	1616400000	Fuse Terminal	50
ZAP/TW3	1608800000	End Section for ZSI	50



Type	Part No.	Description	Pack
WDU 1.5ZZ	1031400000	4 Connection Terminal Beige	100
WDU 2.5/1.5/ZR	1024700000	3 Connection Terminal Beige	100
WDU 2.5/1.5/ZR	1024780000	3 Connection Terminal Blue	100
WAP	1050000000	End Section	50
WAP	1050100000	Partition	50

SAK Type Terminals For TS 32 and TS 35 rail mounting



Type	Part No.	Description	Pack
SAK 2.5/32	0279660000	26A Terminal	100
SAK 2.5/35	0380460000	27A Terminal	100
AP	0279560000	End Section	20
TW	0302860000	Partition	20
SAK 4/32	0128360000	36A Terminal	100
SAK 4/35	0443660000	36A Terminal	100
SAK 6N/32	0193260000	47A Terminal	100
SAK 6/35	0380560000	47A Terminal	100
SAK 10/32	0110060000	65A Terminal	100
SAK 10/35	0443760000	65A Terminal	80
AP	0117960000	End Section (4 – 10)	20
TW	0130160000	Partition (4 – 10)	20
SAK 16/32	0271060000	87A Terminal	50
SAK 16/35	0380660000	87A Terminal	50
AP	0271160000	End Section	20
TW	0303660000	Partition	20
SAK 35N/32	0550660000	143A Terminal	20
SAK 35N/35	0608260000	143A Terminal	20
AP	0303660000	End Section	20
TW	0304360000	Partition	10
EWK1	0206160000	End Bracket for rail TS32	25
EWK2	0199360000	End Bracket for rail TS32	50
EW35	0383560000	End Bracket for rail TS35	50
SAK 70/32	0340820000	220A Terminal	10
SAK 70/35	0139160000	220A Terminal	10
AP 70/32	0340920000	End Plate	10
AP 70/35	0340960000	End Plate	10



Type	Part No.	Description	Pack
SAK 95/32	0550520000	258A Terminal	10
SAK 95/35	0662220000	258A Terminal	10
AP	0550920000	End Plate	10
EW35	0383560000	End Bracket for rail TS35	50



DK 4 Double Deck

'Double Deck' terminals for TS32 and TS35 Rail Mounting. 440V 27 amp (per current bar) for cables 0.5 – 4 sq mm solid and stranded, terminal 6 mm thick.

Type	Part No.	Description	Pack
DK 4Q/32	0590060000	Terminal	100
DK 4Q/35	0590160000	Terminal	100
<b>DK 4QV is cross connected internally to give four clamping points of the same polarity.</b>			
DK 4QV/32	0590260000	Terminal Internally Commoned	100
DK 4QV/35	0363660000	Terminal Internally Commoned	100
TW	0474700000	Partition	20
AP	01397160000	End Section	20
EWK1	0206160000	End Bracket for rail TS32	25
EW35	0383560000	End Bracket for rail TS35	50

DLD Triple Deck

DLD 2.5/35	1784180000	Terminal	100
AP DLD 2.5DB	1784210000	End Section	20 Earth Terminals

Disconnect and CT Terminals



Type	Part No.	Description	Pack
SAKR	0412160000	Terminal	100
<i>0.22 to 4 sq mm 440V 10A, 6.5 mm Thick.</i>			
AP	0211360000	End Section	20
EWK	0206160000	End Bracket	25
DKT 4/32	0687360000	Double Deck disconnect	100
DKT 4/35	0687460000	Double Deck disconnect	100
AP	0687560000	End Section	20
EWK1	0206160000	End Bracket TS32	25
EW35	0383560000	End Bracket TS35	50
SAKT 1/32	0437920000	Terminal	50
SAKT 1/35	0105620000	Terminal	50
<i>0.5 to 6 sq mm 440V 25A, 8 mm Thick.</i>			
AP	0146720000	End Section	20
TW	0242920000	Partition	20
SAKT 2/32	0330620000	Terminal	50
SAKT 2/35	0105920000	Terminal	50
<i>0.5 to 6 sq mm 440V 25A, 8 mm Thick.</i>			
AP	0329120000	End Section	20
TW	0351820000	Partition	20

## 'A' Series Terminals

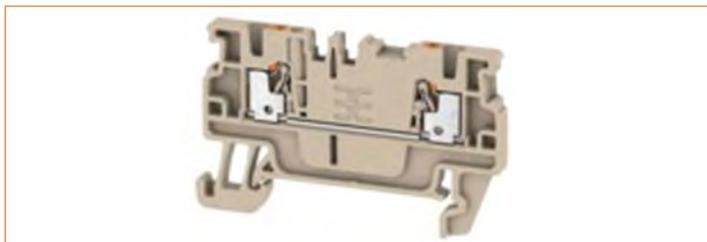
### Spring connection with PUSH IN technology (A-Series)

#### Feed-through terminal blocks

Increase your efficiency during installations without compromising on safety. The innovative PUSH IN technology reduces connection times for solid conductors and conductors with crimped-on wire-end ferrules by up to 50 percent compared to tension clamp terminals. The conductor is simply inserted into the contact point as far as the stop and that's it – you have a safe, gas-tight connection.

Even stranded-wire conductors can be connected without any problem and without the need for special tools.

Safe and reliable connections are crucial, especially under harsh conditions, such as those encountered in the process industry. PUSH IN technology guarantees optimal contact security and ease of handling, even in demanding applications.



Type	Part No.	Description	Pack
A2C 1.5	1552790000	1.5sq., 17.5A Terminal Beige	100
A2C 1.5 BL	1552820000	1.5sq., 17.5A Terminal Blue	100
AEP 2C 1.5	1552060000	End Section Beige	50
AEP 2C 1.5 BL	1552610000	End Section Blue	50
ZQV 1.5N/2	1985410000	2 Way Cross Connection Unit	20
ZQV 1.5N/10	1985580000	10 Way Cross Connection Unit	20
A2C 2.5	1521850000	2.5sq., 24A Terminal Beige	100
A2C 2.5 BL	1521880000	2.5sq., 24A Terminal Blue	100
AEP 2C 2.5	1514400000	End Section Beige	50
AEP 2C 1.5 BL	1514420000	End Section Blue	50
ZQV 2.5N/2	1527450000	2 Way Cross Connection Unit	60
ZQV 2.5N/10	1527690000	10 Way Cross Connection Unit	20
A2C 4	2051180000	4.0sq., 32A Terminal Beige	100
A2C 4 BL	2051210000	4.0sq., 32A Terminal Blue	100
AEP 2C 4	2051680000	End Section Beige	50
AEP 2C 4 BL	2051690000	End Section Blue	50
ZQV 4N/2	1527930000	2 Way Cross Connection Unit	60
ZQV 4N/10	1528090000	10 Way Cross Connection Unit	20
A2C 6	1992110000	6.0sq., 41A Terminal Beige	100
A2C 6 BL	1552820000	6.0sq., 41A Terminal Blue	100
AEP 2C 6	1991970000	End Section Beige	50
AEP 2C 6 BL	1991950000	End Section Blue	50
ZQV 6N/2	1985740000	2 Way Cross Connection Unit	60
ZQV 6N/4	1985780000	4 Way Cross Connection Unit	60
ZQV 6N/10	1528090000	10 Way Cross Connection Unit	20



Type	Part No.	Description	Pack
A2T 2.5	1547610000	2.5sq., 24a Double Deck Beige	50
A2T 2.5 BL	1547620000	2.5sq., 24a Double Deck Blue	50
AEP 2T 2.5	1547690000	End Section Beige	20
AEP 2T 2.5 BL	1547620000	End Section Blue	20
ZQV 2.5N/2	1527540000	2 Way Cross Connection Unit	60
ZQV 2.5N/10	1527690000	10 Way Cross Connection Unit	20



Type	Part No.	Description	Pack
A2C 1.5 PE	1552060000	1.5sq. Earth Terminal	50
AEP 2C 1.5	1552600000	End Section, Beige	50
A2C 2.5 PE	1521680000	2.5sq. Earth Terminal	50
AEP 2C 2.5	1514400000	End Section, Beige	50
A2C 4.0 PE	2051360000	4.0sq. Earth Terminal	50
AEP 2C 4	2051680000	End Section, Beige	50
A2C 6.0 PE	1991810000	6.0sq. Earth Terminal	50
AEP 2C 6	1991970000	End Section, Beige	50

Many more sizes and variations available within the range.

## 'W' Series High Current Terminals

### Terminals for Rails TS32 and TS35

Type	Part No.
WDU 70/32	1031500000
WDU 70/95	1024600000
WDU 70/95 BL	1024680000
KB WDU 70/3	1026700000
KB WDU 70/4	1026800000
KB WDU 70/5	1026900000
WDU 120	1024500000
WDU 120 BL	1024580000
WDU 120/32	1031600000
KB WDU 120/3	1026400000
KB WDU 120/4	1026500000
KB WDU 120/5	1026600000

### End Brackets

Type	Part No.
WEW 1/32	1067600000
WEW 35/1	1059000000
EWK 2	0199360000
WEW 35/2	1061200000
WTW WFF 35	1067100000
WTW WFF 70	1067200000
WTW WFF 120	1067300000
WTW WFF 185/300	1067400000



### High Current Terminals

Type	Part No.
WFF 35/32	1031700000
WFF 35	1028300000
WFF 35 Blue	1028380000
WFF 70/32	1031800000
WFF 70	1028400000
WFF 70 Blue	1028480000
WFF 120/32	1031900000
WFF 120	1028500000
WFF 120 Blue	1028580000
WFF 185/32	1032000000
WFF 185	1028600000
WFF 185 Blue	1028680000
WFF 300/32	1032100000
WFF 300/32 Blue	1032180000
WFF 300	1028700000
WFF 300 Blue	1028780000



### Terminal Covers

Type	Part No.
WAH 35	1064460000
WAH 35 Blue	1064480000
WAH 70	1064560000
WAH 70 Blue	1064580000
WAH 120	1064660000
WAH 120 Blue	1064680000
WAH 185/300	1064760000
WAH 185/300 Blue	1064780000

### Cross Connect Bars

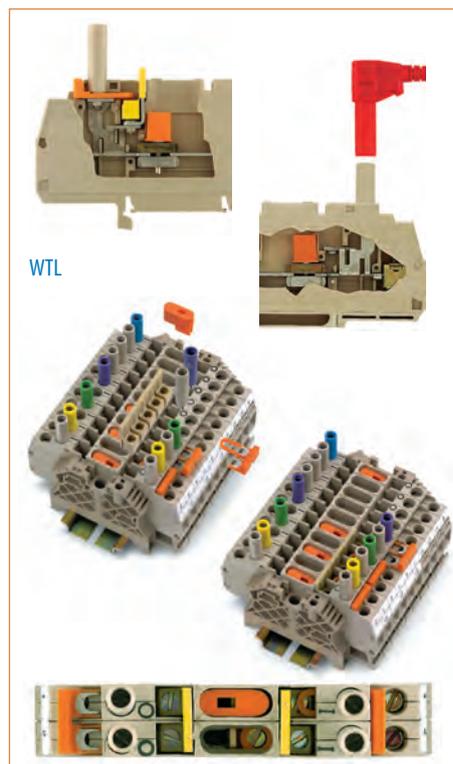
Type	Part No.
WQL 2/35	1064900000
WQL 3/35	1065400000
WQL 2/70	1065000000
WQL 3/70	1065500000
WQL 2/120	1065100000
WQL 3/120	1065600000
WQL 2/185	1065200000
WQL 3/185	1065700000
WQL 2/300	1065300000
WQL 3/300	1065800000



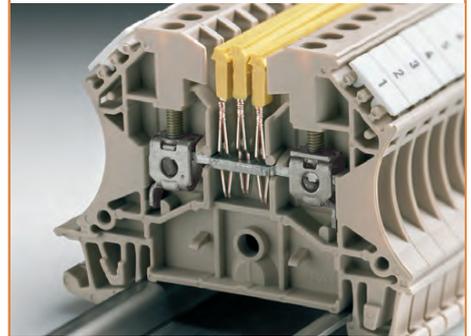
### W Series Disconnect Test Terminal Block

Type	Part No.	Description	Pack
WKS 1/2	1604270000	Cross Connection	50
WTL 6/3/STB	1018600000	57 Amp 10sq Terminal	20

*Test-disconnect terminal, Screw connection, 6 mm<sup>2</sup>, 500 V, 41 A, sliding, Dark Beige, Screw connection, Disconnection element, for plug-in cross-connector*



## Weidmüller



### High contact reliability for all standard electrical functions

For a long time now, Weidmüller's W-Series terminal with screw clamp connection technology, has set the standard.

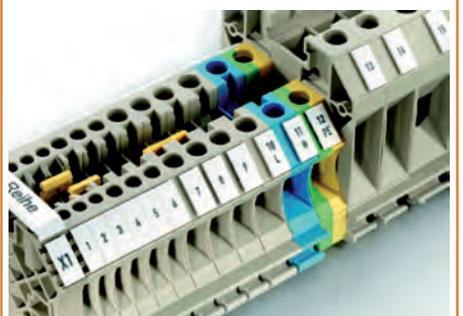


The W-Series offers solutions for conductor cross-sections between 0.05 and 300 mm<sup>2</sup>. The cross-connectors are pluggable (ZQV) or screwable (WQV) in a terminal block.



The combination of benefits is unequalled and puts the W-Series in a leading position on the market.

Thanks to the patented design of Weidmüller's W-Series screw connection technology, it is possible for two conductors of the same cross-section to be connected in one and the same clamping point without difficulty.



## Earth and Fuse Terminals for TS 32 and TS 35

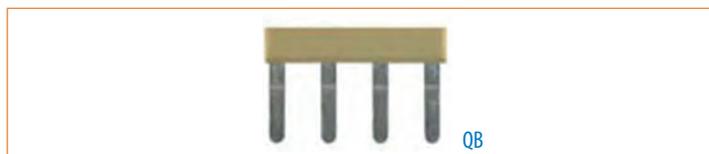


Type	Part No.	Description	Pack
EK 2.5N/32	0474360000	Earth Terminal	100
EK 2.5/35	0661060000	Earth Terminal	100
EK 4/32	0354560000	Earth Terminal	100
EK 4/35	0661160000	Earth Terminal	100
EK 6/35	0661260000	Earth Terminal	80
EK 10/32	0354660000	Earth Terminal	80
EK 10/35	0661360000	Earth Terminal	80
EK 16/32	0374660000	Earth Terminal	50
EK 35/32	0354760000	Earth Terminal	20
EK 35/35	0661460000	Earth Terminal	20
EK 1/32	0322900000	Earth Terminal	20
EK 2/32	0323100000	Earth Terminal	20
EK 16/35	0660400000	Earth Terminal	20



## Cross Connecting Combs

Type	Pitch	Part No.	Pack
QB58 STR	8mm	0545400000	10
QB58 ANG	8mm	0545300000	10
QB58 Insulation Strip		0546000000	1
QB75 STR	6mm	0535200000	10
QB75 ANG	6mm	0526400000	10
QB75 Insulation Strip		0526700000	1



## SAKT Cross Connection Accessories

Type	Part No.	Description	Pack
QB2	0205700000	Comb	50
QB3	0205800000	Comb	50
QB4	0205900000	Comb	50
QB10	0343800000	Comb	20
QVS2	0307300000	Slide Link	20
QVS3	0329300000	Slide Link	10
QVS4	0307400000	Slide Link	20
VH19	0318000000	Distance SLV	50
BS (M3 x 25)	0334700000	Screw	50



## Fuse Terminals for rail mounting

500Va.c. 6.3 amp for cables 0.5 – 10 sq mm 25 x 5mm indicator & 20 x 5mm non – indicator cartridge fuses. Terminal 13 mm thick.

Type	Part No.	Description	Pack
SAKS 1/32	0191120000	Fuse Terminal (indicator)	20
SAKS 1/35	0501520000	Fuse Terminal (indicator)	20
SAKS 1/32	0191220000	Fuse Terminal (non-indicator)	20
SAKS 1/35	0501620000	Fuse Terminal (non-indicator)	20
TW	0474700000	Partition	20
AP	0191320000	End Section	20
EWK1	0206160000	End Bracket TS32	25
EW35	0383560000	End Bracket TS35	50

500Va.c. 13 amp for cables 0.5 – 10 mm sq solid/stranded and 1" x 1/4" cartridge fuses. Terminal 8mm thick.

Type	Part No.	Description	Pack
SAKS 3/32	0211120000	Fuse Terminal	50
SAKS 3/35	0667420000	Fuse Terminal	50

Accessories as above.



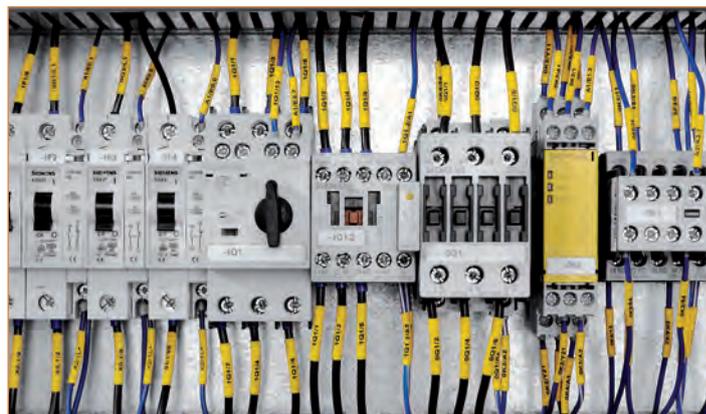
500Va.c. 6.3 amp for cables 0.5 – 4 sq mm solid/stranded and 20 x 5 mm cartridge with combined foot for TS32 mounting or TS35 mounting. Terminal 8mm thick

Type	Part No.	Description	Pack
ASK1	0474560000	Fuse Terminal	100
ASK1 Blue	0474580000	Fuse Terminal	100
AP	0380360000	End Section	20
EWK1	0206160000	End Bracket TS32	25
EW35	0383560000	End Bracket TS35	50

500 Va.c. 6.3 amp Combined 20 x 5mm Fuse and Feedthrough Terminals for cables 0.22 – 4 sq mm solid/stranded. Terminal 8 mm thick.

Type	Part No.	Description	Pack
KDKS 1/32	9503300000	Fuse Terminal	50
KDKS 1/35	9532440000	Fuse Terminal	50
AP	9532470000	End Section	20
EWK1	0206160000	End Bracket TS32	25
EW35	0383560000	End Bracket TS35	50

Fused Terminals also available for the following fuse sizes: 1 1/4" x 1/4", Neozed and NDZ



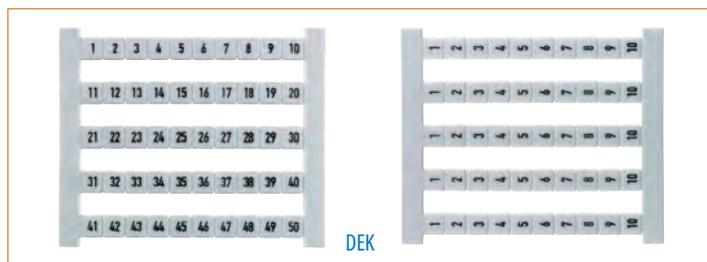
### Group Markers – Dekafix Marking System



Type	Part No.	Description
SCHT5	0292460000	Group Marker
ES05	1607710000	Paper Strip (60 per sheet)
STR5	0294000000	Transparent Cover
SCHT5s	1631930000	Group Marker
ES05s	1631920000	Paper Strip (140 per sheet)
STR5s	1631940000	Transparent Cover
SCHT7	0517960000	Group Marker
ES07	1607720000	Paper Strip
STR7	0515300000	Transparent Cover

The Dekafix system consists of white marking tags available in 5 mm, 6 mm and 6.5 mm widths to correspond to the width of terminal being marked.

Dekafix are supplied on cards of 5 strips with 10 tags per strip (50 tags per card). As a result, 10 terminals can be marked with one continuous strip of the appropriate sized Dekafix.



#### DEKAFIX FW Consecutive

Type	Part No.	Pack
DEK 5FW	047346/****	10 Cards x 50 Tags 1-50, 51-100 etc.

#### DEKAFIX 6 FW Consecutive

Type	Part No.	Pack
DEK 6FW	046866/****	10 Cards x 50 Tags 1-50, 51-100 etc.

#### DEKAFIX 6.5 FW Consecutive

Type	Part No.	Pack
DEK 6.5FW	046816/****	10 Cards x 50 Tags 1-50, 51-100 etc.

Vertical also available.



#### DEKAFIX FZW Consecutive

Type	Part No.	Description / Pack
DEK 5FWZ	052306/****	10 Cards x 50 Tags 1-10, 11-20 etc.
DEK 6FWZ	051896/****	10 Cards x 50 Tags 1-10, 11-20 etc.
DEK 6.5FWZ	051906/****	10 Cards x 50 Tags 1-10, 11-20 etc.

DEK 5 GW	057626/1198	10 Cards x 50 Tags “+”
DEK 5 GW	057626/1199	10 Cards x 50 Tags “-”
DEK 5 GW	057626/1202	10 Cards x 50 Tags “EA”
DEK 5 GW	057626/1215	10 Cards x 50 Tags “FREQ”

50 ~/+/-/\* per card.

#### Dekafix Marking System

Type	Part No.	Description	Pack
DEK 5 GW	052266/****	10 Cards x 50 Tags - 1, 2, 3 etc.	50

50 Individual Letters per card 1 to 100.

Type	Part No.	Description	Pack
DEK 5 GW	052276/****	10 Cards x 50 Tags - A, B, C etc.	50

50 Individual Letters per card A - Z.

DEK 5 GW	052236/1075	10 Cards x 50 Tags
DEK 5 GW	052236/1076	10 Cards x 50 Tags
DEK 5 GW	052236/1077	10 Cards x 50 Tags

50 L1, L2, or L3 per card.

#### DEKAFIX 0 Unprinted (White)

Type	Part No.	Pack
DEK 5.0	0473360000	10 Cards x 50 Tags
DEK 6.0	0468560000	10 Cards x 50 Tags
DEK 6.50	0468060000	10 Cards x 50 Tags

WS 12/5	1061060000	20 Cards x 10 Tags
WS 12/6	1061160000	20 Cards x 10 Tags

#### Marking pens

Type	Part No.	Pack
Black Pen	0508401694	10

Colours available on request.

## Custom Printed Tags and Labels

We can print your Terminal Marker Tag's for any brand of Terminals and we custom print Cable Markers also.

High Quality Markers computer printed to meet all your needs. Custom Printed Tags available on request.

No minimum quantity. 7 figures, letters or numbers per tag as standard. Call our sales team on 01 453 2522



### Weidmüller Thermal transfer printer (THM MMP )



The higher the level of automation, the more complex the structure of a control cabinet. Electrical connectivity has made it more important than ever for installed components to be properly labelled. If servicing needs to be carried out, the cabinet must appear orderly and comprehensible at first glance. This is where the marking system comes to the fore. It is also an important safety feature of the cabinet infrastructure.



With MultiMark you have a fast and reliable marking system at your disposal for seamlessly implementing virtually any kind of marking. Terminals, wires, cables or devices – the MultiMark product family offers a well-structured, practical range of markers linked to our advanced configuration software M-Print® PRO for all areas of use.

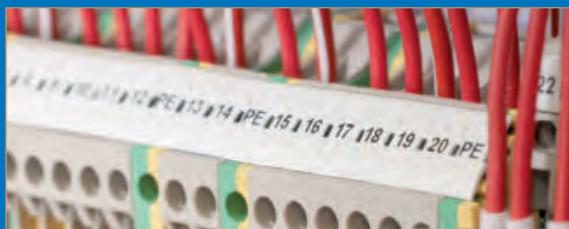
Cost-effectiveness, in particular for small and medium print volumes, results from the integration of the THM MMP rapid thermal transfer printer – without compromising the quality. Markings are easy to read and resistant to external influences.

Identification is indispensable for all electrical equipment – for ease of installation, safe operation and efficient maintenance. With MultiMark you don't have to make compromises and can rely on a cost-effective system of software, printers and markers.



## MultiMark is the smart all-in-one solution

### The concept for cost-effective marking



Industry 4.0 is leading to increasingly complex connection technology and a correspondingly high demand for systematic and fast identification inside the control cabinet.

MultiMark is a marking system that perfectly addresses today's requirements with coordinated software and printer technology, while also proving to be extremely cost-effective for small and medium sized projects.

#### Your benefits with MultiMark

- A printer for all jobs
- Ideal for small and medium print volumes
- Virtually maintenance-free thanks to thermal transfer technology
- Excellent readability (resolution: 300 dpi)
- Flexibility provided by modular perforation and cutting unit
- The contact pressure roller can be changed in 30 seconds
- High output, from 250 Dekafix markers/min.

## Weidmüller Printjet Advanced 230v



Type	Part No.	Pack
Printjet Advanced 230v	1324380000	1



### Selection of tags for use with the Printjet Advanced



Type	Part No.	Description	
SFC 1/12	1747320001	SlimFix Clip cable markers	0.75–2.5 sq
SFC 2/12	1758320001	SlimFix Clip cable markers	2.5–4.0 sq
ESG 8/17	1674740000	Tags for Telemecanique equipment	
SCHS 2	1720600000	Tag mounting bar strip self-adhesive	
ESG 8/17	1720610000	Blank tags to fit tag mounting bar	
ESG 9/11K	1857440000	Blank self-adhesive markers	
ESG 9/17K	1674760000	Blank self-adhesive markers	
WS 12/5	1609860000	Blank terminal markers	
WS 12/6	1609900000	Blank terminal markers	
MF 10/5	1677160000	Multi-fit blank terminal markers	
MF 10/6	1677220000	Multi-fit blank terminal markers	
SF 00/12	1919290000	SlimFix cable markers	< 0.25 sq
SF 0/12	1919240000	SlimFix cable markers	0.25–0.5 sq
SF 1/12	1919390000	SlimFix cable markers	0.5–0.75 sq
SF 2/12	1919490000	SlimFix cable markers	0.75–1.5 sq
SF 3/21	1918910000	SlimFix cable markers	1.5–2.5 sq
SF 4/12	1919600000	SlimFix cable markers	2.5–4.0 sq
SF 5/12	1919650000	SlimFix cable markers	6.0–10.0 sq
SF 6/21	1919190000	SlimFix cable markers	10.0–16.0 sq

Other types available on request.



## Weidmüller Printjet Advanced 230v

Flexible printing on plastic and metal markers



The PrintJet ADVANCED is an inkjet printer which prints on plastic markers in MultiCard format and metal markers of the Metallicard Family.

Thanks to its high loader capacity, it is ideal for printing large volumes in continuous operation.

The precise colour printing and thermal fixing guarantee optimum print results for the durable identification of equipment.

With these properties, The PrintJet Advanced brings efficiency to the operating process – whether operated with the Mprint PRO Software or as a stand alone solution with pre configured templates.

Your benefits at a glance:

- Precise colour printing
- Serial printing of metal markers
- High level of automation thanks to loader capacity of 30 MultiCards
- Durable and robust markers thanks to thermal fixing
- User-friendly operation thanks to intuitive touch display
- Can be used as stand-alone solution

## Weidmüller Electronic Terminals, Power Supplies and Ethernet Switches



Type	Description	Part No.
WSI 6/LD	10 – 36V DC/AC	1011300000
WSI 6/LD	30 – 70V DC/AC	1012200000
WSI 6/LD	60 – 150V DC/AC	1012300000
WSI 6/LD	250V AC	1012400000
WAP 2.5 – 10	End Plate	1050000000

\* a defective fuse causes LED to light

### Lamp Test – Diode Terminal Blocks

Type	Description	Part No.
WDK 2.5/2D		8014670000
WDK 2.5/2D		1022600000
WAP WDK 2.5	End Plate	1059100000

Other versions available.



### Low Voltage Indicator Terminals

#### DC Voltage Indicator +/-

Type	Description	Part No.
24V DC Red	WDK 2.5 LD	1023600000
24V DC Green	WDK 2.5 LD	8023610000

#### DC Voltage Indicator +/-

Type	Description	Part No.
24V DC Red	WDK 2.5 LD	8023630000
24V DC Green	WDK 2.5 LD	8010040000
WAP WDK 2.5	End Plate	1059100000

## Weidmüller MICROSERIES



### Relays and Opto-Couplers

Description	Part No.
6A c/o contact – coil voltage 5VDC	8556080000
6A c/o contact – coil voltage 12VDC	8556070000
6A c/o contact – coil voltage 24VDC	8533640000
6A c/o contact – coil voltage 24VUC	8556050000
6A c/o contact – coil voltage 48VUC	8556040000
6A c/o contact – coil voltage 60VDC	8556060000
6A c/o contact – coil voltage 120VUC	8556030000
6A c/o contact – coil voltage 230VAC	8556020000

### Weidmüller Industrial Ethernet Equipment

#### Unmanaged Switches – WaveLine

Description	Part No.
3 x RJ45 ports unmanaged IP20	8897710000
5 x RJ45 ports unmanaged IP20	8896940000
8 x RJ45 ports unmanaged IP20	8896970000

#### Unmanaged Switches – ECO-Line

Description	Part No.
5 x RJ45 ports unmanaged IP20	8808230000
8 x RJ45 ports unmanaged IP20	8829430000

#### Unmanaged Switches – Advanced Line

Description	Part No.
16 x RJ45 ports unmanaged IP20	8808270000
24 x RJ45 ports unmanaged IP20	8808300000

#### Managed Switches

Description	Part No.
8 x RJ45 ports managed IP20	8845740000
16 x RJ45 ports managed IP20	8845800000
24 x RJ45 ports managed IP20	8845830000

## Weidmüller and ETE Power Supplies

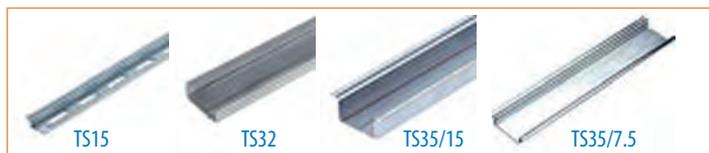


Description	Part No.
Input voltage	85 – 264 V a.c. 120 – 370 V d.c.
Output	24V d.c. @ 1 amps – 22.5 watt
Input voltage	85 – 264 V a.c. 120 – 370 V d.c.
Output	24V d.c. @ 2 amps – 45 watt
Input voltage	85 V a.c. – 264 V a.c. 120 – 370 V d.c.
Output	24V d.c. @ 3.0 amps – 72 watt
Input voltage	85 V a.c. – 264 V a.c. 120 – 370 V d.c.
Output	24 V d.c. @ 5 amps – 120 watt
Input voltage	85 V a.c. – 264 V a.c. 120 – 370 V d.c.
Output	24 V d.c. @ 10 amps – 240 watt

### Switched Mode Power Supplies with Single and Three Phase Inputs

Input range	47 – 63 Hz	8778870000
Input range	190 – 265 V 1Ph	
Output range	24V DC 20A	
Adjustable output range	22V to 29V DC (29V max 16A)	
Input range	47 – 63 Hz	8708710000
Input range	340 – 550V 3Ph	
Output range	24V DC 20A	
Adjustable output range	22V to 29V DC (29V max 19A)	
Input range	47 – 63 Hz	8708700000
Input range	340 - 550V 3Ph	
Output range	24V DC 10A	
Adjustable output range	22.5 to 27.5V DC	

## Terminal Rails



Type	Part No.	Depth	Length
TS15	0117500000	5.5 mm Slotted	2 Mts
TS32	0122800000	15 mm Plain	2 Mts
TS35/7.5	0383400000	7.5 mm Plain	2 Mts
TS35/7.5	0514570000	7.5 mm Slotted	2 Mts
TS35/15/1.5	0236400000	15 mm Plain, Heavy Duty, 1.5mm Thick	2 Mts
TS35/15/2.3	0498000000	15 mm Plain, Heavy Duty, 2.3mm Thick	2 Mts
TS35/15/1.5	1805980000	15mm Slotted, Heavy Duty, 1.5mm Thick	2 Mts
TSK35	0514300000	15 mm PVC	2 Mts
TAS20	0316400000	20 x 10 mm	2 Mts

All rails pre-cut and drilled on request.

### Angle Bracket

Type	Part No.	Pack
TSTW	021900000	10



MK4/16

### Terminal Strips Screw Fixing

36 amp 440V, for Cables 0.5 – 4 sq mm, Solid and Stranded.

Type	Part No.	Description	Pack
BK2	0624720000	2 Way Terminal Strip	100
BK3	0625020000	3 Way Terminal Strip	100
BK4	0625120000	4 Way Terminal Strip	100
BK6	0625220000	6 Way Terminal Strip	50
BK12	0625320000	12 Way Terminal Strip	50

40A 690V, for Cables 0.5 – 10 sq mm, Solid & Stranded

Type	Part No.	Depth	Pack
MK6/4/E	7906240000	4 Way Terminal Strip	20
MK6/6	0620120000	6 Way Terminal Strip	20

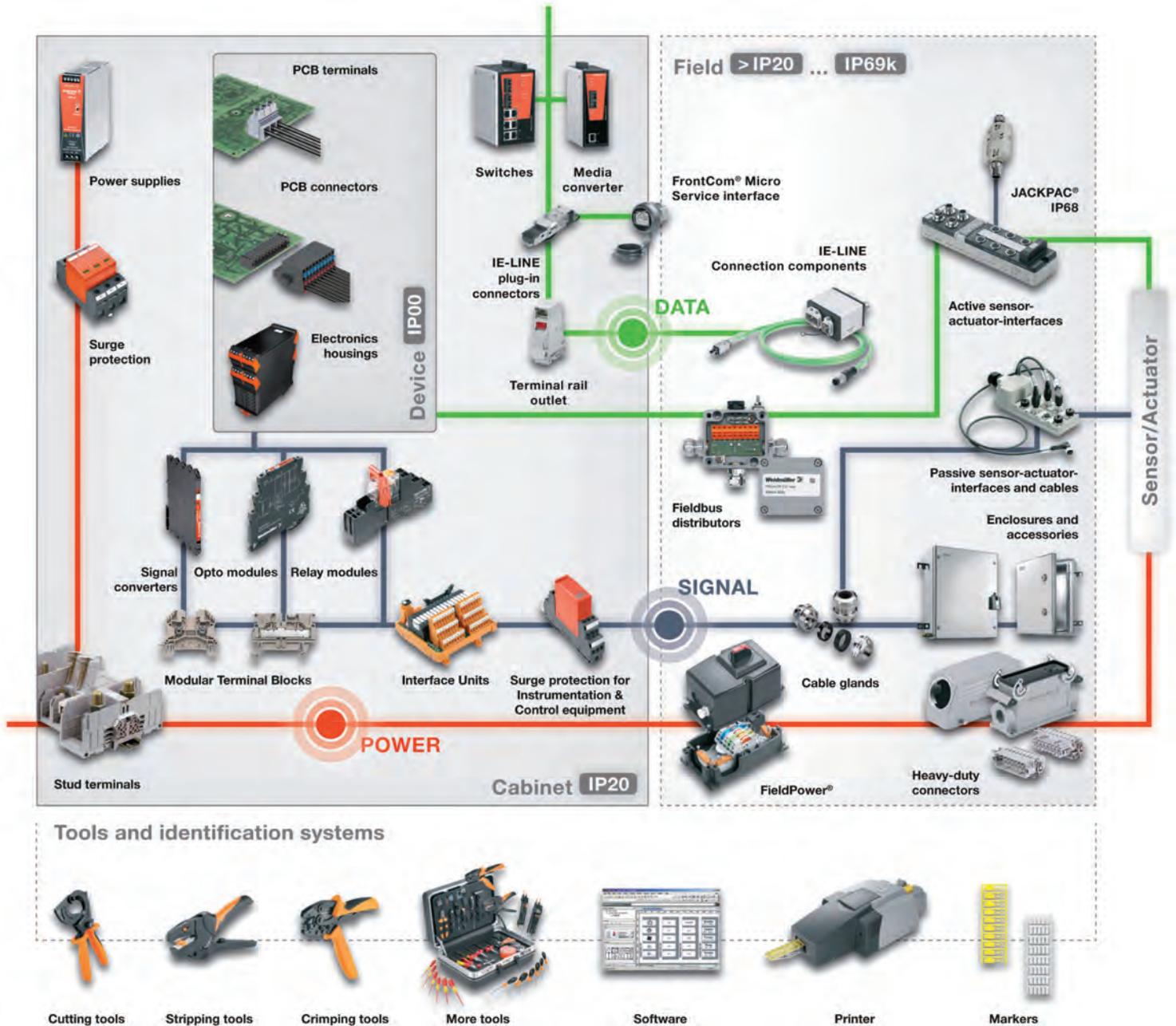
Other sizes also available. Prices available on request.

25A 400V, for Cables 0.5 – 2.5 sq mm, Solid & Stranded

Type	Part No.	Depth	Pack
MK3/12	0243520000	12 Way Terminal Strip	20

Other sizes also available. Prices available on request.

Weidmüller Go – Product Range



*Weidmüller are a leading provider of solutions for Electrical Connectivity, Transmission and conditioning of Power, Signal and Data in Industrial Environments.*

**AP HASLAM provide all WEIDMÜLLER products and solutions for Electrical Connectivity and Electronics.**

The combination of these components for specific applications of our customers leads to integrated solutions for the electrical connections, for the transmission and conditioning of power, signals and data.

In this way, Weidmüller offers its customers consistently competitive and economic advantages for the areas of electronics and electrical connections.

*Power, Signals, Data.*

*The system components Weidmüller.*

*Electrical connections and electronics with added value.*

Crimp contact	Crimp type	Description	Conductor crosssection in mm <sup>2</sup>	AWG	Crimping tool	Order No. tool
Wire end ferrules		with plastic collar	0,5...2,5	20...14	Stripax Plus 2.5	902000000
		with / without plastic collar	0,14...6	26...10	PZ 6 roto	9014350000
			0,14...1,5	24...16	PZ 1.5	9005990000
			0,5...4	20...12	PZ 4	9012500000
		with / without plastic collar	0,14...6	24...10	PZ 6 HEX	9013650000
		with / without plastic collar	0,25...6	24...10	PZ 6/5	9011460000
		with / without plastic collar	0,5...6	20...10	PZ 3	0567300000
		with / without plastic collar	6...16	10...6	PZ 16	9012600000
			25...50	3...1	PZ 50	9006450000
	Twin wire end ferrules		Twin wire end ferrules	0,5...1	20...17	PZ 1.5
0,5...4				20...12	PZ 6 HEX	9013650000
0,5...2,5				20...14	PZ 4	9012500000
0,5...4				20...12	PZ 6/5	9011460000
0,5...4				20...12	PZ 3	0567300000
0,5...4				20...12	PZ 6 roto	9014350000
6...16				10...6	PZ ZH 16	9013600000
Stamped contacts		Weidmüller DFF series	0,22...2,5	24...12	HTF DFF	9014140000
		Weidmüller ZRV and MKF series	0,2...0,35 / 0,5...1	24...22 / 20...17	HTF ZRV	9014840000
		Weidmüller FEKO ZRV series	0,2...2,5	24...12	HTF AFK 2.5	9201040000
		Weidmüller RSV and DSTV-HD Systems	0,14...1,5	26...16	HTF RSV 16	9013560000
			2,5	14...12	HTF RSV 12	9013550000
Turned contacts		Turned HD and HE contacts	4...10	12...7	CTX CM 3,6	9018480000
			0,14...4	26...12	CTX CM 1,6/2,5	9018490000
		Turned HD, HE and HX contacts	0,14...6	26...10	CTIN CM 1,6/2,5	9205430000
			1,5...10	16...7	CTIN CM 3,6	9205440000

Crimp contact	Crimp type	Description	Conductor crosssection in mm <sup>2</sup>	AWG	Crimping tool	Order No. tool
coaxial connectors		coaxial connectors			HTG 58	901200000
					HTG 58/59	901202000
					HTG 59	901201000
					HTG 174	901241000
					HTX 138	901240000
			HTX 188	901199000		
	coaxial connectors			CTX 500	900632000	
				CTX 501	900637000	
				CTX 502	900638000	
insulated / non-insulated connectors		insulated connectors	0,5...2,5	20...14	HTI 15	901440000
			0,5...6	20...10	CTI 6	900612000
			0,5...6	20...10	CTI 6 G	920285000
		non-insulated connectors	0,5...6	20...10	HTN 21	901461000
			0,5...6	20...10	HTN 21 with end stop	901410000
			10...25	7...3	CTN 25 D4	900622000
			10...25	7...3	CTN 25 D5	900623000
modular plug connectors		WE-plug (4, 6 and 8-poles)	0,08...0,25	28...24	TT 864 RS WE	900812000
		WE-plug (4, 6 and 10-poles)	0,08...0,25	28...24	TT 1064 RS WE	900819000
		shielded WE-plug, system Hirose	0,08...0,25	28...24	TT 8 GH	900564000
			0,08...0,25	28...24	TT8 RS MP8	920280000
Other contacts and plugs		SUB-D contacts	0,08...0,5	28...20	HTF SUB-D	901326000
		flat blade connectors and receptacles	0,1...1 (connec. width 2,8)	27...17	HTF 28	901309000
			0,5...2,5 (connec. width 4,8)	20...14	HTF 48	901308000
			0,5...2,5 (connec. width 6,3)	20...14	HTF 63	901340000
			0,5...6 (connec. width 6,3)	20...10	CTF 63	920286000
		fibre optic connectors	Station 1 (hexagon crimp): 3,15 / 6,0 H.- 3,9		HTX LWL	901136000
			Station 2 (round crimp): 4,85 / 6,0 H.- 5,5		HTX LWL	901136000
		IP 67 connector			IE-CT-SC-GOF	920532000
					IE-CT-LC-GOF	920533000
				IE-CT-SC-POF	920534000	
				IE-CT-SC-GOF-P	920535000	

## Plastic Cable Glands and Locknuts

*Wiska IP68 Metric Thread Glands*

Size	Thread length	Cable DIA.	Pack	Part No.
M12	9mm	3 – 7	50	10066410
M16	9mm	4 – 8	50	10063271
M20	10mm	6 – 13	50	10066412
M25	10mm	9 – 17	50	10066413
M32	12mm	13 – 18	25	10063274
M40	12mm	17 – 24	10	10063275
M50	14mm	21 – 35	4	10066416
M63	15mm	34 – 48	3	10066417

*Metric Thread Locknuts*

Gland	Type	Pack	Part No.
M12	EMUG12	100	10060770
M16	EMUG16	100	10060771
M20	EMUG20	100	10060772
M25	EMUG25	100	10060773
M32	EMUG32	100	10060774
M40	EMUG40	50	10060775
M50	EMUG50	25	10060776
M63	EMUG63	10	10060777

*Wiska IP68 Metric Thread complete with locknut – grey*

Size	Thread length	Cable DIA.	Pack	Part No.
M20	10mm	6 – 13	50	10100613
M25	10mm	9 – 17	50	10060941

*Wiska IP68 Metric Thread complete with locknut – red*

Size	Thread length	Cable DIA.	Pack	Part No.
M20	10mm	6 – 13	50	10100614

*Wiska IP68 Metric Thread complete with locknut – white*

Size	Thread length	Cable DIA.	Pack	Part No.
M20	10mm	6 – 13	50	10100611

*Wiska IP68 Metric Thread complete with locknut – black*

Size	Thread length	Cable DIA.	Pack	Part No.
M20	10mm	6 – 13	50	10100612

*Wiska IP68 Metric Long Thread Glands*

Size	Thread length	Cable DIA.	Pack	Part No.
M20	15mm	6 – 13	50	10066392
M25	15mm	9 – 17	50	10066393
M32	15mm	13 – 21	25	10066394
M40	18mm	16 – 28	10	10066395

*Cembre Polyamide Cable Glands*

Size	Thread Length	Cable Dia.	Pack	Part No.
M12	8	3.5-7	100	1900.M12
M16	8	5-10	100	1900.M16
M20	9	7-13	100	1900.M20
M25	10	10-17	50	1900.M25
M32	10	13-21	25	1900.M32
M40	10	19-28	15	1900.M40
M50	12	27-35	10	1900.M50
M63	12	34-45	5	1900.M63

*Cembre Polyamide Locknuts*

Size	Pack	Part No.
M12	100	1143.M12
M16	100	1143.M16
M20	100	1143.M20
M25	100	1143.M25
M32	50	1143.M32
M40	50	1143.M40
M50	50	1143.M50
M63	15	1143.M63

*IP68 PG Thread "Sprint" Glands, RAL 7035, grey*

Size	Panel hole	Cable DIA.	Pack	Part No.
PG7	12.5	3 – 6	50	10066400
PG9	15.2	4 – 8	50	10066401
PG11	18.6	5 – 10	50	10066402
PG13.5	20.4	6 – 12	50	10066403
PG16	22.5	9 – 14	50	10066404
PG21	28.3	11 – 18	50	10066405
PG29	37	15 – 25	50	10066406
PG36	47	21 – 32	50	10066407
PG42	54	28 – 38	50	10066408
PG48	59	35 – 44	50	10066409

*PG Thread Locknuts*

Gland	Type	Pack	Part No.
PG7	MU7	100	10060652
PG9	MU9	100	10060653
PG11	MU11	100	10060654
PG13.5	MU13.5	100	10060655
PG16	MU16	100	10060656
PG21	MU21	100	10060657
PG29	MU29	50	10060658
PG36	MU36	25	10060659
PG42	MU42	25	10060660
PG48	MU48	10	10061025

*IP68 Blue Glands – PG and Metric Thread*

Size	Panel hole	Cable DIA.	Pack	Part No.
M20	20	6 – 12	50	10066180
M25	25	9 – 14	50	10066181
M32	32	10-18	25	10066182
PG7	12.5	3 – 6.5	50	1.209.0702.60
PG9	15.2	4 – 8	50	1.209.0902.60
PG11	18.6	5 – 10	50	1.209.1102.60
PG13.5	20.4	6 – 12	50	1.209.1302.60
PG16	22.5	10 – 14	50	1.209.1602.60
PG21	28.3	13 – 18	50	1.209.2102.60
PG29	37	18 – 25	25	1.209.2902.60
PG36	47	22 – 32	25	1.209.3602.60
PG42	54	32 – 38	25	1.209.4202.60
PG48	59	37 – 44	25	1.209.4802.60

*ATEX certified Nylon Cable Glands and Breather Drains, Stainless Steel Glands and Gaskets**Wiska Sprint – ATEX Cable Gland*

For increased safety EExe, with strain relief, IP68 to 6 bar, metric, polyamide. Black RAL 9005.

Description	Cable range mm	Part No.
M16	4 – 10	10064401
M20	6 – 13	10103365
M25	10 – 17	10103366
M32	13 – 21	10064404
M40	17 – 28	10064405
M50	23 – 35	10064406
M63	31 – 48	10064407

*EEx 'e' Black Polyamide Cable Glands (RAL 9005)*

Size	Thread Length	Cable Dia.	Pack	Part No.
M12	15mm	4-6.5	50	F8031200E
M16	15mm	5-10	50	F8031600E
M20	15mm	7-10	50	F8032050E
M25	15mm	12-18	20	F8032500E
M32	15mm	16-25	20	F8033200E
M40	16mm	22-32	20	F8034000E
M50	16mm	28-38.5	5	F8035000E
M63	16mm	40-48	5	F8036000E

*EEx 'e' IP68 Polyamide Cable Glands PG Thread, black*

Description	Cable range mm	Part No.
PG7	3 – 6.5	1.291.0701.60
PG9	4 – 8	1.291.0901.60
PG11	5 – 10	1.291.1101.60
PG13	6.5 – 12	1.291.1301.60
PG16	10 – 14	1.291.1601.60
PG21	13 – 18	1.291.2101.60
PG29	18 – 25	1.291.2901.60
PG36	22 – 32	1.291.3601.60
PG42	32 – 38	1.291.4201.60
PG48	37 – 44	1.291.4801.60

**Sprint – ATEX Cable Gland for Intrinsic Safety**



*EEx 'i' with strain relief, IP68 to 6 bar (24h), metric, polyamide.*

Fitting: Black RAL 9005 Cap Nut: Blue RAL 5012.

Description	Cable range mm	Part No.
M16	4 – 10	1010372
M20	6 – 13	1010373
M25	10 – 17	1010374
M32	13 – 21	1010375
M40	17 – 28	1010376
M50	23 – 35	1010377
M63	31 – 48	1010378

*EEx 'e' Blue Polyamide Cable Glands (RAL 5012)*

Size	Thread Length	Cable Dia.	Pack	Part No.
M12	15mm	4-6.5	50	SIB/M12/BLUE EEXE
M16	15mm	5-10	50	SIB/M16/BLUE EEXE
M20	15mm	7-10	50	SIB/M20/BLUE EEXE
M25	15mm	12-18	20	SIB/M25/BLUE EEXE
M32	15mm	16-25	20	SIB/M32/BLUE EEXE
M40	16mm	22-32	20	SIB/M40/BLUE EEXE
M50	16mm	28-38.5	5	SIB/M50/BLUE EEXE
M63	16mm	40-48	5	SIB/M63/BLUE EEXE



*Breather Drains – ATEX certified – EExe 1/11 – IP66 c/w castellated locknut*

Size	Material	Part No.
M20	Brass	DPE1004S1
M25	Brass	DPE1005S1
M20	Stainless Steel	DPE3004S1
M25	Stainless Steel	DPE3005S1
M20	Glass filled nylon	DPE4004S3
M25	Glass filled nylon	DPE4005S3

Other thread form available: NPT, ISO pipe (BSP), PG, NPS & ET.



*Stainless Steel Glands (Spec: 1.4305)*

Size	for Cable DIA. mm	Part No.
M12	3–6.5	10069000
M16	5–10	10069001
M20	10–10	10069002
M25	13–18	10069003
M32	18–25	10069004



*Stainless Steel Lock Nuts*

Size	Part No.
M12	10064188
M16	10064189
M20	10064190
M25	10064191
M32	10064192



*Stainless Steel Glands (Spec: 1.4305)*

Size	for Cable DIA. mm	Part No.
M16	4-9.6mm	SIB/STNP/16SS
M20	7-13mm	SIB/STNP/20/SS
M25	8-16mm	SIB/STNP/25/SS
M32	11-21mm	SIB/STNP/32/SS
M40	15-27mm	SIB/STNP/40/SS



*Metric Cable Gland Gaskets (fibre)*

Dimensions mm		Part No.
Ins. Dia	Outs. Dia.	
8	12	8mm Oilit
16.5	24	16mm Oilit
20.3	25	20mm Oilit
25	31	25mm Oilit
32	40	32mm Oilit
40	51	40mm Oilit
50	62	50mm Oilit

Special sizes available on request.

*PG Cable Gland Gaskets (soft rubber)*

Gland	Pack	Part No.
ADR7	100	10061419
ADR9	100	10061420
ADR11	100	10061421
ADR13.5	100	10061422
ADR16	100	10061423
ADR21	100	10061424
ADR29	100	10061425



*Nylon (Entry Thread) Sealing Washer*

Size mm	Part No.
16	25111001
20	25111003
25	25111005
32	25111006
40	25111007
50	25111009
63	25111011
75	25111013



*EEx'e' Brass Hexagon head plugs*

Size	Part No.
M20	M20 HHP
M25	M25 HHP
M32	M32 HHP
M40	M40 HHP
M50	M50 HHP

*EEx'd' Brass Plugs*

Size	Part No.
M20	M20
M25	M25
M32	M32
M40	M40
M50	M50

*EEx'e' Nylon Plugs PG and Metric*

Size	Part No.
M20	M20 GFNP
M25	M25 GFNP
M32	M32 GFNP
M40	M40 GFNP
M50	M50 GFNP
M63	M63 GFNP
PG9	PG9 GFNP
PG11	PG11 GFNP
PG13.5	PG13.5 GFNP
PG16	PG16 GFNP
PG21	PG21 GFNP
PG29	PG29 GFNP



**Wiska HatGLAND**  
Ideal for: the food industry, medical and clean-room technologies, biotechnology, the chemical industry

- Available in stainless steel with locknut
- Nominal sizes for long slots 12 to 63 mm
- For wall thicknesses up to 10 mm
- also available as EMC version



## Sprint – ATEX Cable Gland



## EEx'd Brass adaptors PG Thread to Metric

Male Thread	Female Thread	Part No.
PG9	M20	PG9 – M20
PG11	M20	PG11 – M20
PG11	M25	PG11 – M25
PG13.5	M20	PG13.5 – M20
PG13.5	M25	PG13.5 – M25
PG16	M20	PG16 – M20
PG16	M25	PG16 – M25
PG21	M20	PG21 – M20
PG21	M25	PG21 – M25
PG21	M32	PG21 – M32
PG29	M20	PG29 – M20
PG29	M25	PG29 – M25
PG29	M32	PG29 – M32
PG29	M40	PG29 – M40
PG36	M20	PG36 – M20
PG36	M25	PG36 – M25
PG36	M32	PG36 – M32
PG36	M40	PG36 – M40



## Ex'd Brass Adaptors Metric to Metric

Male Thread	Female Thread	Part No.
M20	M25	M20 – M25
M25	M20	M25 – M20
M25	M32	M25 – M32
M32	M20	M32 – M20
M32	M25	M32 – M25
M32	M40	M32 – M40
M40	M20	M40 – M20
M40	M25	M40 – M25
M40	M32	M40 – M32
M40	M50	M40 – M50

NPT to Metric  
Male – Female

Male Thread	Female Thread	Part No.
1/2"NPT	M20	1/2"NPT – M20
1/2"NPT	M25	1/2"NPT – M25
3/4"NPT	M20	3/4"NPT – M20
3/4"NPT	M25	3/4"NPT – M25
1"NPT	M20	1"NPT – M20
1"NPT	M25	1"NPT – M25
1"NPT	M32	1"NPT – M32
1"NPT	M40	1"NPT – M40

## Blanking Plugs &amp; Cable Accessories

Wiska Blanking Plugs  
Polystyrene IP56/IP68 c/w metric thread

Size	Part No.
EVS 12	10062490
EVS 16	10062491
EVS 20	10062492
EVS 25	10062493
EVS 32	10062494
EVS 40	10062495
EVS 50	10062496
EVS 63	10062497

Quixx Membrane Entries  
Polyamide/Thermoplastic elastomere – IP66

Size	Panel Hole	Type	Pack	Part No.
M16	16.5mm	EMS16	100	10062567
M20	20.5mm	EMS20	100	10062568
M25	25.5mm	EMS25	100	10062569
M32	32.5mm	EMS32	100	10062570

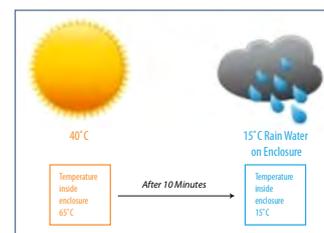


## Cable Gland Inserts &amp; Blank Plugs

Description	Type	Pack	Part No.
4 x 0 – 2mm hole	M12	25	10064392
2 x 2 – 4mm hole	M16	25	10064393
2 x 4 – 6mm hole	M20	25	10064395
3 x 2.5 – 4mm hole	M20	25	10064341
2 x 6 – 8mm hole	M25	25	10060952
3 x 5 – 7mm hole	M25	25	10064342
4 x 4 – 6mm hole	M25	25	10064343
4 x 5 – 7mm hole	M32	25	10064344
4 x 6 – 8mm hole	M32	25	10064950
6 x 5 – 6mm hole	M32	25	10064345
7 x 5 – 7mm hole	M40	25	10064348
7 x 6 – 8mm hole	M40	25	10064347
8 x 5 – 6mm hole	M40	25	10064346
9 x 6 – 8mm hole	M50	25	10064394



2mm diameter	BS2	50	10064000
3mm diameter	BS3	50	10064001
4mm diameter	BS4	50	10064002
5mm diameter	BS5	50	10064003
6mm diameter	BS6	50	10064004
7mm diameter	BS7	50	10064005
8mm diameter	BS8	50	10064006

VentGLAND®  
The Evolution of Membrane

## The problem: Water in enclosures despite high protection degrees.....

Rapidly changing temperature creates pressure difference that can draw humidity into the enclosure. Pressure, temperature and air humidity are in a constant state of change and have an effect on the casing. No matter how well sealed the casing is, this results in different pressure conditions between the interior of the casing and the surroundings causing transportation of air which then condenses within the casing.



## The solution: VentGLAND®

Despite its water impermeability, a membrane is able to allow for air exchange and consequently avoids the pressure difference between the inside of the casing and its surroundings. Thus, the reason for condensation is eliminated.

## Your benefits

VentGLAND is cable gland and pressure compensation in one

- Great cost savings
- No extra components, installation or drilling
- High protection degree of IP69K
- Easy replacement of a standard gland due to identical sizes
- Economical, high-quality, long-lasting and reliable

Please contact our Sales Office on **01 453 2522** for more details



## SWA Cable Gland selection chart

Schedule of cable glands: for XLPE 600/1000V cable to BS 5467 stranded copper conductors

Cable Conductor area	No of cores	Nominal diameters		Cable Gland Thread size	Indoor	Indoor outdoor (outer seal)	Outdoor (inner and outer seal)	Indoor/ outdoor (flameproof barrier)
		Under armour	Overall		BW	CW	E1W	Barr – W
mm		mm	mm	mm	420AA –	422AA –	421AA –	424TW –
1.5	2	7.8	12.5	20	52	71	71	52
	3	8.3	13.0	20	52	71	71	52
	4	9.1	14.0	20	52	52	52	52
	5	9.7	14.3	25/20s	55	52	52	52
	7	10.9	15.9	20	53	53	53	53
	12	14.4	20.2	25	55	55	55	55
	19	17.0	23.2	25	55	55	55	55
	27	20.9	27.9	32	55	55	55	55
	37	23.5	30.6	32	55	55	55	55
2.5	2	8.6	13.6	20	52	52	52	52
	3	9.2	14.1	20	52	52	52	52
	4	10.1	15.0	20	52	52	52	52
	5	11.7	16.3	25/20	55	53	53	53
	7	12.1	17.1	20	53	53	53	53
	12	16.2	22.4	25	55	55	55	55
	19	19.5	26.6	25/32	55	55	55	56
	27	23.5	30.7	32	56	56	56	56
	37	26.4	33.8	40	57	57	57	57
4	2	9.7	14.7	20	52	52	52	52
	3	10.3	15.3	20	52	52	52	52
	4	11.4	16.4	20	53	53	53	53
	5	13.0	17.8	25/20	55	53	53	53
6	2	10.8	15.9	20	53	53	52	53
	3	11.6	16.6	20	53	53	53	53
	4	12.8	18.7	20	53	53	53	53
	5	14.5	20.0	32/20	56	53	53	53
10	2	12.4	18.0	20	53	53	53	53
	3	13.2	19.5	20/25	53	53	53	55
	4	14.6	21.1	25	55	55	55	55
	5	17.20	22.9	32/25	56	55	55	55
16	2	15.1	20.6	25	55	55	55	55
	3	16.1	21.8	25	55	55	55	55
	4	17.9	23.6	25	55	55	55	55
	5	20.0	26.6	40/25	57	55	55	55
25	2	18.6	24.3	25	55	55	55	55
	3	20.3	26.9	32	56	56	56	56
	4	22.5	29.1	32	56	56	56	56
	5	24.7	31.5	40/32	57	56	56	56
35	2	21.3	27.9	32	56	56	56	56
	3	22.8	29.6	32	56	56	56	56
	4	25.3	32.1	32/40	56	56	56	57
	5	27.8	34.8	50/40	59	57	57	57
50	2	18.5	25.3	25/32	55	55	55	56
	3	21.6	28.4	32	56	56	56	56
	4	24.3	31.3	32	56	56	56	56
	5	32.4	40.4	50/50s	59	58	58	58
70	2	21.1	28.1	32	56	56	56	56
	3	25.0	32.0	32	56	56	56	56
	4	28.6	36.8	40	57	57	57	57
	5	37.9	46.3	63/50	61	59	59	59
95	2	23.9	31.9	32	56	56	56	56
	3	28.5	36.7	40	57	57	57	57
	4	32.2	40.6	50	59	59	58	59
120	2	26.9	35.1	40	57	57	57	57
	3	31.6	40.0	40/50	59	59	57	59
	4	36.2	45.8	50	59	59	58	59
150	2	29.8	38.2	40	57	57	57	57
	3	35.5	45.1	50	59	59	58	59
	4	40.1	49.9	50	59	59	59	59
185	2	33.5	43.3	50	59	59	58	59
	3	39.5	49.3	50	59	59	59	59
	4	44.7	54.9	63	61	61	60	61
240	2	38.3	48.3	50	59	59	59	59
	3	44.3	54.5	63	61	61	60	61
	4	50.6	61.0	63	61	61	61	61
300	2	42.4	52.5	50/63	59	59	59	61
	3	49.1	59.5	63	61	61	61	61
	4	55.7	66.5	75	62	63	62	63
400	2	47.4	58.0	63	61	61	60	61
	3	55.0	65.8	63/75	62	63	61	63
	4	62.7	75.4	75	63	63	63	64

**Important note:** The dimensions of cables vary with manufacturing tolerances. We advise the cable diameter is measured where possible before purchasing components. The recommendations here are given in good faith but Prysmian Cables and Systems cannot be held liable for mistakes in selection however caused.

## Prysmian Cable Glands Packs and Kits

**BW Gland Packs**

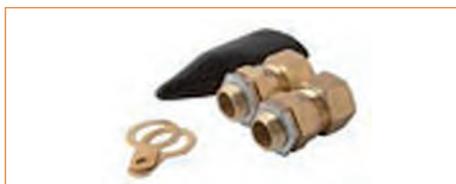
Size mm	Part No.
20s*	420AA52
20*	420AA53
25*	420AA55
32	420AA56
40	420AA57
50	420AA59
63	420AA61
75	420AA63

\*denotes two terminations per pack

**BW Gland Packs Economy Range**

Size mm	Part No.
20s*	BW 20s GP
20mm*	BW 20 GP
25mm*	BW 25 GP
32mm*	BW 32 GP
40mm	BW 40 GP
50mm	BW 50 GP
63mm	BW 63 GP
75mm	BW 75GP

\*denotes two terminations per pack

**Prysmian CW Gland Packs**

Size mm	Part No.
20ss*	422AA71
20s*	422AA52
20*	422AA53
25*	422AA55
32	422AA56
40	422AA57
50	422AA59
63	422AA61
75	422AA63

\*denotes two terminations per pack

**CW Gland Packs Economy Range**

Size mm	Part No.
20s*	CW 20s GP
20mm*	CW 20 GP
25mm*	CW 25 GP
32mm*	CW 32 GP
40mm	CW 40 GP
50mm	CW 50 GP
63mm	CW 63 GP
75mm	CW 75GP

\*denotes two terminations per pack

**Prysmian E1W Gland Packs**

Size mm	Part No.
20ss*	421AA71
20s*	421AA52
20*	421AA53
25*	421AA55
32	421AA56
40	421AA57
50s	421AA58
50	421AA59
63s	421AA60
63	421AA61
75s	421AA62
75	421AA63

\*denotes two terminations per pack

**E1W Gland Packs Economy Range**

Size mm	Part No.
20s*	E1W 20s GP
20mm*	E1W 20 GP
25mm*	E1W 25 GP
32mm*	E1W 32 GP
40mm	E1W 40 GP
50mm	E1W 50 GP
63mm	E1W 63 GP
75mm	E1W 75GP

\*denotes two terminations per pack

**Prysmian E1WF Gland Packs**

Complies with group II C hazardous atmospheres. Zone 1 and Zone 2 applications. EEx'd' and EEx'e' approved. BASEEFA approval number EEx'd' II C BAS Ex87B1447U.

Size mm	Part No.
20ss*	KCA47271
20s*	KCA47252
20*	KCA47253
25*	KCA47255
32	KCA47256
40	KCA47257
50s	KCA47258
50	KCA47259
63s	KCA47260
63	KCA47261
75s	KCA47262
75	KCA47263

\*denotes two terminations per pack

**Prysmian A2EX Gland Packs – Non armoured compression gland**

Complies with II B hazardous area atmospheres. Zone 1 and Zone 2 applications. EEx'd' or EEx'e' approved. BASEEFA approval number EEx'd' II B BAS Ex86 B1264U.

Size mm	Part No.
20ss*	KM49471
20s*	KM49452
20*	KM49453
25*	KM49455
32	KM49456
40	KM49457
50	KM49459
63	KM49461
75s	KM49462
75	KM49463

\*denotes two terminations per pack

**Prysmian A1/A2 Gland Kit – Non armoured compression gland**

includes Gland, PVC Shroud and Brass Locknut

Size mm	Part No.
20ss*	KM40971
20s*	KM40952
20*	KM40953
25*	KM40955
32	KM40956
40	KM40957
50	KM40959
63	KM40961
75	KM40963

\*denotes two terminations per pack

**A1/A2 Gland Packs Economy Range**

Size mm	Part No.
20s*	A1/A2 20s GP
20mm*	A1/A2 20 GP
25mm*	A1/A2 25 GP
32mm*	A1/A2 32 GP
40mm	A1/A2 40 GP
50mm	A1/A2 50 GP
63mm	A1/A2 63 GP
75mm	A1/A2 75GP

\*denotes 2 terminations per pack

## Prysmian Cable Glands



## PVC shrouds

## BW type

Size mm	Part No.
16	401PV01
20s	401PV02
20	401PV03
25	401PV05
32	401PV06
40	401PV07
50	401PV09
63	401PV11
75	401PV13

## CW/E1W type

Size mm	Part No.
16/20ss	401PV21
20s	401PV22
20	401PV23
25	401PV25
32	401PV26
40	401PV27
50s	401PV28
50	401PV29
63	401PV31
75	401PV33
85	401PV34



## PCP shrouds

Size mm	Part No.
16/20s	401AA02
20	401AA03
25	401AA05
32	401AA06
40	401AA07
50s/50	401AA09
63s/63	401AA11
75s/75	401AA13

## LSF zero halogen shrouds

Size mm	Part No.
20s	401LSF02
20	401LSF03
25	401LSF05
32	401LSF06
40	401LSF07
50	401LSF09
63	401LSF11
75	401LSF13



## Brass locknuts

Size mm	Part No.
16	429AA51
20	429AA53
25	429AA55
32	429AA56
40	429AA57
50	429AA59
63	429AA61
75	429AA63
85	429AA64

Size mm	Part No.
20mm	SIB/BLN20
25mm	SIB/BLN25
32mm	SIB/BLN32
40mm	SIB/BLN40
50mm	SIB/BLN50
63mm	SIB/BLN63
75mm	SIB/BLN75

## Steel locknuts

Size mm	Part No.
16	439AA51
20	439AA53
25	439AA55
32	439AA56
40	439AA57
50	439AA59
63	439AA61
75	439AA63



## Brass Earth Tags

Size mm	Part No.
16	428ET51
20	428ET53
25	428ET55
32	428ET56
40	428ET57
50	428ET59
63	428ET61
75	428ET63

Size mm	Part No.
20mm	ET 20
25mm	ET 25
32mm	ET 32
40mm	ET 40
50mm	ET 50
63mm	ET 63
75mm	ET 75



## LSF Conversion Kits for BW Gland Packs

Size mm	Part No.
20s *	LSFK/BW20s
20mm *	LSFK/BW20
25mm *	LSFK/BW25
32mm *	LSFK/BW32
40mm *	LSFK/BW40
50mm	LSFK/BW50
63mm	LSFK/BW63
75mm	LSFK/BW75

\* Denotes two LSF shrouds per pack.

## LSF Conversion Kits for CW Gland Packs

Size mm	Part No.
20s *	LSFK/CW20s
20mm *	LSFK/CW20
25mm *	LSFK/CW25
32mm *	LSFK/CW32
40mm *	LSFK/CW40
50mm	LSFK/CW50
63mm	LSFK/CW63
75mm	LSFK/CW75

## EMC Cable Glands

EMC Cable glands are designed to work together in electrical or electronic applications where a metallic cable shielding must be equipotential with a metallic enclosure in accordance with the EMC Directive.

Offering IP68 ingress Protection a 5 bar pressure, EMC Glands will maintain shielding from electromagnetic disturbance in underground applications.



Description	for Cable DIA. mm	Part No.
M12	3-6.5	20M3M1261N
M16	5.5-10	20M3M1661N
M20	8-13	20M3M2061N
M25	11-18	20M3M2561N
M32	15-21	20M3M3261N
M40	19-27	20M3M4061N
M50	26-35	20M3M5061N
M63	39-48	20M3M6361N

## Nickel Plated Brass Glands, Plugs, Locknuts and Thread Adaptors



## Metric Thread Glands

Size	Thread/ Panel Hole	Pack	Cable DIA. mm	Part No.
PG11	M20	50	6 – 11	020.2011.6
PG13.5	M20	50	7 – 13	020.2013.6
PG16	M20	50	7 – 15	020.2016.6
PG21	M25	50	10 – 20	020.2521.6
PG29	M32	50	18 – 26	020.3229.6
PG36	M40	50	25 – 33	020.4036.6

## Metric Thread Grip Glands

Size	Thread/ Panel Hole	Pack	Cable DIA. mm	Part No.
PG11	M20	50	6 – 11	070.2011.6
PG13.5	M20	50	7 – 13	070.2013.6
PG16	M20	50	7 – 15	070.2016.6
PG21	M25	25	10 – 20	070.2521.6
PG29	M32	20	18 – 26	070.3229.6
PG36	M40	10	25 – 33	070.4036.6



## Brass Glands PG Thread to DIN 40430

Size	Panel hole	Pack	Cable DIA.	Part No.
PG7	12.5	100	4 – 7	020.0700.0
PG9	15.2	100	5 – 8	120.0900.6
PG11	18.6	50	6 – 11	020.1100.6
PG13.5	20.4	50	7 – 13	020.1300.6
PG16	22.5	50	7 – 15	020.1600.6
PG21	28.3	50	10 – 20	020.2100.6
PG29	37	50	18 – 26	020.2900.6
PG36	47	20	25 – 33	120.3600.6
PG42	54	5	29 – 40	120.4200.6
PG48	59.3	5	38 – 44	120.4800.6

## Metal Plugs PG and Metric Thread

Size	Pack	Part No.
PG7	100	750.0700.0
PG9	100	750.0900.0
PG11	100	750.1100.0
PG13.5	100	750.1300.0
PG16	100	750.1600.0
PG21	100	750.2100.0
PG29	100	750.2900.0
20mm	100	755.2000.0
25mm	100	755.2500.0
32mm	50	755.3200.0
40mm	50	755.4000.0



## PG Thread Locknuts (Brass)

Size	Pack	Part No.
PG7	100	780.0700.0
PG9	100	780.0900.0
PG11	100	780.1100.0
PG13.5	100	780.1300.0
PG16	100	780.1600.0
PG21	100	780.2100.0
PG29	100	780.2900.0
PG36	100	780.3600.0
PG42	100	780.4200.0
PG48	50	780.4800.0

## Metric Thread Locknuts

Size	Pack	Part No.
16mm	100	785.1600.0
20mm	100	785.2000.0
25mm	100	785.2500.0
32mm	50	785.3200.0
40mm	50	785.4000.0
50mm	25	785.5000.0
63mm	25	785.6300.0



## Nickel Plated Brass Adaptors (PG Thread to Metric Thread and Metric to Metric)

Male Thread	Female Thread	Pack	Part No.
PG16	M20	100	705.1620.0
PG21	M20	100	705.2120.0
PG21	M25	100	705.2125.0
PG29	M25	50	705.2925.0
M20	M16	100	701.2016.0
M25	M20	100	701.2520.0
M32	M25	50	701.3225.0
M40	M32	100	701.4032.0
M50	M32	10	701.5032.0
M50	M40	10	701.5040.0
M63	M40	10	701.6340.0
M63	M50	10	701.6350.0
M12	M16	100	731.1216.0
M16	M20	100	731.1620.0
M20	M25	50	731.2025.0

Prices may change subject to Brass Surcharges.



## Nickel Plated Brass Thread Adaptors

Male Thread	Female Thread	Pack	Part No.
PG13.5	PG11	100	700.1311.0
PG16	PG13.5	100	700.1613.0
PG21	PG16	100	700.2116.0
PG29	PG21	100	700.2921.0
PG36	PG29	100	700.3629.0

## Wiska Polyamide Reducers (Grey)

Part No.	Description
10063577	KRM16/12 M16-M12 Thread Length 9mm
10063579	KRM20/16 M20-M16 Thread Length 9mm
10063581	KRM25/16 M25-M16 Thread Length 10mm
10063582	KRM25/20 M25-M20 Thread Length 10mm
10063584	KRM32/20 M25-M20 Thread Length 12mm
10063585	KRM32/25 M32-M25 Thread Length 12mm
10063588	KRM40/32 M40-M32 Thread Length 12mm
10063591	KRM50/40 M50-M40 Thread Length 14mm
10063594	KRM63/50 M63-M50 Thread Length 15mm

Also available in PG to PG, PG to Metric and

Metric to PG Threads



## Nickel Plated Brass Enlargers

Part No.	Description
731.1616.0	M12-M16 Thread Length 5mm
731.1620.0	M16-M20 Thread Length 5mm
731.2025.0	M20-M25 Thread Length 6mm
731.2532.0	M25-M32 Thread Length 7mm
731.2540.0	M25-M40 Thread Length 7mm
731.3240.0	M32-M40 Thread Length 8mm
731.3250.0	M32-M50 Thread Length 8mm
731.4050.0	M40-M50 Thread Length 8mm
731.5063.0	M50-M63 Thread Length 9mm

Also available in other Thread types

### Gland types available from the Prysmian range:

Glands for braided cable, both non hazardous and hazardous.

Explosion proof barrier glands up to IP68 (submersible).

Aluminium cable glands.

Integral earth glands.

Glands for OCMA type cables (lead sheathed).

For further details please contact our sales office on

**01 453 2522**



## Knowledge. Technology. Performance.

The Geissel Group is one of the leading international manufacturers of cable glands, accessories and precision turned parts.

Our family company founded in 1920 stands for quality, tradition and innovation with 150 employees worldwide.

With the most modern manufacturing equipment, we produce a comprehensive range of standard products as well as highly complex customer solutions.

Our high quality standards are continually monitored and verified by internal and external audits.

Professionalism connects. Geissel products are used in very different fields. They all combine absolute professionalism and the highest precision.

As such, cable glands, accessories and precision turned parts from the Geissel Group are the perfect components to fulfil common quality demands.

Geissel's own brand **wege®** in the cable gland field is based on decades of development and experience and is internationally recognised and established in the field.

We combine knowledge, technology and experience to create products which meet the highest demands.

## wege® - Cable Glands

### Thread

- PG, metric, BSP, BSC, NPT

### Material

- Brass, Polyamide, Stainless Steel 1.4305 – AISI 303, Stainless Steel 1.4571 – AISI 316Ti

### Cable-Ø

- up to 116 mm

### Protection class

- IP 54, IP 68, EMC

## Our full program:

- Single Compression Cable Glands
- Double Compression Cable Glands
- Conduit Cable Glands and Conduits
- Reductions/Enlargements
- Pressing screws
- Adapters
- Lock Nuts
- Plugs
- Twisting Sleeves



## Weidmüller Insulated Ferrules



Part No.	Description	Pin Length	Colour	Pack
0690700000	0.5sq Ferrule	8mm	Orange	500
9019010000	0.5sq Ferrule	8mm	Grey	500
0462900000	0.75sq Ferrule	8mm	White	500
9021040000	0.75sq Ferrule	8mm	Blue	500
0463000000	1.0sq Ferrule	8mm	Yellow	500
9018560000	1.0sq Ferrule	8mm	Red	500
0463100000	1.5sq Ferrule	8mm	Red	500
9019120000	1.5sq Ferrule	8mm	Black	500
0565600000	1.5sq Ferrule	18mm	Red	250
9019160000	2.5sq Ferrule	8mm	Blue	250
9021070000	2.5sq Ferrule	8mm	Grey	250
9019170000	2.5sq Ferrule	12mm	Blue	250
9019180000	2.5sq Ferrule	18mm	Blue	200
9019190000	4.0sq Ferrule	10mm	Grey	200
9021100000	4.0sq Ferrule	10mm	Orange	200
9019210000	4.0sq Ferrule	18mm	Grey	100
0533500000	6.0sq Ferrule	12mm	Black	100
9021130000	6.0sq Ferrule	12mm	Green	100
0534200000	10.0sq Ferrule	12mm	Ivory	50
9021150000	10.0sq Ferrule	12mm	Brown	50
0565900000	16sq Ferrule	12mm	Green	50
9021170000	16sq Ferrule	12mm	White	50
0566000000	16sq Ferrule	18mm	Green	50
0317000000	25sq Ferrule	16mm	Brown	100
9021190000	25sq Ferrule	16mm	Black	100
0317100000	25sq Ferrule	22mm	Brown	100
0317200000	35sq Ferrule	16mm	Beige	100
0317300000	35sq Ferrule	22mm	Beige	100
0444200000	50sq Ferrule	37mm	Olive	50
9028200000	70sq Ferrule	40mm	Yellow	25
9028210000	95sq Ferrule	44mm	Red	25

## Uninsulated Ferrules



Part No.	Description	Pin Length	Pack
0282700000	0.75sq Ferrule	6	1000
0282800000	1.0sq Ferrule	10	1000
0186500000	1.5sq Ferrule	10	1000
0186100000	2.5sq Ferrule	12	1000
0244100000	4sq Ferrule	12	1000
0124700000	6sq Ferrule	15	250
0124800000	10sq Ferrule	15	250
0379300000	10sq Ferrule	18	250
0124300000	16sq Ferrule	15	250
0375200000	16sq Ferrule	18	250
0375300000	25sq Ferrule	18	250
0368900000	35sq Ferrule	18	100
9025880000	50sq Ferrule	22	100
9004230000	70sq Ferrule	25	50
9004250000	95sq Ferrule	25	50
9036240000	120sq Ferrule	30	25
9036250000	150sq Ferrule	32mm	25
9036260000	185sq Ferrule	32mm	25

## Weidmüller Insulated Ferrules for Stripax Plus



Part No.	Type/Cable size	Colour	Pack
9004270000	H0.5/14 Plus	Orange	500
9004290000	H0.75/14 Plus	White	500
9004320000	H1.0/14 Plus	Yellow	500
9004340000	H1.5/14 Plus	Red	500
9004360000	H2.5/14 Plus	Blue	500



## Twin Cable Ferrules Insulated

Part No.	Description	Pin Length	Colour	Pack
9037230000	0.75sq Twin	8	White	200
9037260000	1.0sq Twin	8	Yellow	200
9037290000	1.5sq Twin	8	Red	200
9037300000	1.5sq Twin	12	Red	200
9037500000	2.5sq Twin	10	Blue	100
9037530000	4.0sq Twin	12	Grey	100
9037320000	6.0sq Twin	14	Black	50
9037340000	10.0sq Twin	14	Ivory	100
9037360000	16.0sq Twin	14	Green	50

Other sizes available on request.

Please refer to section 10 for a full range of available crimping tools.

For our Crimping Selection Table please refer to Section 1 pages 16 & 17.

## Weidmüller Pre-Insulated Terminals Completely Insulated



## Push On

Part No.	Length	Colour	Pack
<b>Red 0.5 – 1.5</b>			
RF50/FI/VR	4.8mm	Red	100
9200640000	6.3mm	Red	100
<b>Blue 1.5 – 2.5</b>			
BF66/FI/VR	4.8mm	Blue	100
9200650000	6.3mm	Blue	100
<b>Yellow 4 – 6</b>			
9200660000	6.3mm	Yellow	100

Please refer to section 10 for a full range of available crimping tools.

## Weidmüller Pre-Insulated Terminals

**Ring****Red 0.5 – 1.5**

Part No.	Size	Colour	Pack
9200070000	3.2mm	Red	100
9200080000	3.7mm	Red	100
9200090000	4.3mm	Red	100
9200100000	5.3mm	Red	100
9200110000	6.5mm	Red	100
9200120000	8.5mm	Red	100
RR105	10.0mm	Red	100

**Blue 1.5 – 2.5**

9200150000	3.2mm	Blue	100
9200160000	3.7mm	Blue	100
9200170000	4.3mm	Blue	100
9200180000	5.3mm	Blue	100
9200190000	6.5mm	Blue	100
9200200000	8.5mm	Blue	100
9200210000	10.0mm	Blue	100
BR120 1	2.0mm	Blue	100

**Yellow 4 – 6**

9200230000	4.3mm	Yellow	100
9200240000	5.3mm	Yellow	100
9200250000	6.5mm	Yellow	100
9200260000	8.5mm	Yellow	100
9200270000	10.0mm	Yellow	100
YR120	12.0mm	Yellow	100

**Fork****Red 0.5 – 1.5**

Part No.	Size	Colour	Pack
9200290000	3.2mm	Red	100
9200300000	3.7mm	Red	100
9200310000	4.3mm	Red	100
9200320000	5.3mm	Red	100
9200330000	6.5mm	Red	100

**Blue 1.5 – 2.5**

9200360000	3.7mm	Blue	100
9200370000	4.3mm	Blue	100
9200380000	5.3mm	Blue	100
9200390000	6.5mm	Blue	100

**Yellow 4 – 6**

9200410000	4.3mm	Yellow	100
9200420000	5.3mm	Yellow	100
9200430000	6.5mm	Yellow	100

**Pin**

Part No.	Size	Colour	Pack
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**Red 0.5 – 1.5**

9200460000	12.0mm	Red	100
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**Blue 1.5 – 2.5**

9200470000	12.0mm	Blue	100
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**Yellow 4 – 6**

9200480000	14.0mm	Yellow	100
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**Blade**

Part No.	Size	Colour	Pack
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**Red 0.5 – 1.5**

RB11	11.0mm	Red	100
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RB18	18.0mm	Red	100
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**Blue 1.5 – 2.5**

BB9	9.0mm	Blue	100
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BB18	18.0mm	Blue	100
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**Yellow 4 – 6**

YB18	18.0mm	Yellow	100
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**Male Push On**

Part No.	Size	Colour	Pack
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**Red 0.5 – 1.5**

9200580000	6.3mm	Red	100
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**Blue 1.5 – 2.5**

9200590000	6.3mm	Blue	100
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**Yellow 4 – 6**

9200600000	6.3mm	Yellow	100
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**Butt Splice**

Part No.	Colour	Pack
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**Red 0.5 – 1.5**

9200490000	Red	100
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**Blue 1.5 – 2.5**

9200500000	Blue	100
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**Yellow 4 – 6**

9200510000	Yellow	100
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**Female Push On**

Part No.	Size	Colour	Pack
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**Red 0.5 – 1.5**

9200520000	2.8mm	Red	100
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9200530000	4.8mm	Red	100
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9200540000	6.3mm	Red	100
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**Blue 1.5 – 2.5**

9200550000	4.8mm	Blue	100
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9200560000	6.3mm	Blue	100
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**Yellow 4 – 6**

9200570000	6.3mm	Yellow	100
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YF100/08/VR	10mm	Yellow	100
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**Male Bullets**

Part No.	Size	Colour	Pack
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**Red 0.5 – 1.5**

9200670000	5.0mm	Red	100
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**Blue 1.5 – 2.5**

9200680000	5.0mm	Blue	100
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**Female Connectors**

Part No.	Size	Colour	Pack
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**Red 0.5 – 1.5**

9200700000	5.0mm	Red	100
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**Blue 1.5 – 2.5**

9200710000	5.0mm	Blue	100
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**Piggy Backs**

Part No.	Size	Colour	Pack
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**Red 0.5 – 1.5**

9200610000	6.3mm	Red	100
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**Blue 1.5 – 2.5**

9200620000	6.3mm	Blue	100
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**Yellow 4 – 6**

9200630000	6.3mm	Yellow	100
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Copper Cable Lugs



Part No.	Stud Hole Sizes
HDT 1.5	4, 5, 6
HDT 1.5	8
HDT 2.5	4, 5, 6
HDT 2.5	8
HDT 2.5	10
HDT 4	4, 5, 6, 8
HDT 4	10
HDT 6	4, 5, 6, 8
HDT 6	10
HDT 10	5, 6
HDT 10	8
HDT 10	10, 12
HDT 16	5, 6
HDT 16	8
HDT 16	10, 12
HDT 25	5, 6, 8
HDT 25	10, 12
HDT 35	5, 6, 8
HDT 35	10, 12
HDT 50	5, 6, 8
HDT 50	10, 12
HDT 70	5, 6, 8
HDT 70	10, 12
HDT 70	14, 16
HDT 95	8, 10, 12
HDT 95	14, 16
HDT 120	8, 10, 12, 14, 16, 20
HDT 150	8, 10, 12, 14, 16, 20
HDT 185	8, 10, 12, 14, 16, 20
HDT 240	8, 10, 12, 14, 16, 20
HDT 300	10, 12, 14, 16, 20
HDT 400	10, 12, 14, 16, 20
HDT 500	8, 10, 12, 14
HDT 500	16, 18, 20
HDT 630	10, 12, 14, 16
HDT 630	20, 22

Copper Cable Splices



Part No.	Stud Hole Sizes
HDT 4S	4
HDT 6S	6
HDT 10S	10
HDT 16S	16
HDT 25S	25
HDT 35S	35
HDT 50S	50
HDT 70S	70
HDT 95S	95
HDT 120S	120
HDT 150S	150
HDT 185S	185
HDT 240S	240
HDT 300S	300
HDT 400S	400
HDT 500S	500
HDT 630S	630
HDT 800S	800
HDT 1000S	1000

Copper Ceetap Earth Connectors

See selector chart for sizing details.  
See tooling section for die set part numbers.

Part No.	Part No.	Part No.
TC2C	TC7C	TC11C
TC3C	TC8C	TC12C
TC4C	TC9C	TC13C
TC5C	TC10C	TC14C
TC6C		



LML Medium Duty Cable Lugs



Part No.	Stud Hole Size
NT 6-6	6
NT 6-8	8
NT 10-6	6
NT 10-8	8
NT 16-6	6
NT 16-8	8
NT 16-10	10
NT 25-6	6
NT 25-8	8
NT 25-10	10
NT 25-12	12
NT 35-6	6
NT 35-8	8
NT 35-10	10
NT 35-12	12
NT 50-6	6
NT 50-8	8
NT 50-10	10
NT 50-12	12
NT 70-6	6
NT 70-8	8
NT 70-10	10
NT 70-12	12
NT 95-8	8
NT 95-10	10
NT 95-12	12
NT 120-8	8
NT 120-10	10
NT 120-12	12
NT 150-8	8
NT 150-10	10
NT 150-12	12
NT 185-10	10
NT 185-12	12

Selection Chart for BICC Ceetap Connectors

Tap mm2	Main Conductor		Conductor							
	6	10	16	25	35	50	70	95	120	150
2.5	TC2C	TC3C								
4	TC2C	TC3C	TC4C	TC5C						
6	TC2C	TC2C	TC3C	TC4C	TC6C					
10		TC3C	TC4C	TC6C						
16		TC4C	TC5C	TC6C	TC8C	TC9C				
25		TC6C	TC6C	TC8C	TC10C	TC10C				
35			TC7C	TC9C	TC10C	TC10C	TC13C	TC14C		
50			TC9C	TC11C	TC11C	TC13C	TC14C			
70				TC11C	TC11C	TC13C	TC14C			
95				TC12C	TC14C	TC14C				
120					TC14C	TC14C				
150						TC14C				

### Cembre "Narrow Palm" Copper Cable Lugs



Part No.	Size	Stud Hole Size	Palm Width
A 2-M 5/9	10sq.	5	9
A 3-M 5/9	16sq.	5	9
A 5-M 5/9	25sq.	5	9

Part No.	Size	Stud Hole Size	Palm Width
A 7 B-M 6/11.5	35sq.	6	11.5
A 10 B-M 6/11.5	50sq.	6	11.5
A 14 B-M 6/11.5	70sq.	6	11.5
A 19 B-M 8/15.5	95sq.	8	15.5
A 24 B-M 8/19	120sq.	8	19
A 24 B-M 10/19	120sq.	10	19
A 30 B-M 8/19	150sq.	8	19
A 30 B-M 10/19	150sq.	10	19
A 37 B-M 10/24.5	185sq.	10	24.5

Part No.	Size	Stud Hole Size	Palm Width
A 48-M 10/31	240sq.	10	31
A 48-M 12/31	240sq.	12	31
A 48-M 16/31	240sq.	16	31
A 60 B-M 10/31	300sq.	10	31
A 60 B-M 12/31	300sq.	12	31

### Prysmian – Low Voltage Cable Jointing Kits and Accessories

Features: Selection information for Low Voltage Straight and Branch Joints on 600/1000 Volt polymeric insulated, aluminium or copper conductors, SWA Cables to BS 6346, BS 5467 and IEC 502. All joints comply with Performance Standards Engineering Recommendations C8 and BS 7888.

#### Resin Straight Joint c/w Armour Bond

Part No.	Part No.
MPJEMJ1	MPJEMJ5
MPJEMJ2	MPJEMJ6
MPJEMJ3	MPJEMJ7
MPJEMJ4	MPJEMJ8



#### Resin Straight Joint without Armour Bond

Part No.
MPJEMJ – U1
MPJEMJ – U2



#### Two-Part Polyurethane (Low Density) Resin

Reference No.	Pack size
UR2202B	10 x 0.2 Litre

#### Non Hardening Putty

Reference No.
R391



### Selection Chart for Prysmian Cable Resin Joints

Conductor	2 Core		3 Core		4 Core	
	Straight Joints	Branch Joints	Straight Joints	Branch Joints	Straight Joints	Branch Joints
1.5 sq.	MPJEMJ 1	MBR6	MPJEMJ 1	MBR6	MPJEMJ 1	MBR6
2.5 sq.	MPJEMJ 1	MBR6	MPJEMJ 1	MBR6	MPJEMJ 1	MBR6
4 sq.	MPJEMJ 1	MBR6	MPJEMJ 1	MBR6	MPJEMJ 1	MBR6
6 sq.	MPJEMJ 1	MBR6	MPJEMJ 2	MBR6	MPJEMJ 2	MBR6
10 sq.	MPJEMJ 2	MBR6	MPJEMJ 2	MBR16	MPJEMJ 2	MBR16
16 sq.	MPJEMJ 2	MBR16	MPJEMJ 3	MBR16	MPJEMJ 3	MBR16
25 sq.	MPJEMJ 3	MBR16	MPJEMJ 3	MBR16	MPJEMJ 3	MBR35
35 sq.	MPJEMJ 3	MBR35	MPJEMJ 4	MBR35	MPJEMJ 4	MBR35
50 sq.	MPJEMJ 4	MBR95	MPJEMJ 4	MBR95	MPJEMJ 4	MBR95
70 sq.	MPJEMJ 4	MBR95	MPJEMJ 4	MBR95	MPJEMJ 5	MBR95
95 sq.	MPJEMJ 4	MBR95	MPJEMJ 5	MBR95	MPJEMJ 5	MBR95
120 sq.	MPJEMJ 5	MBR185	MPJEMJ 6	MBR185	MPJEMJ 6	MBR185
150 sq.	MPJEMJ 5	MBR185	MPJEMJ 6	MBR185	MPJEMJ 6	MBR185
185 sq.	MPJEMJ 5	MBR185	MPJEMJ 6	MBR185	MPJEMJ 6	MBR185
240 sq.	MPJEMJ 6	MBR300	MPJEMJ 7	MBR300	MPJEMJ 7	MBR300
300 sq.	MPJEMJ 6	MBR300	MPJEMJ 7	MBR300	MPJEMJ 7	MBR300
400 sq.	MPJEMJ 8	MPJEMJ 8	MPJEMJ 8			



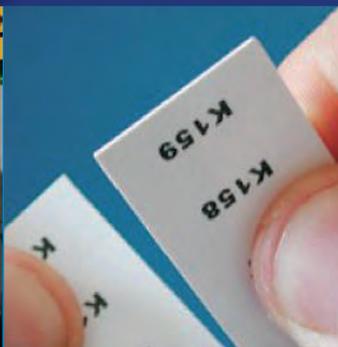
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## Introducing the **MARKINGENIUS 3**

Available exclusively through AP Haslam, this high-resolution plug&play **thermal transfer printer** by Cembre produces high quality print on markers, legends and labels for identification of conductors and electrical components.

### The benefits of the **MARKINGENIUS 3**

- ▲ Time and cost effective production process.
- ▲ No warm up and easy loading with no fumes or residue.
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- ▲ Delivered complete with cables and software.



# APHASLAM

Industrial Electrical Equipment Specialists



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Email: [sales@aphaslamm.ie](mailto:sales@aphaslamm.ie)

## Plastim Slotted Cable Ducts



### Main Technical Features

- Made of: technopolymer on rigid PVC base, self-extinguishing (UL94) V0
- Narrow slots 4/6/4mm
- Perforated bottom according to the standard DIN 43659
- Standard bars length: 2m
- Reference Standards: EN 5085-2-3
- Packed in strong cardboard boxes suitable for transport and storage
- Standard colour RAL7030, other colours on request

Code	External Dimensions	Colour	Pack/2 mtr. Length
PDK 2540	25x40	RAL 7030 Grey	50x2 m
PDK 2560	25x60	RAL 7030 Grey	35x2 m
PDK 4040	40x40	RAL 7030 Grey	35x2 m
PDK 4060	40x60	RAL 7030 Grey	28x2 m
PDK 4080	40x80	RAL 7030 Grey	20x2 m
PDK 6040	60x40	RAL 7030 Grey	25x2 m
PDK 6060	60x60	RAL 7030 Grey	16x2 m
PDK 6080	60x80	RAL 7030 Grey	16x2 m
PDK 8060	80x60	RAL 7030 Grey	14x2 m
PDK 8080	80x80	RAL 7030 Grey	12x2 m
PDK 10060	100x60	RAL 7030 Grey	10x2 m
PDK 10080	100x80	RAL 7030 Grey	10x2 m
PDK 12060	120x60	RAL 7030 Grey	10x2 m
PDK 12080	120x80	RAL 7030 Grey	8x2 m

## IBOCO PVC Trunking



### Canalplast Slotted Panel Trunking c/w Lid Grey Wide Slot

Part No. (W x H mm)	Pack/2 mtr. Length
25 x 30	40
25 x 40	30
25 x 60	20
25 x 80	16
25 x 100	12
40 x 30	24
40 x 40	20
40 x 60	18
40 x 80	12
40 x 100	8
60 x 30	16
60 x 40	12
60 x 60	12
60 x 80	12
60 x 100	8
80 x 40	12
80 x 60	12
80 x 80	12
80 x 100	12
100 x 40	8
100 x 60	20
100 x 80	8
100 x 100	8
100 x 150	4
120 x 40	10
120 x 60	8
120 x 80	8
120 x 100	4
150 x 60	6
150 x 80	6
150 x 100	4
200 x 60	4
200 x 80	4
200 x 100	4



### Narrow Slot

Part No. (W x H mm)	Pack/2 mtr. Length
15 x 17 E/4	60
15 x 30 E/4	48
15 x 40 E/4	36
25 x 30 E/4	40
25 x 40 E/4	30
25 x 60 E/4	20
25 x 80 E/4	16
25 x 100 E/4	12
40 x 40 E/4	20
40 x 60 E/4	18
40 x 80 E/4	12
40 x 100 E/4	8
60 x 40 E/4	12
60 x 60 E/4	12
60 x 80 E/4	12
60 x 100 E/4	8
80 x 40 E/4	12
80 x 60 E/4	12
80 x 80 E/4	12
80 x 100 E/4	12
100 x 60 E/4	20
100 x 80 E/4	8
100 x 100 E/4	8
120 x 60 E/4	8
120 x 80 E/4	8

## SES Slotted Cable Trunking

### SES Slotted Cable Trunking c/w Lid – blue

For intrinsically safe applications (083 BU).

Part No. (H x W mm)	Pack/2 mtr. Length
GFA6/4 23x30Blue	48Mtr
GFA6/4 42 x43Blue	24Mtr
GFA6/4 60x30Blue	24Mtr
GFA6/4 60x43Blue	24Mtr
GFA6/4 60x60Blue	24Mtr
GFA6/4 80x30Blue	24Mtr
GFA6/4 80x40Blue	24Mtr
GFA6/4 80x60Blue	24Mtr
GFA6/4 80x80Blue	24Mtr
GFA6/4 100x60Blue	24Mtr
GFA6/4 100x100Blue	12Mtr

Other colours available on request

This trunking is priced per one metre

### SES Slotted Cable Trunking c/w Lid – black

Part No. (H x W mm)	Pack/2 mtr. Length
GFDIN–A7/5 25x25	48Mtr
GFDIN–A7/5 37.5x25	48Mtr
GFDIN–A7/5 37x37	24Mtr
GFDIN–A7/5 37x50	24Mtr
GFDIN–A7/5 50x100	12Mtr
GFDIN–A7/5 50x125	12Mtr
GFDIN–A7/5 50x25	48Mtr
GFDIN–A7/5 50x37	24Mtr
GFDIN–A7/5 50x50	24Mtr
GFDIN–A7/5 50x75	24Mtr

This trunking is priced per one metre



## Grommets, Harness Wrap and PVC Insulation Tape

**Grommets**

Part No.	Description
PV522	15.9mm blind PVC
PV510m	20mm blind PVC
PV516A	25mm blind PVC
PV518	32mm blind PVC
PV520	50.8mm blind PVC
PV3010	10mm open PVC
PV73m	20mm open PVC
PV77 TPR	25mm open PVC
PV79	32mm open PVC
RB85	50.8mm open rubber
PV86	50.8mm open PVC

Other sizes available on request.

**Cable Marker Dispenser (self adhesive markers)**

Part No.	Description
Marker Dispenser	Dispenser c/w 10 rolls 0 – 9 incl

**Self – Amalgamating Tape**

Part No.	Description
Self Amalgamating	10m x 25mm roll

**Flip–cable grommet**

Part No.	Nominal size	Sealing range mm	Type
10062770	M 12/PG 7	4 – 7	FD 13
10062771	M 16/PG 9	5 – 10	FD 17
10062772	M 20/PG 13,5	8 – 13	FD 21
10062773	M 25	11 – 17	FD 26
10062774	M 32	15 – 21	FD 33
10062775	M 40	19 – 28	FD 41
10062776	M 50	12 – 35	FD 51

**PVC Insulation Tape (Flame retardant to BS3924)**

Colours available: Black, Red, Yellow, Blue, Green, White, Grey, Brown and Green/Yellow (Earth).

Part No.	Description
PVC Black Tape	20m x 19mm roll
PVC Blue Tape	20m x 19mm roll
PVC Brown Tape	20m x 19mm roll
PVC Green Tape	20m x 19mm roll
PVC Green/Yellow	20m x 19mm roll
PVC Grey Tape	20m x 19mm roll
PVC Red Tape	20m x 19mm roll
PVC White Tape	20m x 19mm roll
PVC Yellow Tape	20m x 19mm roll

33m x 19mm roll (available on request).

**Braided Sleeving**

Part No.	Pack	To Suit Bundle DIA. approx
PET 6 Grey	25 mts	6-12mm
PET 8 Grey	25 mts	8-16mm
PET 10 Grey	25 mts	10-20mm
PET 12 Grey	25 mts	12-24mm
PET 15 Grey	25 mts	15-27mm
PET 20 Grey	25 mts	19-32mm
PET 25 Grey	25 mts	24-38mm
PET 30 Grey	25 mts	28-47mm
PET 40 Grey	25 mts	40-63mm
PET 50 Grey	25 mts	45-75mm
PET 60 Grey	25 mts	48-92mm

\* All sizes also available in black

**Spiral Wrap**

Part No.	Pack	To Suit Bundle DIA. approx
Pliospire PE6 Nat	25 mts	5-20mm
Pliospire PE12 Nat	25 mts	10-40mm
Pliospire PE17 Nat	25 mts	20-60mm

## Cable Core Markers



Part No.	Cable Diam.	Description	Pack
PT-V Plus 45 -- 2.2 – 5.0	Z-Type	500	
PT-V Plus 45 -+ 2.2 – 5.0	Z-Type	500	
PT-V Plus 45 -0. 2.2 – 5.0	Z-Type	500	
PT-V Plus 45 -1. 2.2 – 5.0	Z-Type	500	
PT-V Plus 45 -2. 2.2 – 5.0	Z-Type	500	
PT-V Plus 45 -3. 2.2 – 5.0	Z-Type	500	
PT-V Plus 45 -4. 2.2 – 5.0	Z-Type	500	
PT-V Plus 45 -5. 2.2 – 5.0	Z-Type	500	
PT-V Plus 45 -6. 2.2 – 5.0	Z-Type	500	
PT-V Plus 45 -7. 2.2 – 5.0	Z-Type	500	
PT-V Plus 45 -8. 2.2 – 5.0	Z-Type	500	
PT-V Plus 45 -9. 2.2 – 5.0	Z-Type	500	
PT-V Plus 45 -A. 2.2 – 5.0	Z-Type	500	
PT-V Plus 45 -B. 2.2 – 5.0	Z-Type	500	
PT-V Plus 45 -C. 2.2 – 5.0	Z-Type	500	
PT-V Plus 45 -D. 2.2 – 5.0	Z-Type	500	
PT-V Plus 45 -E. 2.2 – 5.0	Z-Type	500	
PT-V Plus 45 -F. 2.2 – 5.0	Z-Type	500	
PT-V Plus 45 -G. 2.2 – 5.0	Z-Type	500	
PT-V Plus 45 -H. 2.2 – 5.0	Z-Type	500	
PT-V Plus 45 -I. 2.2 – 5.0	Z-Type	500	
PT-V Plus 45 -J. 2.2 – 5.0	Z-Type	500	
PT-V Plus 45 -K. 2.2 – 5.0	Z-Type	500	
PT-V Plus 45 -L. 2.2 – 5.0	Z-Type	500	
PT-V Plus 45 -M. 2.2 – 5.0	Z-Type	500	
PT-V Plus 45 -N. 2.2 – 5.0	Z-Type	500	

PT-V Plus 45 – O. 2.2 – 5.0	Z-Type	500
PT-V Plus 45 – P. 2.2 – 5.0	Z-Type	500
PT-V Plus 45 – Q. 2.2 – 5.0	Z-Type	500
PT-V Plus 45 – R. 2.2 – 5.0	Z-Type	500
PT-V Plus 45 – S. 2.2 – 5.0	Z-Type	500
PT-V Plus 45 – T. 2.2 – 5.0	Z-Type	500
PT-V Plus 45 – U. 2.2 – 5.0	Z-Type	500
PT-V Plus 45 – V. 2.2 – 5.0	Z-Type	500
PT-V Plus 45 – W. 2.2 – 5.0	Z-Type	500
PT-V Plus 45 – X. 2.2 – 5.0	Z-Type	500
PT-V Plus 45 – Y. 2.2 – 5.0	Z-Type	500
PT-V Plus 45 – Z. 2.2 – 5.0	Z-Type	500

**Cable Markers for Large Cables – Black on Yellow**

Part No.	Description	Pack
Size 65–0 (Zero)	K-Type	500
Size 65–1	K-Type	500
Size 65–2	K-Type	500
Size 65–3	K-Type	500
Size 65–4	K-Type	500
Size 65–5	K-Type	500
Size 65–6	K-Type	500
Size 65–7	K-Type	500
Size 65–8	K-Type	500
Size 65–9	K-Type	500
Size 65–A	K-Type	500
Size 65–B	K-Type	500
Size 65–C	K-Type	500
Size 65–D	K-Type	500
Size 65–E	K-Type	500
Size 65–F	K-Type	500
Size 65–G	K-Type	500
Size 65–H	K-Type	500

Size 65–I	K-Type	500
Size 65–J	K-Type	500
Size 65–K	K-Type	500
Size 65–L	K-Type	500
Size 65–M	K-Type	500
Size 65–N	K-Type	500
Size 65–O (Let.)	K-Type	500
Size 65–P	K-Type	500
Size 65–Q	K-Type	500
Size 65–R	K-Type	500
Size 65–S	K-Type	500
Size 65–T	K-Type	500
Size 65–U	K-Type	500
Size 65–V	K-Type	500
Size 65–W	K-Type	500
Size 65–X	K-Type	500
Size 65–Y	K-Type	500
Size 65–Z	K-Type	500
Size 65–Blank	K-Type	500
Size 65–Full Stop	K-Type	500
Size 65–Minus	K-Type	500
Size 65–Oblique	K-Type	500
Size 65–Plus	K-Type	500

**Carrier Strips**

Part No.	Description	Pack
Digit – 8	8 Way	100
Digit – 12	12 Way	100
Digit – 24	24 Way	100



### SES Neoprene Sleeves



Temperature range -- -30°C to +90°C

Part No.	Size mm <sup>2</sup>	Pack Qty
Aoa-M Black 20mm	1.2 – 2.5	1000
Aoa-FM Blue 20mm	1.2 – 2.5	1000
Aoa-FM Brown 20mm	1.2 – 2.5	1000
Aoa-FM Grey 20mm	1.2 – 2.5	1000
Aoa-FM Red 20mm	1.2 – 2.5	1000
Aoa-FM Yellow 20mm	1.2 – 2.5	1000
Aobis-M Black 20mm	1.5 – 3.0	1000
Aobis-FM Blue 20mm	1.5 – 3.0	1000
Aobis-FM Brown 20mm	1.5 – 3.0	1000
Aobis-FM Grey 20mm	1.5 – 3.0	1000
Aobis-FM Red 20mm	1.5 – 3.0	1000
Aobis-FM Yel. 20mm	1.5 – 3.0	1000
A1a-M Black 20mm	2.0 – 4.0	1000
A1a-FM Blue 20mm	2.0 – 4.0	1000
A1a-FM Brown 20mm	2.0 – 4.0	1000
A1a-FM Grey 20mm	2.0 – 4.0	1000
A1a-FM Red 20mm	2.0 – 4.0	1000
A1a-FM Yellow 20mm	2.0 – 4.0	1000
A2a-M Black 25mm	3.0 – 6.0	1000
A2a-FM Blue 25mm	3.0 – 6.0	1000
A2a-FM Brown 25mm	3.0 – 6.0	1000
A2a-FM Grey 25mm	3.0 – 6.0	1000
A2a-FM Red 25mm	3.0 – 6.0	1000
A2a-FM Yellow 25mm	3.0 – 6.0	1000
A3a-M Black 25mm	5.0 – 10.0	1000
A3a-FM Blue 25mm	5.0 – 10.0	1000
A3a-FM Brown 25mm	5.0 – 10.0	1000
A3a-FM Grey 25mm	5.0 – 10.0	1000
A3a-FM Red 25mm	5.0 – 10.0	1000
A3a-FM Yellow 25mm	5.0 – 10.0	1000
A3a-FM Green 25mm	5.0 – 10.0	1000
A4a-FM Blue 25mm	7.5 – 12.0	1000
A4a-FM Grey 25mm	7.5 – 12.0	1000
A4a-FM Brown 25mm	7.5 – 12.0	1000
A4-M Black 25mm	7.5 – 12.0	1000
A4-M Yellow 25mm	7.5 – 12.0	1000
A5-M Black 35mm	10.0 – 15.0	500
A5-M Blue 35mm	10.0 – 15.0	500
A5-M Brown 35mm	10.0 – 15.0	500
A5-M Grey 35mm	10.0 – 15.0	500
A8a-D Blue 50mm	12.0 – 20.0	500
A8a-FD Brown 50mm	12.0 – 20.0	500

### SES Sleeve Expanders

Part No.	To suit Sleeve Size
SES-KP1	A0 – A1
SES-KP3	A2 – A3 – A4 – A5
SES-KP4	A5 – A8

### Nylon Label Rivets

Description	Hole Diameter	Part No.	Pack
Snap Rivet	4.1 – 4.2mm	NR 4050 W	1000



### Cable Ties



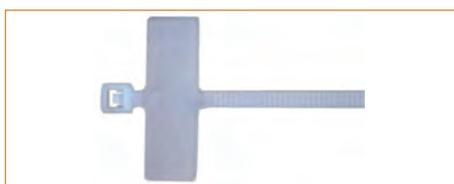
Cable Ties to E75050, UL 94V2, Military spec. 23190D

Type No.	Colour	Size mm	Pack
1697890000	Black	98 x 2.5mm	100
1697900000	Black	140 X 3.6mm	100
1720660000	Black	200 x 3.6mm	100
1697910000	Black	200 x 4.8mm	100
1697920000	Black	290 x 4.8mm	100
7940006069	Black	300 x 7.8mm	100
1697930000	Black	360 x 4.8mm	100
1697940000	Black	365 x 7.8mm	100
7940006071	Black	450 x 7.8mm	100
7940006073	Black	540 x 7.8mm	100
7940006075	Black	780 x 9.0mm	100
1278600000	Natural	98 x 2.5mm	100
1278700000	Natural	140 X 3.6mm	100
1270630000	Natural	200 x 3.6mm	100
1278800000	Natural	200 x 4.8mm	100
1720640000	Natural	290 x 3.6mm	100
1278900000	Natural	290 x 4.8mm	100
7940006068	Natural	300 x 7.8mm	100
1279000000	Natural	360 x 4.8mm	100
1279100000	Natural	365 x 7.8mm	100
7940006070	Natural	450 x 7.8mm	100
7940006072	Natural	540 x 7.8mm	100
7940006074	Natural	780 x 9.0mm	100



### Cable Tie Bases

Type No.	Colour	Size mm	Pack
1697950000	Black	19 x 19mm	100
1697960000	Black	27 x 27mm	100
1289200000	Natural	19 x 19mm	100
1289400000	Natural	27 x 27mm	100



### Marker 'FLAG' Type Cable Ties

Part No.	Width	Length	Pack
MAR 100F	2.5mm	100mm	100
MAR 200W	4.6mm	200mm	100
220-48MT	4.8mm	220mm	100



### Stainless Steel Cable Ties

Type AISI 316 Temp -80°C to +540°C

Part No.	Width	Length	Pack
SST 1316	4.6mm	150mm	100
SST 2316	4.6mm	201mm	100
SST 3316	4.6mm	259mm	100
SST 3816	4.6mm	300mm	100
SST 4316	4.6mm	360mm	100
SST 5316	4.6mm	520mm	100
SST 6316	4.6mm	680mm	100

### Stainless Steel Cable Ties Coated Type

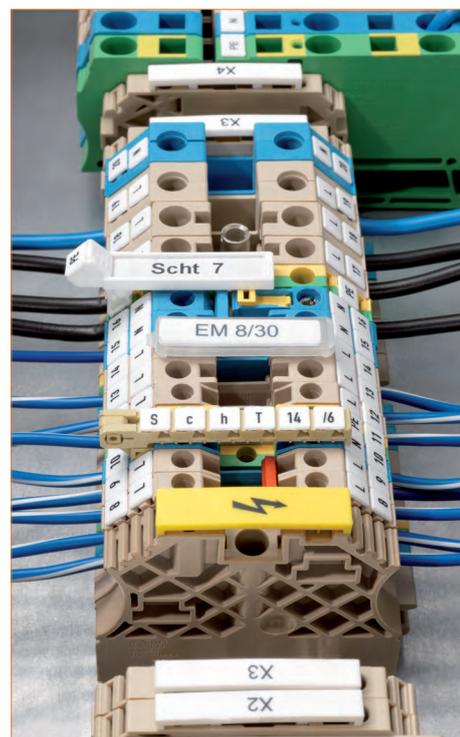
Type AISI 316 Temp -80°C to +540°C

Part No.	Width	Length	Pack
SSTC 1316	4.6mm	150mm	100
SSTC 2316	4.6mm	201mm	100
SSTC 3316	4.6mm	259mm	100
SSTC 3816	4.6mm	300mm	100
SSTC 4316	4.6mm	360mm	100
SSTC 5316	4.6mm	520mm	100
SSTC 6316	4.6mm	680mm	100



### Black PVC Profile Grommet Strip

Part No.	Size	Pack
Black Profile	1 – 4mm	25 mtrs



# Cables in Single Way Cleats

For 1kV PVC or XLPE SWA copper conductor cables, to BS 6346 or BS 5467.

Cable Type	Details Conductor Area sq. mm	Cleats Number of Cores 385LSF**	Nominal Overall Diameter mm 374AA**	Telcleats 385AA** 370 BB	Plastic Two Bolt	Aluminium Claw and two bolt 370 BA
		2	12.3	01	–	01
		3	12.8	01	–	01
		4	13.5	01	–	02
PVC	1.5	7	15.2	02	–	02
		12	19.4	03	–	04
		19	22.2	04	–	05
		27	26.7	05	–	06
		37	29.2	06	–	06
		2	13.6	01	–	02
		3	14.1	01	–	02
		4	15.0	02	–	02
PVC	2.5	7	18.0	03	–	03
		12	22.4	04	–	05
		19	26.6	05	–	06
		27	30.7	06	–	06
		37	34.0	06	–	07
		2	15.1	02	–	02
PVC	4	3	15.8	02	–	02
		4	17.8	03	–	03
		2	16.5	03	–	03
PVC	6	3	18.0	03	–	03
		4	19.2	04	–	04
		2	20.1	04	–	04
PVC	10	3	21.2	04	–	04
		4	22.8	04	–	05
		2	21.9	04	–	04
PVC	16	3	23.1	04	–	05
		4	26.3	05	–	06
		2	24.3	05	–	05
XLPE	25	3	26.9	05	–	06
		4	29.1	06	–	06
		2	27.9	05	–	06
XLPE	35	3	29.6	06	–	06
		4	32.1	06	–	07
		2	25.3	05	–	06
XLPE	50	3	28.4	06	–	06
		4	31.3	06	–	06
		2	28.1	05	–	06
XLPE	70	3	32.0	06	–	07
		4	36.8	07	–	07
		2	31.9	06	–	06
XLPE	95	3	36.7	07	–	07
		4	40.6	08	–	08
		2	35.1	07	–	07
XLPE	120	3	40.0	07	–	08
		4	45.8	08	–	09
		2	38.2	07	–	08
XLPE	150	3	45.1	08	–	09
		4	49.9	08	–	09
		2	43.3	08	–	08
XLPE	185	3	49.3	08	–	09
		4	54.9	–	01	10
		2	48.3	08	–	09
XLPE	240	3	54.5	–	01	10
		4	61.0	–	02	11
		2	52.5	–	01	10
XLPE	300	3	59.5	–	02	11
		4	66.5	–	03	12
		2	58.0	–	02	11
XLPE	400	3	65.8	–	03	12
		4	75.4	–	04	13

Cable cleats



Telcleats

Overlapping, self adjusting one piece design. Low density black polythene, temperature range: -70 to +70°C.

Part No.	Cable Range	Pack Qty
385AA01	10.5 – 14.5	100
385AA02	12.2 – 16.7	100
385AA03	14.6 – 19.8	100
385AA04	17.7 – 24.0	50
385AA05	21.7 – 28.5	25
385AA06	26.2 – 34.2	25
385AA07	31.9 – 41.6	10
385AA08	39.3 – 51.1	10

Telcleats LSF

Low smoke and fume, zero halogen. Coloured red to distinguish from black Telcleat.

Part No.	Cable Range	Pack Qty
385LSF01	10.5 – 14.5	100
385LSF02	12.2 – 16.7	100
385LSF03	14.6 – 19.8	100
385LSF04	17.7 – 24.0	50
385LSF05	21.7 – 28.5	25
385LSF06	26.2 – 34.2	25
385LSF07	31.9 – 41.6	10
385LSF08	39.3 – 51.1	10

Plastic Two Bolt Cleat

Black polypropolene, two fixing design, -20 to +90°C.

Part No.	Cable Range	Pack Qty
374AA01 (2F-09B)	51 – 57	10
374AA02 (2F-10B)	57 – 64	10
374AA03 (2F-11B)	64 – 70	10
374AA04 (2F-1200B)	70 – 76	10
374AA05 (2F-1201B)	76 – 83	10
374AA06 (2F-1202B)	83 – 90	10
2F – 132	97 – 105	10



Single Way Plastic Cleat

Size mm	Pack/Qty	Part No.
10.2 – 12.7	100	CC5
12.7 – 15.2	100	CC6
15.2 – 17.8	100	CC7
17.8 – 20.3	100	CC8
20.3 – 22.8	100	CC9
22.8 – 25.4	100	CC10
25.4 – 27.7	100	CC11
27.7 – 30.4	100	CC12
30.4 – 35.6	100	CC14
35.6 – 40.6	100	CC16
40.6 – 45.7	100	CC18
45.7 – 50.8	100	CC20



Aluminium Claw Cable Cleat

Aluminium alloy two piece design, -60 to +100°C.

Part No.	Cable Range	Pack Qty
370BA01	10 – 13	10
370BA02	13 – 16	10
370BA03	16 – 19	10
370BA04	19 – 22	10
370BA05	22 – 25	10
370BA06	25 – 32	10
370BA07	32 – 38	10
370BA08	38 – 44	10
370BA09	44 – 51	10

Aluminium Two Bolt Cleats

Aluminium alloy two piece design, temperature range: -60 to +100°C.

Part No.	Cable Range	Pack Qty
370BA10	51 – 57	10
370BA11	57 – 64	10
370BA12	64 – 70	10
370BA13	70 – 76	10
370BA14	76 – 83	10
370BA15	83 – 89	10
370BA16	89 – 95	10
370BA17	95 – 101	10
370BA18	101 – 108	10
370BA19	108 – 114	10

Heatshrink Sleeveing



High Quality 2:1 Shrink Ratio

Material: Flame Retardant Polyolefin

UL Approved

Shrink Temperature 100°C

Working Temperature 100°C

Available in black, clear, red, yellow, blue, white, green, grey and earth (green/yellow).

Please specify colour when ordering.

Part No.	Size mm	Pack Qty
HS 212	1.2-0.6	300
HS 216	1.6-0.8	300
HS 224	2.4 – 1.2	150
HS 232	3.2 – 1.6	150
HS 248	4.8 – 2.4	75
HS 264	6.4 – 3.2	60
HS 295	9.5 – 4.7	60
HS 2127	12.7 – 6.4	60
HS 2191	19.0 – 10.0	60
HS 2254	25.4 – 12.7	30
HS 2381	38.1 – 21.0	30
HS 2508	50.8 – 27.0	30
HS 2762	76.0 – 50.0	15
HS 21016	101.6 – 50.8	15

MULTI CLEAT – Standard Range



Trefoil

Part No.	Cable DIA. mm	Pack Qty
378AB01	24 – 34	10
378AB02	30 – 41	10
378AB03	37 – 47	10
378AB04	43 – 54	10
378AB05	50 – 60	10
378AB06	56 – 67	10
378AB07	63 – 73	10
378AB08	69 – 80	10



Aluminium Trefoil cleats

Aluminium Alloy trefoil cleats, single fixing, -60 to +100°C

Part No.	Cable DIA. mm	Pack Qty
376AC01	24 – 25	10
376AC02	25 – 27	10
376AC03	27 – 28	10
376AC04	28 – 30	10
376AC05	30 – 32	10
376AC06	32 – 34	10
376AC07	34 – 35	10

Heatshrink supplied in "mini" boxes

Please specify colour when ordering

Part No.	Size mm	Pack Qty
HSMB 212	1.2 - 0.6	20
HSMB 216	1.6 - 0.8	17
HSMB 224	2.4 - 1.2	15
HSMB 232	3.2 - 1.6	15
HSMB 248	4.8 - 2.4	12
HSMB 264	6.4 - 3.2	12
HSMB 295	9.5 - 4.7	8
HSMB 2127	12.7 - 6.4	8
HSMB 2191	19.1 - 10.0	5
HSMB 2254	25.4 - 12.7	5

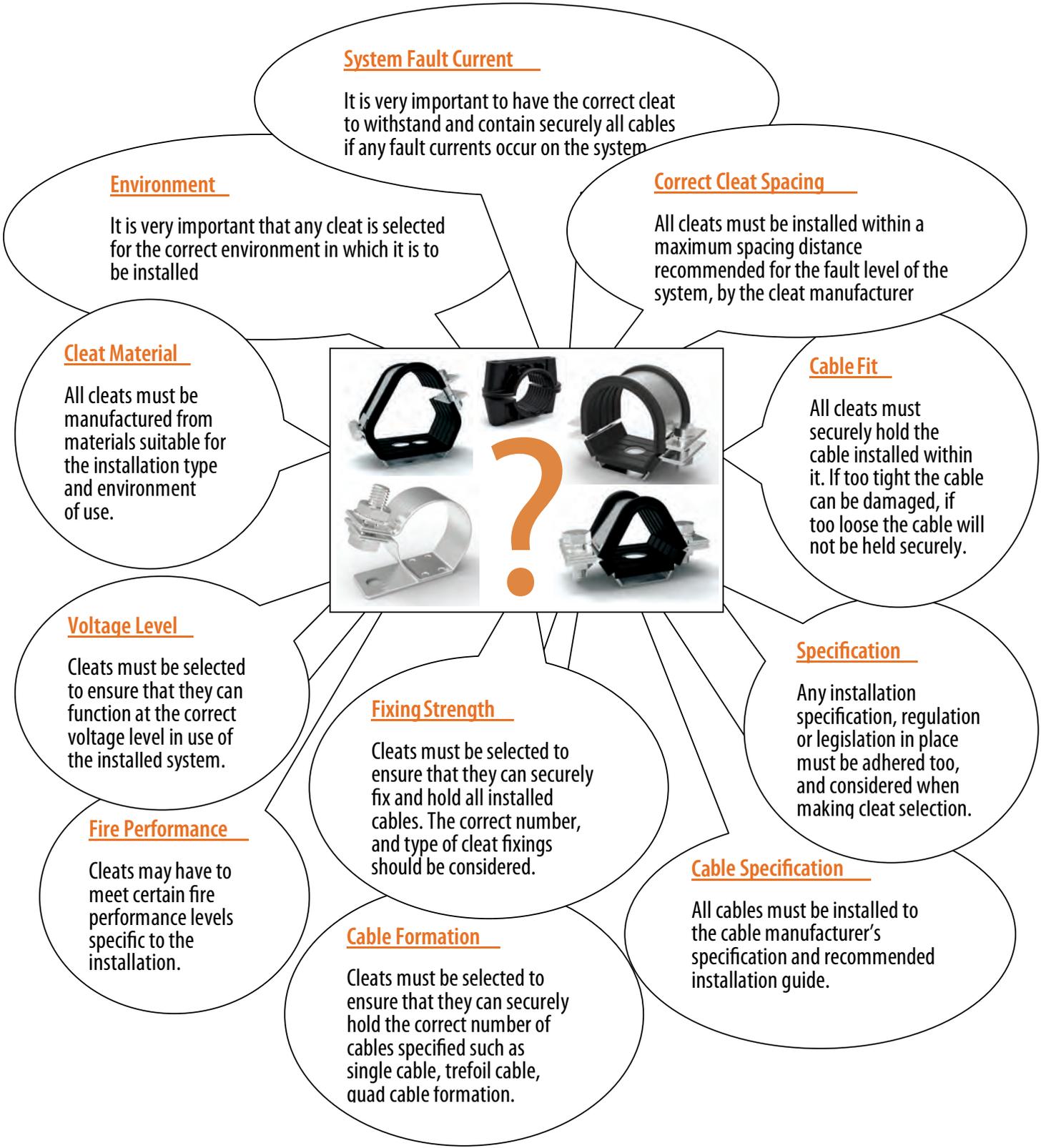
Dual Wall, Adhesive Lined, Heatshrink Polyolefin Tubing 3: 1 Shrink Ratio

Part No.	Size mm	Max
HSDW 3-3	3.0-1.0	1.0mm
HSDW 3-4.8	4.5-1.5	1.5mm
HSDW 3-6	6.0-2.0	2.0mm
HSDW 3-9	9.0mm	3.0mm
HSDW 3-12	12.0mm	4.0mm
HSDW 3-18	19.0mm	6.0mm
HSDW 3-24	24.0mm	8.0mm
HSDW 3-39	39.0mm	13.0mm

# Factors to consider when selecting cable cleats for your system

*Our technical team can assist you in the correct selection of cleat for your system.*

*Please call our sales office on 01 453 2522 for more information.*





# Fire pillows

Fire pillows are designed to temporarily protect cable trays, ducts, pipework and electrical trunking.

The pillows expand to 3 times their original size in a fire to prevent it spreading.

- ▲ Specially treated glass cloth, filled with a mixture of intumescent mineral fibres.
- ▲ 120-minute fire rated.
- ▲ Easily installed and removed for reuse.
- ▲ Available in 4 sizes.
- ▲ Conform to BS 476-20 and EN 1366-3.
- ▲ Certifire approved.



## APHASLAM

Industrial Electrical Equipment Specialists

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## FLEXICON – Flexible Conduits and Connectors

**FPC – PVC Spiral Reinforced Conduit**

Size mm	Part No.	Reel Size
20	FPC – 20/30	30 mtrs
25	FPC – 25/30	30 mtrs
32	FPC – 32/30	30 mtrs
40	FPC – 40/30	30 mtrs
50	FPC – 50/30	30 mtrs
50	FPC – 50/10	10 mtrs
63	FPC – 63/30	30 mtrs
63	FPC – 63/10	10 mtrs

**MPC Connectors (PA 66 Nylon)**

Size mm	Part No.	Pack Qty
20	MPC – 20 – M20B	10
25	MPC – 25 – M25B	10
32	MPC – 32 – M32B	10
40	MPC – 40 – M40B	10
50	MPC – 50 – M50B	10
63	MPC – 63 – M63B	10

**FPC Contractor packs IP65**

Size mm	Part No.
20	FPC – CP20B 10
25	FPC – CP25B 10

**FPAS – Nylon Corrugated Conduit**

Size mm	Part No.	Pack Qty
16	FPAS – 16B – 50M	10
20	FPAS – 21B – 50M	10
25	FPAS – 25B – 50M	10
32	FPAS – 34B – 25M	10
40	FPAS – 42B – 25M	10
50	FPAS – 54B – 25M	10

**FPA Connectors (PA 66 Nylon)**

Size mm	Part No.	Pack Qty
16	FPA16 – M16 Black	10
20	FPA21 – M20 Black	10
25	FPA25 – M25 Black	10
32	FPA34 – M32 Black	10
40	FPA42 – M40 Black	2
50	FPA54 – M50 Black	2

**FPAS Contractor Packs IP65**

Size mm	Part No.	Pack Qty
20	FPAS – CP21B	10
25	FPAS – CP28B	10

**FPP – Polypropylene corrugated conduit**

Colour: Black. Also available in Grey.

Size mm	Part No.	Reel size
20	FPP 20B/50M Black	50
25	FPP 25B/50M Black	50

**FLK Connectors (Polypropylene moulded)**

Size mm	Part No.	Pack Qty
20	FLK20 – M20BPP	10
25	FLK25 – M25BPP	10

**FPP Contractor Packs**

Size mm	Part No.
20	FPP – CP20B10
25	FPP – CP25B10

**FSU – Galvanised steel PVC coated conduit**

Size mm	Part No.
20	FSU – 20/50 50
25	FSU – 25/25 25
25	FSU – 25/50 50
32	FSU – 32/25 25

Size mm	Part No.	Reel size
20	FSU20B-30ME	30
25	FSU25B-30ME	30

**Connectors to suit FSU conduit N/P Brass**

Size mm	Part No.	Pack Qty
20	FSU20 – M20 – M	10
25	FSU25 – M25 – M	10
32	FSU32 – M32 – M	10
20 swivel type	FSU20 – M20 – S	10
25 swivel type	FSU25 – M25 – S	10
32 swivel type	FSU32 – M32 – S	10

**FU Bare galvanised steel conduit**

Size mm	Part No.	Reel size
16	FU 16/50	50 Mtrs
20	FU 20/25	25 Mtrs
20	FU 20/50	50 Mtrs
25	FU 25/25	25 Mtrs
25	FU 25/50	50 Mtrs
32	FU 32/25	25 Mtrs

**Connectors to suit FU conduit (N/P brass)**

Size mm	Part No.	Pack Qty
16	FU16 – M16 – M	10
20	FU20 – M20 – M	10
25	FU25 – M25 – M	10
32	FU32 – M32 – M	10
20 Swivel type	FU20 – M20 – S	10
25 Swivel type	FU25 – M25 – S	10
32 Swivel type	FU32 – M32 – S	10

**SSU – Stainless steel conduit**

Size mm	Part No.	Reel size
20	SSU 20/25	25 Mtrs
25	SSU 25/25	25 Mtrs
32	SSU 32/25	25 Mtrs

**Connectors to suit SSU conduit**

Stainless steel. IP40.

Size mm	Part No.	Pack Qty
20	SSU20 – M20 – M	10
25	SSU25 – M25 – M	10
32	SSU32 – M32 – M	10

**FLP – Leaded Steel PVC Coated Conduit**

Size mm	Part No.	Reel size
20	FLP 20/25	25
20	FLP 20/50	50
25	FLP 25/25	25
25	FLP 25/50	50
32	FLP 32/25	25

**Connectors to suit FLP conduit**

Nickel plated brass. IP66/IP67.

Size mm	Part No.	Pack Qty
20	FLP 20 – M20 – C	10
25	FLP 25 – M25 – C	10
32	FLP 32 – M32 – C	10

**LTP – Liquid Tight Conduit**

Colour: Black

Size mm	Part No.	Reel size
20	LTP 20/50	50
25	LTP 25/50	50
32	LTP 32/25	25

**Connectors to suit LTP conduit N/P Brass**

Size mm	Part No.	Pack Qty
20	LTP 20 – M20 – C	10
25	LTP 25 – M25 – C	10
32	LTP 32 – M32 – C	10

## Anamet – Anaconda Multitite Conduit

### Material & Construction

Construction: Galvanised steel core, square-locked with thin wall convoluted Thermoplastic Poly-Olefin (TPO) cover.

Cover specifications: Poly-Olefin, lead-free according to RoHS, sunlight and UV resistant, suitable for outside installation.

Classification according to NEN-EN-IEC 61386:

Compression resistance: Class 4, Heavy (1250 N).

Impact resistance: Class 4, Heavy (6 J).

Tensile strength: Class 4, Heavy (1000 N).

### TYPE FCE-LFH BLACK

Construction: Galvanised steel core, square-locked with thin wall convoluted Thermoplastic Poly-Olefin (TPO) cover.

Colour: Black

### Approvals

- EN 45545-2 (2013): R22 (interior equipment) class HL 1, HL 2 and HL 3. R23 (exterior equipment) class HL 1, HL 2 and HL 3. (CIT<sub>nl</sub> = 0,09, D<sub>s</sub> max = 121 and LOI = 41,5).
  - BS 6853 (1999) Table 7 (Interior) Category 1b and II vehicle. Table 8 (Exterior) Category 1a, 1b and II vehicle
  - London Underground LUL 1-085 (2011). Table 4: limited and dispersed usage. Only sizes 20 and 25 are officially registered.
- Protection class: IP 67 (dust-proof, water-tight).  
Temperature: -25 °C till +80 °C, intermittent up to +100 °C.



Multitite	Diametre		Bending radius (d)		Small reel		Standard reel		Large reel		Weight
	Size	Inside	Outside	Static	Dynamic	Metre	Article No.	Metre	Article No.	Metre	
DN	(mm)	(mm)	(mm)	(mm)		Black		Black		Black	(Kg/m)
12	10.0	14.0	37	50	-	-	25	373.012.2	-	-	0.18
16	13.0	17.0	45	60	-	-	25	373.016.2	50	373.016.5	0.23
20	17.0	21.5	55	80	10	373.020.1	25	373.020.2	50	373.020.5	0.30
25	21.2	26.0	70	100	10	373.025.1	25	373.025.2	50	373.025.5	0.39
32	28.1	34.0	95	125	10	373.032.1	25	373.032.2	-	-	0.52
40	37.7	45.0	115	160	10	373.040.1	25	373.040.2	-	-	0.75
50	48.4	56.0	135	190	10	373.050.1	25	373.050.2	-	-	1.10

### TYPE FCE-LFHB

Construction: Galvanised steel core, square-locked with thin wall convoluted Thermoplastic Poly-Olefin (TPO compound) cover and stainless steel AISI-304 braiding.

Colour: Metal coloured



FCE-LFHB	Diametre		Bending radius (d)		Small reel		Standard reel		Large reel		Weight
	Size	Inside	Outside	Static	Dynamic	Metre	Article No.	Metre	Article No.	Metre	
DN	(mm)	(mm)	(mm)	(mm)		Black		Black		Black	(Kg/m)
16	13.0	18.2	45	60	-	-	25	375.016.2	-	-	0.38
20	17.0	22.7	55	80	-	-	25	375.020.2	-	-	0.49
25	21.2	27.2	70	100	-	-	25	375.025.2	-	-	0.62
32	28.1	35.2	95	125	-	-	25	375.032.2	-	-	0.82

### TYPE FCE BLACK

Construction: Galvanised steel core, square-locked with thin wall convoluted Thermoplastic Poly-Olefin (TPO compound) cover and stainless steel AISI-304 braiding.

Colour: Metal coloured



FCE	Diametre		Bending radius (d)		Small reel		Standard reel		Large reel		Weight
	Size	Inside	Outside	Static	Dynamic	Metre	Article No.	Metre	Article No.	Metre	
DN	(mm)	(mm)	(mm)	(mm)		Black		Black		Black	(Kg/m)
10	7.0	10.0	30	40	-	-	25	371.010.2	50	371.010.5	0.10
12	10.0	14.0	37	50	-	-	25	371.012.2	50	371.012.5	0.18
16	13.0	17.0	45	60	10	371.016.1	25	371.016.2	50	371.016.5	0.23
20	17.0	21.5	55	80	10	371.020.1	25	371.020.2	50	371.020.5	0.30
25	21.2	26.0	70	100	10	371.025.1	25	371.025.2	50	371.025.5	0.39
32	28.1	34.0	95	125	10	371.032.1	25	371.032.2	-	-	0.52
40	37.7	45.0	115	160	10	371.040.1	25	371.040.2	-	-	0.75
50	48.4	56.0	135	190	10	371.050.1	25	371.050.2	-	-	1.10

## ABL Sursum Industrial Plugs and Sockets

*Surface Sockets (Splashproof) – IP44*

Amps	Volts Entry	Poles	Thread	Part No.
16A	24V	2	M25	D01S20
16A	24V	2P+E	M25	D11S20
16A	110V	2P+E	M25	D31S10
16A	230V	2P+E	M25	D31S20
16A	400V	3P+E	M25	D41S30
16A	400V	3P+N+E	M25	D51S30
32A	110V	2P+E	M25	D32S10
32A	230V	2P+E	M25	D32S20
32A	400V	3P+E	M25	D42S30
32A	400V	3P+N+E	M25	D52S30

*Surface socket (Watertight) – IP67*

Amps	Volts Entry	Poles	Thread	Part No.
16A	24V	2P	M25	D01S25
16A	24V	2P+E	M25	D11S25
16A	110V	2P+E	M25	D31S15
16A	230V	2P+E	M25	D31S25
16A	400V	3P+E	M25	D41S35
16A	400V	3P+N+E	M25	D51S35
32A	110V	2P+E	M25	D32S15
32A	230V	2P+E	M25	D32S25
32A	400V	3P+E	M25	D42S35
32A	400V	3P+N+E	M25	D52S35
63A	230V	2P+E	PG29	D33S25
63A	400V	3P+E	PG29	D43S35
63A	400V	3P+N+E	PG29	D53S35
125A	230V	2P+E	PG36	D34S25
125A	400V	3P+E	PG36	D44S35
125A	400V	3P+N+E	PG36	D54S35

*Plugs (Splashproof) – IP44*

Amps	Volts	Poles	Part No.
16A	24V	2P	S01S20
16A	24V	2P+E	S11S20
16A	110V	2P+E	S31S10
16A	220V	2P+E	S31S20
16A	400V	3P+E	S41S30
16A	400V	3P+N+E	S51S30
32A	110V	2P+E	S32S10
32A	230V	2P+E	S32S20
32A	400V	3P+E	S42S30
32A	400V	3P+N+E	S52S30

*Plugs (Watertight) – IP67*

Amps	Volts	Poles	Part No.
16A	24V	2P	S01S25
16A	24V	2P+E	S11S25
16A	110V	2P+E	S31S15
16A	230V	2P+E	S31S25
16A	400V	3P+E	S41S35
16A	400V	3P+N+E	S51S35
32A	110V	2P+E	S32S15
32A	230V	2P+E	S32S25
32A	400V	3P+E	S42S35
32A	400V	3P+N+E	S52S35
63A	220V	2P+E	S33S25
63A	400V	3P+E	S43S35
63A	400V	3P+N+E	S53S35
125A	230V	2P+E	S34S25
125A	400V	3P+E	S44S35
125A	400V	3P+N+E	S54S35

*Couplers (Splashproof) – IP44*

Amps	Volts	Poles	Part No.
16A	24V	2P	K01S20
16A	24V	2P+E	K11S20
16A	110V	2P+E	K31S10
16A	220V	2P+E	K31S20
16A	400V	3P+E	K41S30
16A	400V	3P+N+E	K51S30
32A	110V	2P+E	K32S10
32A	220V	2P+E	K32S20
32A	400V	3P+E	K42S30
32A	400V	3P+N+E	K52S30

*Couplers (Watertight) – IP67*

Amps	Volts	Poles	Part No.
16A	24V	2P	K01S25
16A	24V	2P+E	K11S25
16A	110V	2P+E	K31S15
16A	220V	2P+E	K31S25
16A	400V	3P+E	K41S35
16A	400V	3P+N+E	K51S35
32A	110V	2P+E	K32S15
32A	220V	2P+E	K32S25
32A	400V	3P+E	K42S35
32A	400V	3P+N+E	K52S35
63A	230V	2P+E	K33S25
63A	400V	3P+E	K43S35
63A	400V	3P+N+E	K53S35
125A	230V	2P+E	K34S25
125A	400V	3P+E	K44S35
125A	400V	3P+N+E	K54S35

*Flush Sockets Angled (Splashproof) – IP44*

Amps	Volts	Poles	Part No.
16A	24V	2P	F01S201
16A	24V	3P	F11S201
16A	110V	2P+E	F31S100
16A	230V	2P+E	F31S200
16A	400V	3P+E	F41S30
16A	400V	3P+N+E	F51S30
32A	110V	2P+E	F32S10
32A	230V	2P+E	F32S20
32A	400V	3P+E	F42S30
32A	400V	3P+N+E	F52S30

*Flush Sockets Angled (Watertight) – IP67*

Amps	Volts	Poles	Part No.
16A	24V	2P+E	F01S254
16A	24V	3P+E	F11S254
16A	110V	2P+E	F31S170
16A	230V	2P+E	F31S270
16A	400V	3P+E	F41S370
16A	400V	3P+N+E	F51S370
32A	110V	2P+E	F32S170
32A	230V	2P+E	F32S270
32A	400V	3P+E	F42S370
32A	400V	3P+N+E	F52S370
63A	230V	2P+E	F33S286
63A	400V	3P+E	F43S386
63A	400V	3P+N+E	F53S386
125A	230V	2P+E	F34S287
125A	400V	3P+E	F44S387
125A	400V	3P+N+E	F54S387

*Surface Mounted Appliance Inlets - IP44*

Amps	Volts	Poles	Part No.
16A	110V	2P + E	G31S10
16A	230V	2P + E	G31S20
16A	400V	3P + E	G41S30
16A	400V	3P + N + E	G51S30
32A	110V	2P + E	G32S10
32A	230V	2P + E	G32S20
32A	400V	3P + E	G42S30
32A	400V	3P + N + E	G52S30

*Flush Mounted Appliance Inlets - IP44*

Amps	Volts	Poles	Part No.
16A	110V	2P + E	A31S12
16A	230V	2P + E	A31S22
16A	400V	3P + E	A41S32
16A	400V	3P + N + E	A51S32
32A	110V	2P + E	A32S12
32A	230V	2P + E	A32S22
32A	400V	3P + E	A42S32
32A	400V	3P + N + E	A52S32

*CEE to BS Socket Adaptor*

Amps	Volts	Poles	Part No.
16A	230V	2P+E	ML6.8216.UK

ABL Sursum Industrial Plugs and Sockets



Surface Mounted Appliance Inlets- IP67

Amps	Volts	Poles	Part No.
63A	110V	2P + E	A33S16
63A	230V	2P + E	A33S26
63A	400V	3P + E	A43S26
63A	400V	3P + N + E	A53S36

Flush Mounted Appliance Inlets - IP67

Amps	Volts	Poles	Part No.
63A	110V	2P + E	A33S17
63A	230V	2P + E	A33S27
63A	400V	3P + E	A43S37
63A	400V	3P + N + E	A53S37
125A	110V	2P + E	A34S17
125A	230V	2P + E	A34S27
125A	400V	3P + E	A43S37
125A	400V	3P + N + E	A53S37



Event Line Plugs - Black

Amps	Volts	Poles	Part No.
16A	230V	2P + E	S31S20B
32A	230V	2P + E	S32S20B

Event Line Couplers - Black

Amps	Volts	Poles	Part No.
16A	230V	2P + E	K31S20B
32A	230V	2P + E	K32S20B

Event Line Panel Mounted Sockets - Black

Amps	Volts	Poles	Part No.
16A	230V	2P + E	F31S20B
32A	230V	2P + E	F32S20B

Surface – Switch interlocked sockets – IP44 (Straight Type)

Amps	Volts	Poles	Part No.
16A	110V	2P+E	C31S101
16A	230V	2P+E	C31S201
16A	400V	3P+E	C41S201
16A	400V	3P+N+E	C51S201
32A	110V	2P+E	C32S101
32A	230V	2P+E	C32S201
32A	400V	3P+E	C42S201
32A	400V	3P+N+ E	C52S201

Panel Mounted Schuko Socket

Amps	Poles	Part No.
16A	2P	1461050



Surface – Switch Interlocked Sockets – IP67 (Straight Type)

Amps	Volts	Poles	Part No.
16A	110V	2P+E	C31S151
16A	230V	2P+E	C32S251
16A	400V	3P+E	C41S251
16A	400V	3P+N+ E	C51S251
32A	110V	2P+E	C32S151
32A	230V	2P+E	C32S251
32A	400V	3P+E	C42S251
32A	400V	3P+N+E	C52S251

Surface – Switch interlocked sockets – IP44 (Angled Type)

Amps	Volts	Poles	Part No.
16A	110V	2P+E	C31S102
16A	230V	2P+E	C31S202
16A	400V	3P+E	C41S202
16A	400V	3P+N+E	C51S202
32A	110V	2P+E	C32S102
32A	230V	2P+E	C32S202
32A	400V	3P+E	C42S202
32A	400V	3P+N+ E	C52S202

Surface – Switch Interlocked Sockets – IP67 (Angled Type)

Amps	Volts	Poles	Part No.
16A	110V	2P+E	C31S152
16A	230V	2P+E	C32S252
16A	400V	3P+E	C41S252
16A	400V	3P+N+ E	C51S252
32A	110V	2P+E	C32S152
32A	230V	2P+E	C32S252
32A	400V	3P+E	C42S252

Panel Mounting Switch Interlocked Sockets – IP67

Amps	Volts	Poles	Part No.
16A	110V	2P+E	C31S100
16A	230V	2P+E	C31S200
16A	400V	3P+E	C41S200
16A	400V	3P+N+E	C51S200
32A	110V	2P+E	C32S100
32A	230V	2P+E	C32S200
32A	400V	3P+E	C42S200
32A	400V	3P+N+E	C52S200

Surface – Switched Socket c/w Din Rail – IP44

Amps	Volts	Poles	Part No.
16A	110V	2P+E	C31S110
16A	230V	2P+E	C31S210
16A	400V	3P+E	C41S310
16A	400V	3P+N+E	C51S310
32A	110V	2P+E	C32S110
32A	230V	2P+E	C32S210
32A	400V	3P+E	C42S310
32A	400V	3P+N+E	C52S310

Surface – Switched Socket c/w Din Rail – IP67

Amps	Volts	Poles	Part No.
16A	110V	2P+E	C31S160
16A	230V	2P+E	C31S260
16A	400V	3P+E	C41S360
16A	400V	3P+N+E	C51S360
32A	110V	2P+E	C32S160
32A	230V	2P+E	C32S260
32A	400V	3P+E	C42S360
32A	400V	3P+N+E	C52S360
63A	110V	2P+E	C33S160
63A	230V	2P+E	C33S260
63A	400V	3P+E	C43S260
63A	400V	3P+N+E	C53S360

Surface socket c/w 5 module space for circuit protection IP44 splashproof

Amps	Volts	Poles	Part No.
16A	110V	3	B31S10
16A	230V	3	B31S20
16A	400V	4	B41S30
16A	400V	5	B51S30
32A	110V	3	B32S10
32A	230V	3	B32S20
32A	400V	4	B42S30
32A	400V	5	B52S30

IP67 available on request.

Multiple Socket Outlets

Amps	Volts	Poles	Part No.
16A	230V	2P + E	3K3120E
1 x 16a 3P CEE Plug input and 3 x 16a CEE Socket Outlets –IP44			
16A	230V	2P + E	3K3125E
1 x 16a 3P CEE Plug input and 3 x 16a CEE Socket Outlets – IP67			
16A	230V	2P + E	3K3120E
1 x Cable Gland input and 3 x 16a CEE Socket Outlets - IP44			
16A	230V	2P + E	3K3120E
1 x Cable Gland input and 3 x 16a CEE Socket Outlets - IP67			



Water Protection Cap for Plugs and appliance inlets

Amps	Poles	Part No.
16A	2P + E	VD0163
16A	3P + E	VD0164
16A	4P + E	VD0165
32A	2P + E	VD0323
32A	3P + E	VD0324
32A	4P + E	VD0325
63A	2P + E	VD0633
63A	3P + E	VD0633
63A	4P + E	VD0633
125A	2P + E	VD1253
125A	3P + E	VD1253
125A	4P + E	VD1253

Surface Box to suit above Part No.

1461007

Spare Gasket Part No.

8632316

## Weidmüller Heavy Duty Multipin Plugs and sockets IP55/IP65

**Male Inserts**

Part No.	Description
1200000000	HDC HE 6 FS
1203900000	HDC HE 10 MS
1207500000	HDC HE 16 MS
1215700000	HDC HE 16 MS 17-32
1211100000	HDC HE 24 MS
1220800000	HDC HE 24 MS 25-48

**Female Inserts**

Part No.	Description
1200200000	HDC HE 6 FS
1204100000	HDC HE 10 FS
1207700000	HDC HE 16 FS
1216100000	HDC HE 16 FS 17-32
1211300000	HDC HE 24 FS
1221200000	HDC HE 24 FS 24-48

**Top Entry Hoods**

Part No.	Description
1788120000	HDC 06B TOLU 1M20G
1787620000	HDC 10B TOLU 1M25G
1788230000	HDC 16B TOLU 1M25G
1787860000	HDC 24B TOLU 1M25G
1788450000	HDC 32B TOLU 1M32G
1788350000	HDC 48B TOLU 1M32G

**Side Entry Hoods**

Part No.	Description
1788100000	HDC 06B TSLU 1M20G
1787580000	HDC 10B TSLU 1M25G
1788200000	HDC 16B TSLU 1M25G
1787800000	HDC 24B TSLU 1M25G
1788420000	HDC 32B TSLU 1M32G
1788320000	HDC 48B TSLU 1M32G

**Surface Housings**

Part No.	Description
1900460000	HDC 06B SLU 1M20G
1901620000	HDC 10B SLU 1M20G
1900170000	HDC 16B SLU 1M25G
1901560000	HDC 24B SLU 1M25G
1902670000	HDC 32B SLU 1M32G
1904190000	HDC 48B SLU 1M32G

**Panel Mounting Housings**

Part No.	Description
1202100000	HDC 06B ALU
1206100000	HDC 10B ALU
1209700000	HDC 16B ALU
1213900000	HDC 24B ALU
1219500000	HDC 32B ALU
1295600000	HDC 48B ALU

**Panel Housings with Dust Cover**

Part No.	Description
1202500000	HDC 06B ADLU
1206500000	HDC 10B ADLU
1210100000	HDC 16B ADLU
1214300000	HDC 24B ADLU
1219800000	HDC 32B ADLU
1222900000	HDC 48B ADLU

**Surface Housings with Dust Cover**

Part No.	Description
1900360000	HDC 06B SDLU 1M20G
1901570000	HDC 10B SDLU 1M20G
1415810000	HDC 16B SDLU 1M25G
1901480000	HDC 24B SDLU 1M25G
1902650000	HDC 32B SDLU 1M32G
1904150000	HDC 48B SDLU 1M32G

**Coupling/Connector Hoods**

Part No.	Description
1021330000	HDC 06B KLU 1M25G
1021250000	HDC 10B KLU 1M25G
1788290000	HDC 16B KLU 1M25G
1968740000	HDC 24B KLU 1M25G
1788500000	HDC 32B KLU 1M32G

**Type HSB6 380V 35amp 6 & 12 Pin & Earth, Plug and Socket Inserts**

Part No.	Male Inserts
1498700000	HDC HSB 6 MS 1-6
1498800000	HDC HSB 6 MS 7-12

Part No.	Female Inserts
1498900000	HDC HSB 6 FS 1-6
1499000000	HDC HSB 6 FS 7-12

Use 16+32 pin Hoods & Housings.

**Coding Pin**

For protection against incorrect connection when using several connectors.

Part No.	Description
1203600000	SPB-M 3

**Male Inserts**

Part No.	Description
1498100000	HDC HA 3 MS
1498300000	HDC HA 4 MS

**Female Inserts**

1498200000	HDC HA 3 FS
1498400000	HDC HA 4 FS

**Top Entry Hoods**

Part No.	Description
1788820000	HDC 04A TOLU 1M20G

**Side Entry Hood**

Part No.	Description
1788810000	HDC 04A TWLU 1M20G

**Panel Housing**

Part No.	Description
1497600000	HDC 04A ALU

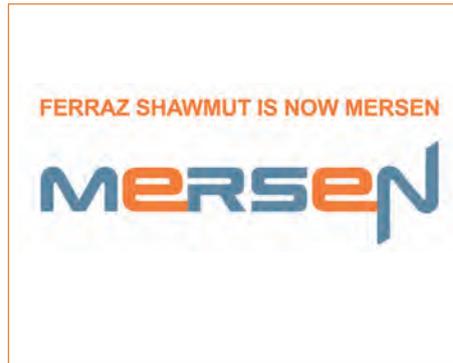
**Surface Housing**

Part No.	Description
1788830000	HDC 04A SLU 1M20G

**Coupling / Connector Hood**

Part No.	Description
1788840000	HDC 04A KOLU 1M20G

## Fuse Range



## Mersen offers you the world's most extensive range of fusegear for general purpose and power electronics protection in industry.

IEC standard, cylindrical or NH blade-style fuses in a range of sizes and all the associated bases, holders disconnectors and switches – especially the brand new Modulostar range of holders and disconnectors for cylindrical fuses; DIN standard, Neozed (DO) and D type fuses and all the associated gear – Linocur, Innozed and Jean Muller Products; BS88 standard fuses for incorporation into switches; and North American UL and CSA standard fuses, including the innovative Smart Spots and the many bases for them.

But also Protistor fuses built to every major international standard, Recticur fuses to meet DIN standards, Amp-Trap fuses built to American standards for power semiconductor protection . . . and a whole gamut of connections including the FSPDB (Finger Safe Power Distribution Blocks).

## Mersen Selection Chart for HRC Fuses/Electrical Motors

Motor Data			Rated Voltage 230V			Rated Voltage 400V			Rated Voltage 690V			
Nom capacity in kW	Power factor cos φ	Efficiency η as %	Motor rated current in A	Fuse rated current in A (gL-gG) DOL-ASD		Motor rated current in A	Fuse rated current in A (gL-gG) DOL-ASD		Fuse rated current in A (am) (highest inertia starting)	Motor rated current in A	Fuse rated current in A (gL-gG) DOL-ASD	
0.25	0.7	62	1.4	2	-	0.8	2	-	2	0.5	0	-
0.37	0.72	64	2.0	4	-	1.2	2	-	2	0.7	0	-
0.55	0.75	69	2.7	4	-	1.5	4	-	4	0.9	0	-
0.75	0.8	74	3.2	6	4	1.8	4	4	4	1.1	0	-
1.1	0.83	77	4.3	10	6	2.5	4	4	4	1.4	2	-
1.5	0.83	78	5.8	10	6	3.3	6	6	6	1.9	4	-
2.2	0.83	81	8.2	20	10	4.7	10	6	6	2.7	6	-
3	0.84	81	11.1	20	16	6.4	16	10	6	3.7	6	-
4	0.84	82	14.6	25	16	8.4	20	10	10	4.9	10	6
5.5	0.85	83	19.6	32	25	11.3	25	16	16	6.5	16	10
7.5	0.86	85	25.8	40	35	14.8	32	16	16	8.6	16	10
11	0.86	87	36.9	50	40	21.2	35	25	25	12.3	20	16
15	0.86	87	50.3	63	63	28.9	40	32	32	16.8	25	20
18.5	0.86	88	61.4	80	63	35.3	50	35	35	20.5	32	25
22	0.87	89	71.3	100	80	41.0	63	50	50	23.8	35	32
30	0.87	90	96.2	125	100	55.3	80	63	63	32.1	40	35
37	0.87	90	118.6	200	125	68.2	100	80	80	39.5	50	40
45	0.88	91	141.1	224	160	81.1	125	100	100	47.0	63	50
55	0.88	91	172.4	250	200	99.1	160	125	100	57.5	80	63
75	0.88	91	235.1	315	250	135.2	200	160	160	78.4	100	80
90	0.88	92	-	-	-	160.4	224	200	160	93.0	125	100
110	0.88	92	-	-	-	196.1	250	224	200	113.7	160	125
132	0.88	92	-	-	-	235.3	300	250	250	136.4	200	160
160	0.88	93	-	-	-	282.2	355	300	315	163.6	224	200
200	0.88	93	-	-	-	352.7	425	355	355	204.5	250	250
250	0.88	93	-	-	-	440.9	500	500	500	255.6	315	315
315	0.88	93	-	-	-	555.5	630	630	630	322.0	400	355
400	0.89	96	-	-	-	675.7	-	-	800	391.7	500	400
500	0.89	96	-	-	-	844.6	-	-	1000	489.7	630	500

**Notes: Basic conditions for NH hrc fuses in utilisation category gG to Din VDE Standard 0636 Part 21.**

The indicated motor rated currents are for enclosed ventilated and fan-cooled three-phase machines in four-pole design (1500 rpm)

**Direct starting:** mean starting current maximum 6 \* motor rated current, starting time maximum 5 seconds.

**Star/delta:** mean starting current maximum 2 \* motor rated current, starting time maximum 15 seconds.

It is sufficient to base choice of fuse for slipping motors and squirrel-cage motors with star/delta starting ( $\tan < 15 \text{ sec.}, I_{\text{an}} = 2^*I_n$ ) on the rated current of the motor.

Fuses with higher rated currents are to be used at higher rated currents, starting currents and/or longer starting times.

The installation specifications for the overload protection of cables and lines are to be observed (DIN VDE 0100 Part 430).

**Basic conditions for NH hrc fuses in utilisation category aM to DIN VDE Standard 0636 Part 22.**

aM fuses can be used when starting currents are higher and/or starting times are longer (highest-inertia starting).

The matchings given in the table are for star/delta starting with:

starting current maximum 4 \* motor rated current, starting time maximum 60 seconds

starting time maximum 60 seconds.

peak current maximum 8 \* motor rated current, time < 5 seconds

The technical characteristics of switching devices (contactors) can be fully utilised when fitting aM fuses.

**NB: When fitting aM fuses, it is essential to ensure sufficient overload protection by providing other protective devices (motor protective relays). An aM fuse protects only against short circuits.**

Required matching conditions: fuse rated current = motor rated current. 660V fuses can be used without problem in 690V networks, provided an upper voltage tolerance of maximum + 5% can be guaranteed on line side, since these fuses are tested at +10%.

If motor specifications are otherwise,  $I_n = P / (1.7321 * n * U_n * \cos \phi)$ . [I = current; U = Voltage]

# IEC Non-Fusible Disconnect Switches

## IEC Disconnect Switches – Front Operated



M163



M163DM



M633



M633DM



M100U3 - M125E3

### Switch Body

Ampere Rating	16	25	40	63	80	100	125
Base Cat #	M163	M253	M403	M633	M803	M100U3	M125E3
Door-mounted version	M163DM	M253DM	M403DM	M633DM	M803DM	M100U3DM	

### Handles and Shafts



Direct Front Operation Locking Handle							
	HD40	HD40	HD40	HD125	HD125	HD125	HD125

External Front Operation							
Selector Style	IP65, NEMA 1, 3R, 12	HSBX	HSBX	HSBX	HSBX	HSBX	HSBX
Shaft Lengths: 85, 130, 180, 250 Ex. SA130		SA__	SA__	SA__	SA__	SA__	SA__
Door mounted version (no shaft required)		HSBPDM	HSBPDM	HSBPDM	HSBWDM	HSBWDM	HSBWDM
Pistol Style	IP65, NEMA 1, 3R, 12	HB45	HB45	HB45	HB45	HB45	HB45
	NEMA Type 4, 4X	HB45X	HB45X	HB45X	HB45X	HB45X	HB45X
Shaft Lengths: 210, 290 Ex. SPA210		SPA__	SPA__	SPA__	SPA__	SPA__	SPA__

B=Black. Substitute 'R' for 'B' if a red handle is desired. Ex. HR65

### Accessories



Fourth Poles							
Limited to one additional pole per switch	4P40	4P40	4P40	4P80	4P80	4P125	4P125

Neutral Poles							
Limited to one additional pole per switch	NP40	NP40	NP40	NP80	NP80	NP125	NP125

Terminal Shrouds							
3-pole, 1 terminal shroud for 3 poles	TS40-3	TS40-3	TS40-3	TS63-3	TS63-3	TS125-3	TS125-3
1 to 4-poles, 1 terminal shroud per pole	TS40-1	TS40-1	TS40-1	TS63-1	TS63-1	TS125-1	TS125-1

Auxiliary Contacts							
NC left or right side mounting	OA1G01						
NO left or right side mounting	OA1G10						
NO+NC (Mounting on either side)	OA2G11						

# IEC Non-Fusible Disconnect Switches

## IEC Front and Side Operated



M200E30S



M630E03

### Switch Body

Ampere Rating	200	250	315	400	630	800
Base Cat #	M200E	M250E	M315E	M400E	M630E	M800E
3-pole	03, 30S					

### Handles and Shafts



HD250



HB65

Direct Front Operation Locking Handle						
	HD250	HD250	HD400	HD400	HD800	HD800

External Front Operation						
Pistol Style NEMA 1, 3R, 12	HB65/HB80	HB65/HB80	HB125	HB125	HB125	HB125
NEMA 4, 4X	HB65X/HB80X	HB65X/HB80X	HB125X	HB125X	HB125X	HB125X
Pistol Type, right side operation	HB65S	HB65S	HB145S	HB145S	HB145S	HB145S
Shaft—Lengths 210, 290, 360, 430 Ex. SPA210	SPA__	SPA__	SFB__	SFB__	SFB__	SFB__
Shaft—Lengths 280, 325, 395 Ex. SFB325						

B = Black. Substitute "R" for "B" if red handle is desired. Ex. HR80.

Fourth Poles						
	4P250	4P250	4P400	4P400	4P800	4P800

Neutral Poles						
	NP250	NP250	NP400	NP400	NP800	NP800

Terminal Shrouds						
Kit for 3 poles	TS250-13	TS250-13	TS400-13	TS400-13	TS800-13	TS800-13
Kit for 4 poles	TS250-14	TS250-14	TS400-14	TS400-14	TS800-14	TS800-14

Shorter terminal shrouds versions are also available if desired. Ex. TS250S-13 for switches up to 250A

Auxiliary Contacts						
Normally Open	OA1G10	OA1G10	OA1G10	OA1G10	OA1G10	OA1G10
Normally Closed	OA3G01	OA3G01	OA3G01	OA3G01	OA3G01	OA3G01
Module for SF aux. contacts	OEA28	OEA28	OEA28	OEA28	OEA28	OEA28

Also available up to 4,000 amps.

### Accessories



4P40

4P80

4P125



4P250

TS250-1



OA1G10

OA1G01

OEA28

# IEC Fusible Disconnect Switches

## Front and Side Operated



**M25F30S**  
25A, F fused, with 3 poles on left side of handle, side operated



**M63D03**  
63A, D fused, with 3 poles on right side of handle

## Switch Body

Ampere Rating	25	50	125	63	160	200	250
Base Cat #	M25	M50	M125	M63	M160	M200	M250
Fuse Type	F	F	F	D	D	D	D
3-pole Configuration	12, 30S	03, 30S					
Fuse Size	10x38	14x51	22x58	000	00	0	0-1

## Handles



Switch Body Ampere Rating	25	50	125	63	160	200	250
<b>Fourth Pole</b>							
Fusible Fourth Pole						4PD200	4PD250

Direct Front Operation							
	HDF30	HDF200	HDF200	HDF200	HDF200	HDF250T	HDF250T

External Front Operation - Pistol Style							
NEMA Type 1, 3R, 12, IP65	HB45/65	HB45/65	HB65	HB65	HB65	HB65	HB65
NEMA Type 4, 4X	HB45X	HB45X	HB65X	HB65X	HB65X	HB65X	HB65X

B=Black. Substitute 'R' for 'B' if a red handle is desired. Ex. HR45

## Shafts

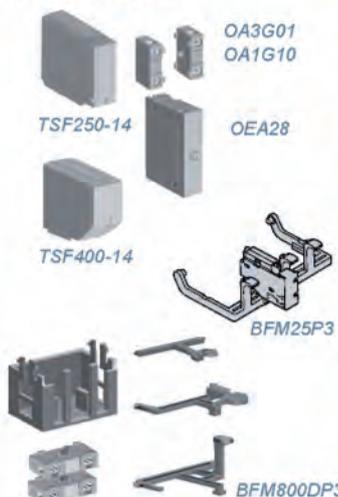


External Right-Side Operation - Pistol Style							
NEMA 1, 3R, IP65	HB65S						

Shafts							
	SPA__						

Lengths: 210, 290, 360, 430 Ex. SPA210

## Accessories



Terminal Shrouds							
3-pole			TSF160-13		TSF160-13	TSF200-13	TSF250-13
4-pole			TSF160-14		TSF160-14	TSF200-14	TSF250-14

Auxiliary Contacts							
NO, use with OSZ4	OA1G10	OA1G10	OA1G10	OA1G10	OA1G10	OA1G10	OA1G10
NC, use with OSZ4	OA3G01	OA3G01	OA3G01	OA3G01	OA3G01	OA3G01	OA3G01
NO, between poles	OA4B1C						
Mounting plate OA1G10/OA3G01	OSZ4	Not needed					
Module for 8 aux. contacts	OEA28	OEA28	OEA28	OEA28	OEA28	OEA28	OEA28

Blown fuse indicators (DPMM), Striker type fuse needed							
Kit 3 poles 1 contact	BFM25FP3						
Kit 3poles 3 contacts		BFM50FP3	BFM125FP3				
Kit 3poles 3NO+NC							BFM800DP3

# IEC Fusible Disconnect Switches

## Front and Side Operated



**M400D03S**  
400A, DIN fused, 3 poles on left side of handle



**M800D03**  
800A, DIN fused, with 3 poles on right side of handle



**M1250D03**  
1250A, DIN fused, with 3 poles on the right side of handle

## Switch Body

Ampere Rating	400	630	800	1250
Base Cat #	M400	M630	M800	M1250
Fuse Type	D	D	D	D
3-pole Configuration	03, 30S	03, 30S	03, 30S	03
Fuse Size	0-2	3	3	4

Fourth Pole				
Fusible Fourth Pole	4PD400	4PD800	4PD800	4PD1250

Direct Front Operation				
	HDF400T	HDF800T	HDF800T	HDF1250T

External Front Operation - Pistol Style				
NEMA Type 1, 3R, 12, IP65	HB95	HB145	HB274	HB274
NEMA Type 4, 4X	HB95X	HB145X	HB274X	HB274X

B = Black. Substitute "R" for "B" if a red handle is desired. Ex. HR95.

External Right-Side Operation - Pistol Style				
NEMA Type 1, 3R, 12, IP65	HB145S	HB145S	HB145S	HB145S

Shafts				
Shaft	SFB__	SFB__	SFB__	SFB__

Lengths: 280, 325, 395mm Ex. SFB280

Terminal Shrouds				
3-pole	TSF400-13	TSF800-13	TSF800-13	TSF1250-13
4-pole	TSF400-14	TSF800-14	TSF800-14	TSF1250-14

Auxiliary Contacts				
Normally open	OA1G10	OA1G10	OA1G10	OA1G10
Normally closed	OA3G01	OA3G01	OA3G01	OA3G01
Module for 8 aux. contacts	OEA28	OEA28	OEA28	OEA28

Blown fuse indicators (DPMM), Striker type fuse needed				
Kit 3poles 3NO+NC	BFM800DP3	BFM800DP3	BFM800DP3	

## Handles



HB125



HDF400

## Shafts



SFB135

## Accessories



OA1G01  
OA1G10



OEA28



TSF400-14



BFM800DP3

# PV-Rated Disconnect Switches

## IEC and UL 98-Rated DC Switches

Mersen offers a range of DC disconnect switches especially designed for PV applications, in 2 poles and 2x2 poles configurations for double circuit applications. The technology inside the switch and the visible contacts allow a quick, safe, and reliable DC breaking power at all current levels up to 1000VDC. With a symmetric 2-pole design, the product is ready and simple to install independently of the polarity, with very limited power losses, and with a smaller footprint than competition.

### Highlights:

- IEC version and UL version
- Visible contacts
- Compact footprint
- Direct installation for floating polarity configuration
- Jumper bar available for grounded configuration

### Applications:

- Medium and large power photovoltaic installations up to 1000VDC
- "Make and break" on load and provide safety isolation at string combiner box level



### Ratings:

- Volts** : 1000VDC
- Amps** : IEC: 100 to 500A  
UL98: 100 to 400A
- SCCR** : 5 to 10kA for higher ratings

## Catalog Number Designation

		MD	100	E	1	1		
Switch	M = Mersen AC Switch MD = Mersen DC Switch							
Ampacity	16 to 1200							
Type	Blank = non-fused UL508 U = non-fused UL98 J = J fused F = NFC fused			E = IEC non-fused CC = CC fused D = DIN fused B = BS-88 fused				
Number of Poles/Left side of Handle	AC: 0, 1, 2, 3, 3N, 4, etc. (N = neutral) DC: 0, 1, 2, 3, 4							
Number of Poles/Right side of Handle	AC: Blank = < 200A non-fused, 0, 1, 2, 3, 3N, 4, etc. (N = neutral) DC: Blank = < 100A, 0, 1, 2, 3, 4							
Revision	Blank = 0							
Special Configurations	S = side-operated CH = Changeover							
								DM = door-mounting N = Non-fused switched Neutral

### Approvals:

- UL98B File #E466972 WHVA
- IEC 60947-3 CE

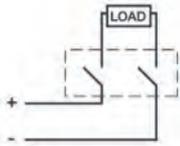


# PV-Rated Disconnect Switches

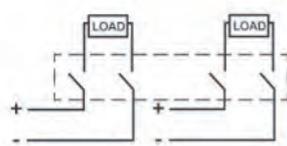
## IEC-Rated DC Switches



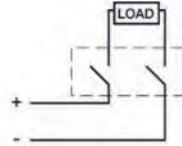
MD100E11



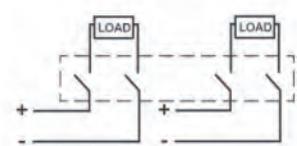
MD100E22



MD400E11



MD400E22



### Switch Body

Ampere Rating	100	160	200	250	315	400	500
2-pole Configuration	MD100E11	MD160E11	MD200E11	MD250E11	MD315E11	MD400E11	MD500E11
2x2-pole Configuration	MD100E22	MD160E22	MD200E22	MD250E22	MD315E22	MD400E22	MD500E22

### Handles and Shafts



HDD250



HB65

Direct Front Operation							
	HDD250	HDD250	HDD250	HDD250	HDD400	HDD400	HDD400

External Pistol Style							
NEMA Type 1, 3R, 12	HB65	HB65	HB65	HB65	HB125	HB125	HB125
NEMA Type 4, 4X	HB65X	HP65X	HB65X	HB65X	HB125X	HB125X	HB125X

B=Black. Substitute 'R' for 'B' if a red handle is desired. Ex. HR65

Shafts							
Shaft	SPA__	SPA__	SPA__	SPA__	SFB__	SFB__	SFB__

SPA Lengths: 130, 210, 290, 360, 430 Ex. SPA130. SFB Lengths: 280, 325, 395 Ex. SFB280

### Accessories



OA1G01  
OA1G10



OEA28



JUMP250



JUMP500



JC250



JC500



TDS250S



TS250



TDS400

Terminal Shrouds							
Kit of 4 Terminal Shrouds	TS250-14	TS250-14	TS250-14	TS250-14			
1 Terminal Shroud					TDS400	TDS400	TDS400

A shorter version is available for DC switches up to 250A. 1 piece per package: TDS250S

Auxiliary Contacts							
NO Right side mounting	OA1G10						
NC left side mounting	OA3G01						
Module for SF aux. contacts	OEA28						

Short Circuit Link							
	JUMP250	JUMP250	JUMP250	JUMP250	JUMP500	JUMP500	JUMP500

Terminal Shroud for Short Circuit Link							
	JC250	JC250	JC250	JC250	JC500	JC500	JC500

Also available 1,000 VDC up to 1,500 amps.

Neozed Fuses and Accessories



Fuses – D01, 2 & 3

Size/Amps	Pack	Part No.
2	10	1700.002
4	10	1700.004
6	10	1700.006
10	10	1700.010
16	10	1700.016
20	10	1701.020
25	10	1701.025
35	10	1701.035
50	10	1701.050
63	10	1701.063
80	10	1702.080
100	10	1702.100

Gauge Rings – D01

Size/Amps	Pack	Part No.
2	50	1705.002
4	50	1705.004
6	50	1705.006
10	50	1705.010

Gauge Rings – D02

Size/Amps	Pack	Part No.
2	50	1706.002
4	50	1706.004
6	50	1706.006
10	50	1706.010
16	50	1706.016
20	50	1706.020
25	50	1706.025
35	50	1706.035
50	50	1706.050

Neozed Fuse Bases 380V



Din Rail Mounting Single Pole Base/Amps Terminal

Description	Part No.	Pack	
D01 – 16	Clamp	1720.17	20
D02 – 63	Twin Screw	1721.27	20
D02 – 63		1721.47	20
D03 – 100		1722.47	20

Din Rail Triple Pole

D02 – 63	Twin Screw	1731.272	5
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Surface Mounting Single Pole

D01 – 16	Clamp	1720.13	20
D02 – 63	Twin Screw	1721.23	20

Din Rail Mounting Single Pole

D01 – 16	Clamp	1720.18	20
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Gauge Rings – D03

Size/Amps	Pack	Part No.
80	25	1707.080

Neozed Plastic Screw Cap for Linocur and Linozed 16A, 63A & 100A

Size/Amps	Pack	Part No.
D01 16 amp	20	1710.0002
D02 63 amp	20	1711.0002
D01 – 16	20	1714.0002

D02 Cap for

NEOZED Switchfuse	20	1715.0002
D03 100 amp	10	1712.0002

Adaptors (for fuse cap)

Size/Amps	Pack	Part No.
D02 – D01	50	1713
D03 – D02	10	1709

Adaptors (for fuse base)

Size/Amps	Pack	Part No.
D03 – D02	10	1707

Gauge Ring Tool

Pack	Part No.
1	1708



Neozed Switch Fuses and Fuse Bases (Matching)



D02 Linocur Switch Fuse for Din 35mm Rails

Amps	Pole	Part No.	17.5mm Module	Pack
up to 63	1	5861.063	1.5	3
up to 63	2	5862.063	3	2
up to 63	3	5863.063	4.5	1

1 Phase Insulated Busbar for Linocur D02 and Linozed D01 & D02

1Mtr (36x1P)	10	1792.16
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2 Phase Insulated Busbar for Linocur D02 and Linozed D01 & D02

1Mtr (18x2P)	10	2949.16
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3 Phase Insulated Busbar for Linocur D02 and Linozed D01 & D02

1Mtr (12xTP)	16	1797.16
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D01/D02 Linozed Fuse Base for Din 35mm Rails

Base	Amps	Part No.	Poles	Pack
D01	2 – 16	1724	1	6
D02	20 – 63	1725	1	6
D01	2 – 16	1734	3	2
D02	20 – 63	1735	3	2

Neozed Plastic Screw Cap for Linocur and Linozed 16A and 63A Base/Amps Terminal

Description	Part No.	Pack
D01 – 16	1714.0002	20
D02 – 63	1715.0002	20

with testing hole.

NH Type Plastic Fuse bases



Single Pole – Screw Terminals

Size	Amps	Part No.	Pack
NH00	160	41002	3
NH0	160	41202	3
NH1	250	41402	3
NH2	400	41502	3
NH3	630	41602	3

Single Pole – Clamp Terminals

Size	Amps	Part No.	Pack
NH00	160	41102	3

Triple Pole – Screw Terminals – c/w partition walls

Size	Amps	Part No.	Pack
NH00	160	41016	1

Triple Pole – Clamp Terminals – c/w partition walls

Size	Amps	Part No.	Pack
NH00	160	41114	1

Din Rail Mounting Single Pole

Size	Amps	Pack
NH00	160 Screw Terminals	42002
NH00	160 Clamp Terminals	42102

Din Rail Mounting Triple Pole – c/w partition walls

Size	Amps	Pack
NH00	160 Screw Terminals	42016
NH00	160	42114

NH Fuse Accessories



Terminal Covers

Size	Part No.	Pack
NH00	44702	6
NH0	44704	6
NH1	44708	6
NH2	44710	6
NH3	44712	6

Partition Walls

Size	Part No.	Pack
NH00	44502	1
NH0	44504	2
NH1/2	44510	2
NH3	44512	2



Fuse Covers

Size	Part No.	Pack
NH00	44802	3
NH1/2	44810	3
NH3	44812	3



Coupling piece

Size	Part No.	Pack
NH0	44604	2
NH1/2	44610	2
NH3	44612	2

NH Fuse Extractor Handle

Size	Part No.	Pack
NH00 – 4	8022	5



Neutral Blades

Size	Part No.	Pack
NH00 125	8009.00008	3
NH1 250	8011.00008	5
NH2 400	8012.00008	5
NH3 630	8013.00008	5

Cosmo 60mm Busbar System



Busbar Support

Description	Part No.	Pack
One pole	G1410000	10
Three pole	G1430001	10

Side Cover

Description	Part No.	Pack
Three pole	G8431001	10

Busbar Cover

Description	Part No.	Pack
Three pole	G8432006	50

Neutral Link

Description	Part No.	Pack
NH0 Neutral base, disconnect type	44904	6
NH1 – 2 Neutral base, disconnect type	44908	3

Mersen Type Multifix – Fuse Switch–Disconnectors and Accessories



Surface Mounting – Single Pole

Size	Rated Current	Part No.	Pack
0	160 amps	F229292A	1
1	250 amps	Q229876A	1
3	630 amps	T3911013	1

Surface Mounting – Triple Pole

Size	Rated Current	Part No.	Pack
0	160 amps	P1023007A	1
1	250 amps	S22987A	1
2	400 amps	W1002129A	1
3	630 amps	C1002135A	1

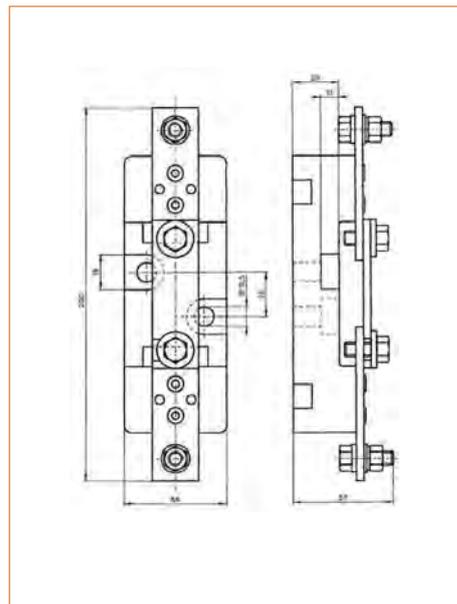
Sealing Kit

Description	Part No.	Pack
Size 2	Y3000156	1

Neutral Disconnectable Bases



Part No.	NH Din Size	Type of connection	Current Rating (A)	Pack
BBO0NDISCON	00	clamp	160	10
BBO0NB	00	bolt	160	10
BB0NDICON	0	bolt	250	10
BB1-2NDICON	1-2	bolt	500	3
BB3NDISCON	3	bolt	800	3



LV HRC NH Type Fuse Links ~ 500V for line protection (class gG)



NH00			NH1		
Amps	Pack	Part No.	Amps	Pack	Part No.
2	9	1B613	16	3	1B135
4	9	1B619	20	3	1B137
6	9	1B623	25	3	1B139
10	9	1B631	32	3	1B143
16	9	1B635	35	3	1B145
20	9	1B637	40	3	1B147
25	9	1B639	50	3	1B151
32	9	1B643	63	3	1B155
35	9	1B645	80	3	1B159
40	9	1B647	100	3	1B163
50	9	1B651	125	3	1B165
63	9	1B655	160	3	1B169
80	9	1B659	200	3	1B171
100	9	1B663	250	3	1B175
125	3	1B765			
160	3	1B769			



NH2		
Amps	Pack	Part No.
35	1	1B245
50	1	1B251
63	1	1B255
80	1	1B259
100	1	1B263
125	1	1B265
160	1	1B269
200	1	1B271
250	1	1B275
300	1	1B277
315	1	1B279
355	1	1B281
400	1	1B283

NH0		
Amps	Pack	Part No.
6	3	1B023
10	3	1B031
16	3	1B035
20	3	1B037
25	3	1B039
32	3	1B043
35	3	1B045
40	3	1B047
50	3	1B051
63	3	1B055
80	3	1B059
100	3	1B063
125	3	1B065
160	3	1B069



NH3		
Amps	Pack	Part No.
315	1	1B379
400	1	1B383
425	1	1B385
500	1	1B387
630	1	1B389
800	1	1B391

NH4		
Amps	Pack	Part No.
500	1	8004.5007
630	1	8004.6307
800	1	8004.8007
1000	1	8004.1007
1250	1	8004.1257

D Fuse System



NDZ Fuses E16 ~ 500V gG

Amps	Pack	Part No.
2	25	594.002
4	25	594.004
6	25	594.006
10	25	594.01
16	25	594.016
20	25	594.02
25	25	594.025

DZII/III/IV Fuses

Amps	Pack	Part No.
2	25	597.002
4	25	597.004
6	25	597.006
10	25	597.01
16	25	597.016
20	25	597.02
25	25	597.025
35	25	598.035
50	25	598.05
63	25	598.063
80	10	595.08
100	10	595.1

DZII/III/IV Ultra Rapid/Rectifier Fuses

Amps	Pack	Part No.
6	25	597.0068
10	25	597.0108
16	25	597.0168
20	25	597.0208
25	25	597.0258
35	25	598.0358
50	25	598.0508
63	25	598.0638
80	25	595.0808
100	25	595.1008

DZ Fuse Caps

Amps	Pack	Part No.
25	20	690 DZII
63	20	691 DZIII

DZII/III Gauge Ring Tools

Pack	Part No.
10	61

DZII/III/IV Fuse Unit

Bakelite (Surface Mounting) Less Fuse caps

Amps	Description	Pack	Part No.
25	DZ11	10	199.6

Adaptors (Fuse Liners)

Description	Pack	Part No.
DZ3 to DZ2	48	581



DZII/III Gauge Rings

Amps	Pack	Part No.
2	25	1657.002
4	25	1657.004
6	25	1657.006
10	25	1657.01
16	25	1657.016
20	25	1657.02
25	25	1657.025
35	25	1658.035
50	25	1658.05
63	25	1658.063

Sursum Automats (E27)

"L" Type – Line Protection

Amps	Pack	Part No.
6	10	SPL6.0
10	10	SPL10
16	10	SPL16
20	10	SPL20
25	10	SPL25

"K" Type – for Power Circuits – Motors – Pumps

Amps	Pack	Part No.
6	10	SPK6.0

Indicator and Non Indicator Fuses



20 x 5mm Non Indicator Type Fuses "Fast Acting"

Rating	Part No.	Pack
125ma	2200.00125	10
250ma	2200.0025	10
315ma	2200.00315	10
500ma	2200.005	10
1.00amp	2200.01	10
1.60amp	2200.016	10
2.00amp	2200.02	10
2.50amp	2200.025	10
3.15amp	2200.0315	10
4.00amp	2200.04	10
5.00amp	2200.05	10
6.30amp	2200.063	10
10.0amp	2200.1	10
16.0amp	2200.16	10

20 x 5mm Non Indicator Type Fuses "Time Lag"

Rating	Part No.	Pack
125ma	2202.00125	10
250ma	2202.0025	10
315ma	2202.00315	10
500ma	2202.005	10
1.00amp	2202.01	10
1.60amp	2202.016	10
2.00amp	2202.02	10
2.50amp	2202.025	10
3.15amp	2202.0315	10
4.00amp	2202.04	10
5.00amp	2202.05	10
6.30amp	2202.063	10
10.0amp	2202.1	10

25 x 5mm Indicator Type Fuses "Medium Time Lag"

Rating	Part No.	Pack
250ma	2261.0025	10
500ma	2261.005	10
1.00amp	2261.01	10
1.25amp	2261.0125	10
2.00amp	2261.02	10
2.50amp	2261.025	10
3.15amp	2261.0315	10
4.00amp	2261.04	10
5.00amp	2261.05	10
6.30amp	2261.063	10
10.0amp	2261.1	10

Other ampages on all of the above fuses available on request.

1" x 1/4" Non Indicator Fuses "Plug Top" Type

Rating	Part No.	Pack
1.00amp	0432400000	10
2.00amp	0245100000	10
3.00amp	0432500000	10
5.00amp	0245200000	10
10.0amp	0245300000	10
13.0amp	0245400000	10

5 way phase and 5 way neutral insulated G70098 – 02

Mersen – BS88 Fuses



415V AC 80kA Breaking Capacity off-set Bolted Tag Type A

Curve	Pack Qty	Part No.
gG	10	NIT 2 Amp
gG	10	NIT 4 Amp
gG	10	NIT 6 Amp
gG	10	NIT 10 Amp
gG	10	NIT 16 Amp
gG	10	NIT 20 Amp
gG	10	NIT 25 Amp
gG	10	NIT 32 Amp
gM	10	NIT 20M25 Amp
gM	10	NIT 20M32 Amp
gG	10	TIA 2 Amp
gG	10	TIA 4 Amp
gG	10	TIA 6 Amp
gG	10	TIA 10 Amp
gG	10	TIA 16 Amp
gG	10	TIA 20 Amp
gG	10	TIA 25 Amp
gG	10	TIA 32 Amp
gM	10	TIA 32M40 Amp
gM	10	TIA 32M50 Amp
gM	10	TIA 32M63 Amp



gG	10	TIS 40 Amp
gG	10	TIS 50 Amp
gG	10	TIS 63 Amp
gG	10	TIS 80 Amp
gG	10	TIS 100 Amp
gM	10	TIS 63M80 Amp
gM	10	TIS 63M100 Amp
gG	5	TCP 32 Amp
gG	5	TCP 40 Amp
gG	5	TCP 50 Amp
gG	5	TCP 63 Amp
gG	5	TCP 80 Amp
gG	5	TCP 100 Amp
gM	5	TCP 100M125 Amp
gM	5	TCP 100M160 Amp
gM	5	TCP 100M200 Amp

gG	5	TFP 125 Amp
gG	5	TFP 160 Amp
gG	5	TFP 200 Amp
gM	5	TFP 200M250 Amp
gM	5	TFP 200M315 Amp



415V AC 80kA Breaking Capacity off-set Blade Tag Type F

Curve	Pack Qty	Part No.
gG	10	NS 2 Amp
gG	10	NS 4 Amp
gG	10	NS 6 Amp
gG	10	NS 10 Amp
gG	10	NS 16 Amp
gG	10	NS 20 Amp
gG	10	NS 25 Amp
gG	10	NS 32 Amp
gM	10	NS 20M25 Amp
gM	10	NS 20M32 Amp
gG	10	ES 10 Amp
gG	10	ES 16 Amp
gG	10	ES 20 Amp
gG	10	ES 25 Amp
gG	10	ES 32 Amp
gG	10	ES 40 Amp
gG	10	ES 50 Amp
gG	10	ES 63 Amp

Central Bolted tag fuses B & C type available on request

A comprehensive range of semi-conductor American and European type Fuses are available on request

Mersen Modular Fuse Links and Bases



*MSC. 10 – 32A, 660VAC, to suit class CC,  
1 – 1/2" x 13/32" & 10 x 38mm fuse-links*

Poles	Part No.	No. of Modules	Standard pack
1	CMS101	1	12
2	CMS102	2	6
3	CMS103	3	4
N	CMS810N	1	12

*Modular Fuse Links gG*

Size mm x mm	Rated current amp	Part No. w/o Indicator	Rated voltage	Pack size
10 x 38mm	0.5	16009 – G	500V	10
10 x 38mm	1	16011 – G	500V	10
10 x 38mm	2	16013 – G	500V	10
10 x 38mm	4	16019 – G	500V	10
10 x 38mm	6	16023 – G	500V	10
10 x 38mm	10	16031 – G	500V	10
10 x 38mm	12	16033 – G	500V	10
10 x 38mm	16	16035 – G	500V	10
10 x 38mm	20	16037 – G	500V	10
10 x 38mm	25	16039 – G	500V	10
10 x 38mm	32	16043 – G	400V	10

*aM*

Size mm x mm	Rated current amp	Part No. w/o Indicator	Rated voltage	Pack size
10 x 38mm	0.16	16503 – G	500V	10
10 x 38mm	0.25	16507 – G	500V	10
10 x 38mm	0.5	16509 – G	500V	10
10 x 38mm	1	16511 – G	500V	10
10 x 38mm	2	16513 – G	500V	10
10 x 38mm	4	16519 – G	500V	10
10 x 38mm	6	16523 – G	500V	10
10 x 38mm	8	16527 – G	500V	10
10 x 38mm	10	16531 – G	500V	10
10 x 38mm	12	16533 – G	500V	10
10 x 38mm	16	16535 – G	500V	10
10 x 38mm	20	16537 – G	500V	10
10 x 38mm	25	16539 – G	400V	10
10 x 38mm	32	16543 – G	400V	10

*MS. 14 – 50A, 660VAC, to suit 250V class H, K, R & 14 x 51mm fuse-links*

Poles	Part No.	No. of Modules	Standard pack
1	CMS141	1.5	6
2	CMS142	3	3
3	CMS143	4.5	2
N	CMS14N	1.5	6

*Modular Fuse Links gG*

Size mm x mm	Rated current amp	Part No. w/o Indicator	Rated voltage	Pack size
14 x 51mm	2	17013 – G	690V	10
14 x 51mm	4	17019 – G	690V	10
14 x 51mm	6	17023 – G	690V	10
14 x 51mm	8	17027 – G	690V	10
14 x 51mm	10	17031 – G	690V	10
14 x 51mm	12	17033 – G	690V	10
14 x 51mm	16	17035 – G	690V	10
14 x 51mm	20	17037 – G	690V	10
14 x 51mm	25	17039 – G	690V	10
14 x 51mm	32	17043 – G	500V	10
14 x 51mm	40	17047 – G	500V	10
14 x 51mm	50	17051 – G	400V	10

*aM*

Size mm x mm	Rated current amp	Part No. w/o Indicator	Rated voltage	Pack size
14 x 51mm	0.25	17507 – G	690V	10
14 x 51mm	0.5	17509 – G	690V	10
14 x 51mm	1	17511 – G	690V	10
14 x 51mm	2	17513 – G	690V	10
14 x 51mm	4	17519 – G	690V	10
14 x 51mm	6	17523 – G	690V	10
14 x 51mm	8	17527 – G	690V	10
14 x 51mm	10	17531 – G	690V	10
14 x 51mm	12	17533 – G	690V	10
14 x 51mm	16	17535 – G	690V	10
14 x 51mm	20	17537 – G	690V	10
14 x 51mm	25	17539 – G	690V	10
14 x 51mm	32	17543 – G	500V	10
14 x 51mm	40	17547 – G	500V	10
14 x 51mm	45	17549 – G	500V	10
14 x 51mm	50	17551 – G	400V	10

*MS. 22 – 125A, 660VAC, to suit 22 x 58mm fuse-links*

Poles	Part No.	No. of Modules	Standard pack
1	CMS221	2	6
2	CMS222	4	3
3	CMS223	6	2
N	CMS22N	2	6

Max. load for Gg type = 110Amps  
Max. load for aM type = 125Amps

*Modular Fuse Links gG*

Size mm x mm	Rated current amp	Part No. w/o Indicator	Rated voltage	Pack size
22 x 58mm	4	18019 – G	690V	10
22 x 58mm	6	18023 – G	690V	10
22 x 58mm	10	18031 – G	690V	10
22 x 58mm	12	18033 – G	690V	10
22 x 58mm	16	18035 – G	690V	10
22 x 58mm	20	18037 – G	690V	10
22 x 58mm	25	18039 – G	690V	10
22 x 58mm	32	18043 – G	690V	10
22 x 58mm	40	18047 – G	690V	10
22 x 58mm	50	18051 – G	690V	10
22 x 58mm	63	18055 – G	690V	10
22 x 58mm	80	18059 – G	690V	10
22 x 58mm	100	18063 – G	500V	10
22 x 58mm	125	18065 – G	400V	10

*aM*

Size mm x mm	Rated current amp	Part No. w/o Indicator	Rated voltage	Pack size
22 x 58mm	4	18519 – G	690V	10
22 x 58mm	6	18523 – G	690V	10
22 x 58mm	8	18527 – G	690V	10
22 x 58mm	10	18531 – G	690V	10
22 x 58mm	12	18533 – G	690V	10
22 x 58mm	16	18535 – G	690V	10
22 x 58mm	20	18537 – G	690V	10
22 x 58mm	25	18539 – G	690V	10
22 x 58mm	32	18543 – G	690V	10
22 x 58mm	40	18547 – G	690V	10
22 x 58mm	50	18551 – G	690V	10
22 x 58mm	63	18555 – G	690V	10
22 x 58mm	80	18559 – G	690V	10
22 x 58mm	100	18563 – G	500V	10
22 x 58mm	125	18565 – G	400V	10

*MSC. 8 – 25A, 400VAC, to suit 8 x 31mm fuse-links*

Poles	Part No.	No. of Modules	Standard pack
1	CMS81	1	12
2	CMS82	2	6
3	CMS83	3	4
N	CMS810N	1	12

*Modular Fuse Links gG*

Size mm x mm	Rated current amp	Part No. w/o Indicator	Rated voltage	Pack size
8 x 31mm	1	15011 – G	400V	10
8 x 31mm	2	15013 – G	400V	10
8 x 31mm	4	15019 – G	400V	10
8 x 31mm	6	15023 – G	400V	10
8 x 31mm	8	15027 – G	400V	10
8 x 31mm	10	15031 – G	400V	10
8 x 31mm	12	15033 – G	400V	10
8 x 31mm	16	15035 – G	400V	10
8 x 31mm	20	15037 – G	400V	10

*aM*

Size mm x mm	Rated current amp	Part No. w/o Indicator	Rated voltage	Pack size
8 x 31mm	1	15511 – G	400V	10
8 x 31mm	2	15513 – G	400V	10
8 x 31mm	4	15519 – G	400V	10
8 x 31mm	6	15523 – G	400V	10
8 x 31mm	8	15527 – G	400V	10
8 x 31mm	10	15531 – G	400V	10

### Surge-Trap Type SPDs

#### STP Type 1+2

##### Description

SPD Type 1 + 2 12.5kA 4-Pole TNS + Micro

##### Part No.

STPT12-12K275V-4PM

STP T12 12.5 is the series of combined Type 1+2/Class I+II devices for discharging lightning currents and protecting against voltage surges, in accordance with EN/IEC 61643. Suitable as the first step of protection in incoming power supply panels and areas with exposure to atmosphere where installations are usually provided with an external lightning protection system.

##### Ratings and features

- Lightning impulse current (10/350  $\mu$ s): 12.5kA per phase
- Maximum discharge current (8/20  $\mu$ s): 50kA per phase
- Nominal discharge current (8/20  $\mu$ s): 20kA per phase
- TNS, TNC, TT and IT Networks
- Un(L-N/L-L): 60V, 120/208V, 230/400V, 277/480V and 400/690V
- Din Rail mountable plug in format
- Visual and remote end of life indicators
- Reversible chassis to allow cable entry from above or below
- Mechanically coded cartridges to avoid cartridge replacement errors.



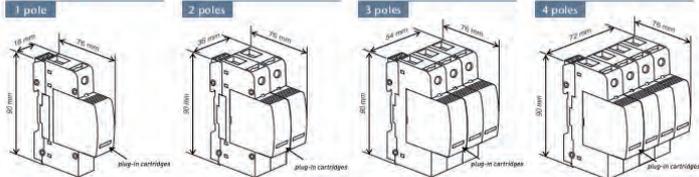
[ep-mercen.com](http://ep-mercen.com)

#### Approvals/Standards

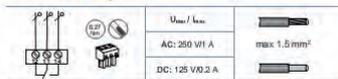
- IEC 61643-1
- CE



##### Dimensions



##### Microswitch diagram



#### STP Type 2

##### Description

SPD Type 2 40kA 4-Pole TNS + Micro

##### Part No.

STPT2-40K275V-4PM

STP T2 40 is the series of combined Type 2/Class II devices for discharging voltage surges in accordance with EN/IEC 61643. Suitable for the second stage of protection in supply distribution panels in which Type 1 protection devices are installed upstream, or for the first stage of protection in commercial or other applications not exposed to direct strikes and with no external lightning protection system.

##### Ratings and features

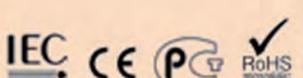
- Maximum discharge current (8/20  $\mu$ s): 40kA per phase
- Nominal discharge current (8/20  $\mu$ s): 20kA per phase
- TNS, TNC, TT and IT Networks
- Un(L-N/L-L): 48V, 60V, 120/208V, 230/400V, 277/480V and 400/690V & higher
- Din Rail mountable, plug in format
- Visual and remote end of life indicators
- Reversible chassis to allow cable entry from above or below
- Mechanically coded cartridges to avoid cartridge replacement errors.
- Multidischarge Technology



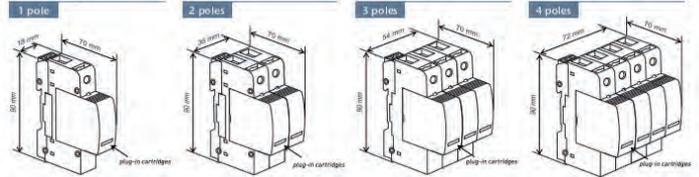
[ep-mercen.com](http://ep-mercen.com)

#### Approvals/Standards

- IEC 61643-1
- CE



##### Dimensions



##### Microswitch diagram





**APPROVED  
DISTRIBUTOR**

## MOFLASH SIGNALLING

is a leading manufacturer of signalling devices for the fire, industrial and explosion-proof markets

Moflash Signalling products, including the famous Klaxon range of hooters and horns, are available exclusively through AP Haslam.

Call us today to discuss your Moflash signalling requirements!

### Popular product areas for Moflash Signalling

- ▲ Beacons
- ▲ Acoustic signals
- ▲ Fire/Security
- ▲ Obstacle marking
- ▲ Hazardous area products



# APHASLAM

Industrial Electrical Equipment Specialists

14 Sunshine Industrial Estate, Crumlin Road, Dublin 12

Tel: +353 (1) 453 2522 | Fax: +353 (1) 453 2949

Email: [sales@aphaslam.ie](mailto:sales@aphaslam.ie)

**MOFLASH**  
SIGNALLING

## Nimbus Panel Luminaire



The Nimbus is a low-profile LED panel. It provides a significant weight and energy saving over a traditional recessed fluorescent.

Key Features:

- Excellent uniformity and colour rendering
- Dimmable (Push to dim)
- Emergency version with battery status/fault condition indicator and automatic self-testing
- Plug & socket connection between panel and driver for easy installation
- 5-year complete system warranty\*



Part No.	LX1NIM05LB57	LX1NIM11LB57
Lamp Type	LED	LED
Dimensions (mm)	150 x 150	300 x 300
Power (W)	13W	17W
Lumen Output	730	1,460
Ambient Temperature	-20°C to 40°C	-20°C to 40°C

Part No.	LX1NIM125LB57	LX1NIM12LB57
Lamp Type	LED	LED
Dimensions (mm)	275 x 600	300 x 600
Power (W)	20W	20W
Lumen Output	2,100	2,100
Ambient Temperature	-20°C to 40°C	-20°C to 40°C

## Petrel Light Fittings



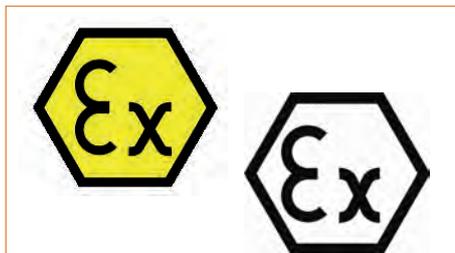
### Petrel Light Fittings – Zone 1

Type	Standard/Emergency	Part No.
2 x 18 Watt	Standard	9218/S2/HF/TW
2 x 36 Watt	Standard	9236/HF/TW
2 x 58 Watt	Standard	9258/HF/TW
2 x 18 Watt	Emergency	9218/S2/EM
2 x 36 Watt	Emergency	9236/S2/EM
2 x 58 Watt	Emergency	9258/S2/EM



### Petrel Light Fittings – Zone 2

Type	Standard/Emergency	Part No.
2 x 18 Watt	Standard	XN/218/HF
2 x 36 Watt	Standard	XN/236/HF
2 x 58 Watt	Standard	XN/258/HF
2 x 18 Watt	Emergency	XN/218/HF/EM
2 x 36 Watt	Emergency	XN/236/HF/EM
2 x 58 Watt	Emergency	XN/236/HF/EM



The ATEX directive consists of two EU directives describing what equipment and work environment is allowed in an environment with an explosive atmosphere. ATEX derives its name from the French title of the 94/9/EC directive: Appareils destinés à être utilisés en Atmosphères Explosives.

## Plugs & Sockets



### Plugs – Ee'x'ed IIC T5/T6

Amps	Volts	Poles	Part No.
16a	110v	2P + E	PRE316PY
16a	230v	2P + E	PRE316PB
16a	400v	3P + E	PRE416PR
16a	400v	3P + N + E	PRE516PR
Amps	Volts	Poles	Part No.
32a	110v	2P + E	PRE332PY
32a	230v	2P + E	PRE332PB
32a	400v	3P + E	PRE432PR
32a	400v	3P + N + E	PRE532PR
63a	400v	3P + E	PRE463PR
63a	400v	4P + E	PRE563PR

### Sockets – Ee'x'ed IIC T5/T6

Amps	Volts	Poles	Part No.
16a	110v	2P + E	PRE316RY
16a	230v	2P + E	PRE316RB
16a	400v	3P + E	PRE416RR
16a	400v	3P + N + E	PRE516RR
Amps	Volts	Poles	Part No.
32a	110v	2P + E	PRE332RY
32a	230v	2P + E	PRE332RB
32a	400v	3P + E	PRE432RR
32a	400v	3P + N + E	PRE532RR
63a	400v	3P + E	PRE463RRU5
63a	400v	4P + E	PRE563RRU5



### Trailing Sockets (Couplers) – Ee'x'ed IIC T5/T6

Amps	Volts	Poles	Part No.
16a	110v	2P + E	PRE316MY
16a	230v	2P + E	PRE316MB
16a	400v	3P + E	PRE416MR
16a	400v	3P + N + E	PRE516MR
Amps	Volts	Poles	Part No.
32a	110v	2P + E	PRE332MY
32a	230v	2P + E	PRE332MB
32a	400v	3P + E	PRE432MR
32a	400v	3P + N + E	PRE532MR

## Ee'x'e Rated Polyester Terminal Junction Boxes



Description	Part No.
10 x 2.5 & 1 x 4sq. Earth Terminal C/W Earth Continuity Plate 4 x M20 Entries	APX 4 Eexe

Description	Part No.
15 x 2.5 & 1 x 4sq. Earth Terminal C/W Earth Continuity Plate 6 x M20 Entries	APX 6 Eexe

### ExHeat – Hazardous Area Air Warmers



Type: FAW (painted steel) 40 deg C maximum ambient T3 & T4  
Atex Approved.  
Baseefa approved Ee'x'e II version to BS5501 parts 1 & 6.  
EN50014 & EN50019

For operation in Ambients up to +40°C Temperature Class T3

Loading	Voltage	Code	Part No.
250 Watt	240V/1P	9900201	FAW250 (9900201)
500 Watt	240V/1P	9900203	FAW500 (9900203)
750 Watt	240V/1P	9900205	FAW750 (9900205)
1000 Watt	240V/1P	9900207	FAW1000 (9900207)
1500 Watt	240V/1P	9900209	FAW1500 (9900209)
2000 Watt	240V/1P	9900211	FAW2000 (9900211)
2500 Watt	240V/1P	9900213	FAW2500 (9900213)
3000 Watt	240V/1P	9900215	FAW3000 (9900215)

For operation in Ambients up to +40°C Temperature Class T4

Loading	Voltage	Code	Part No.
250 Watt	240V/1P	9900401	FAW250 (9900401)
500 Watt	240V/1P	9900403	FAW500 (9900403)
750 Watt	240V/1P	9900405	FAW750 (9900405)
1000 Watt	240V/1P	9900407	FAW1000 (9900407)
1500 Watt	240V/1P	9900409	FAW1500 (9900409)

#### Accessories

Description	Part No.
Stainless Steel Wall Brackets	Brackets Size 1

### Flameproof Air Thermostats



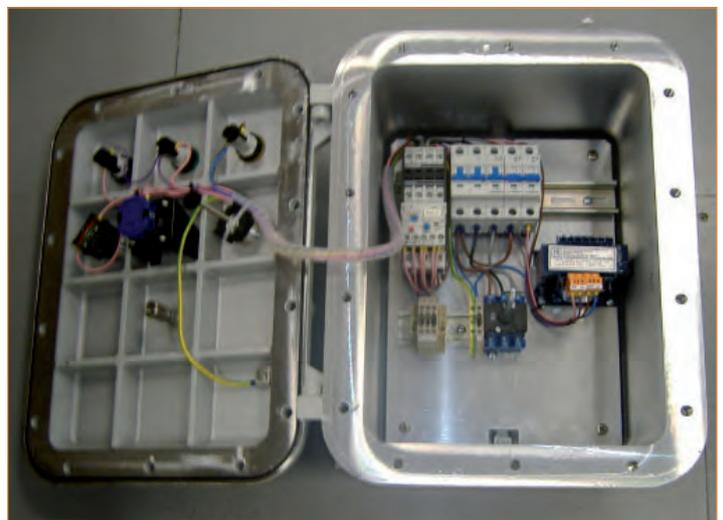
Temperature Range	Part No.
0-40°C	HFT40
0-60°C	HFT60

Type: FWDT (C/W built in stat)

Loading	Voltage	Part No.
500 Watt	240V/1P	FWDT500
1000 Watt	240V/1P	FWDT1000
1500 Watt	240V/1P	FWDT1500
2000 Watt	240V/1P	FWDT2000

### Explosion Proof Control and Instrumentation Panels

Authorised third party assembly service  
Contact our Sales office on 01 453 2522 for further information.



### Terminal Boxes for Intrinsically safe circuit wiring

#### Definition of Simple Apparatus (BS 5345 Part 4)

"Simple electrical apparatus and components may be used in Intrinsically Safe systems without certification, provided that they do not generate or store more than

- 1.2 Volts
- 0.1 Amps
- 20 Microjoules
- 25 milliwatts

in the IS system or during fault conditions".

Terminal boxes can be considered as Simple Apparatus when used with an Intrinsically Safe System.

Standard industrial terminals and enclosures may be used at the discretion of the Engineer. However there are many Engineers who prefer to use blue coloured terminals for the Intrinsically Safe circuits for identification.

The minimum requirements for terminals are that they withstand 250V r.m.s. and maintain a minimum of 6mm creepage and clearance distance between adjacent poles, also 50mm creepage and clearance between IS and non IS circuits. (This is permitted in an enclosure under certain specified conditions).

The specified Ingress protection for IS enclosures is IP20, but for outdoor hostile environmental conditions IP66 is recommended. It is always advisable to identify 'Intrinsically Safe Circuit' terminal boxes with an external label, e.g. 'Intrinsically Safe Circuits'.

When selecting IS terminal boxes, consideration should be given to the termination of spare cores by shorting them out in the Hazardous Area, also the bonding of conductor screens and earthing of cable armouring or metallic braiding.

**Hazardous Area Light Fittings**



**Technor Light Fittings - Zone 2 and 22**

Type	Standard/Emergency	Part No.
2 x 18 Watt	Standard	G2X218/HF
2 x 36 Watt	Standard	G2X236/HF
2 x 58 Watt	Standard	G2X258/HF
2 x 18 Watt	Emergency	G2X218/EM/HF
2 x 36 Watt	Emergency	G2X236/EM/HF
2 x 58 Watt	Emergency	G2X258/EM/HF



**Vyrtych Light Fittings - Zone 2 & 22**

Type	Type	Part No.
1 x 9 Watt	Non Maintained Bulkhead	Baset
1 x 9 Watt	Maintained Bulkhead	Multibaset



**Raytec LED Light Fittings Zone 1**

Type	Standard/Emergency	Part No.
34 Watt LED	Standard - 772mm Long	SPX-WL84-EXE
68 Watt LED	Standard - 1200mm Long	SPX-WL168-1200
68 Watt LED	Standard - 1500mm Long	SPX-WL168-1500
34 Watt LED	Emergency - 772mm Long	SPX-WL84-EXE EM
68 Watt LED	Emergency - 1200mm Long	SPX-WL168-1200 EM

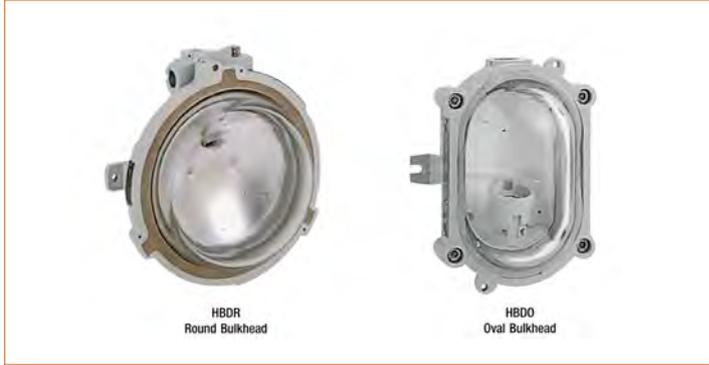
**Raytec LED Bulkhead Luminaires - Zone 1**

Type	Standard/Emergency	Part No.
24 Watt LED	Standard	SPX-BL24 10/10
24 Watt LED	Standard	SPX-BL24 50/50
24 Watt LED	Emergency	SPX-BL24 10/10 EM
24 Watt LED	Emergency	SPX-BL24 50/50 EM

**Raytec LED Light Fittings Zone 2**

Type	Standard/Emergency	Part No.
34 Watt LED	Standard - 772mm Long	SPZ-WL84-EXE
68 Watt LED	Standard - 1200mm Long	SPZ-WL168-1200
68 Watt LED	Standard - 1500mm Long	SPZ-WL168-1500
34 Watt LED	Emergency - 772mm Long	SPZ-WL84-EXE EM
68 Watt LED	Emergency - 1200mm Long	SPZ-WL168-1200 EM

**Lighting: Incandescent & HID Lighting**



**HBD Series: Bulkhead – Flameproof**

**HBDR Series:**

Zone 1 & 2 – 21 & 22	ATEX	II 2 GD	IEC	CE
Ex d IIC	T6 to T3	Ex tD A21	T60°C to T149°C	IP66 – IK08

**Applications:**

For illumination of: • Stairways • Small areas • Emergency exit

**Features:**

- Lamps (not supplied) – Incandescent 200 W maximum
- Compact Fluorescent 23 W maximum – Mixed 160 W maximum
- E27 lampholder.
- Threaded flameproof joint.
- Operates on ceiling and wall.
- Fixing by two integrated brackets.
- Connection to lampholder via two terminals 2.5 mm2.
- Internal earth two terminals 2.5 mm2.
- External earth one 4 mm2.
- 3 x M20 threaded entries in "T" formation.
- Supplied with two blanking plugs M20.

**Standard Materials:**

- Gray painted aluminum body and bezel.
- Sealed toughened lamp glass.

**Standard Materials of Accessories:**

- Zinc plated steel protective guard.

**HBDO Series:**

Zone 1 & 2 – 21 & 22	ATEX	II 2 GD	CEI	CE
Ex d IIB	T6 or T4	Ex tD A21	T76°C to T119°C	IP66 – IK08

**Applications:**

For illumination of: • Stairways • Small areas • Emergency exit

**Features:**

- Lamps (not supplied): – Incandescent 60 W to 100 W maximum
- Compact fluorescent 15 W maximum
- E27 lampholder.
- Operates in any position.
- Fixing by two integrated brackets.
- For incandescent 60 W & 100 W a high temperature cable 106°C is required.
- Connection to lampholder via two terminals 2.5 mm2.
- Internal earth two terminals 2.5 mm2.
- External earth one 4 mm2.
- 2 x M20 threaded entries through feed.
- Supplied with one blanking plug M20.

**Standard Materials:**

- Gray painted aluminum body and bezel.
- Sealed toughened lamp glass.

**Standard Materials of Accessories:**

- Zinc plated steel protective guard.

**Lamp Type and Power:**

Incandescent	Compact Fluorescent	Mixed
60 W to 200 W	7 W to 23 W	160 W

**Operating Temperature:**

HBDR: -40°C to +55°C  
HBDO: -20°C to +40°C

Raytec Product Range

# SPARTAN FLOOD



SPARTAN Flood is a complete family of hazardous area floodlights. Available in 3 sizes and as standard or emergency variants, SPARTAN delivers the highest performance, most energy efficient, modular and maintenance friendly solution for hazardous environments.

# SPARTAN LINEAR



SPARTAN Linear luminaires are available as standard or emergency variants and are designed for new installations or to retrofit existing fluorescent installations, easily allowing the customer to enjoy all the benefits of LED lighting while making regular lamp changes redundant.

# SPARTAN BULKHEAD



SPARTAN Bulkhead is a compact, low profile luminaire designed for restricted space applications. SPARTAN Bulkhead provides the highest performance and efficiency while maintaining excellent reliability. SPARTAN Bulkhead luminaires are available as standard or emergency variants.

# SPARTAN CRANE



The SPARTAN Crane luminaire is designed specifically for use on Marine/Offshore boom cranes where high performance, high reliability, White-Light illumination is required to ensure the safety of crane operations. SPARTAN Crane luminaires are available as standard or industrial variants.



ATEX and IEC Ex Approved  
Zone 1 and 2  
UL/CSA approved including  
C1D2



American Bureau of Ship-  
ping approval



5 Year Warranty



UK Designed and Manu-  
factured



Available in  
White-Light and Infra-Red



Emergency Variants  
Available

## SPARTAN FLOOD ZONE 1

rayTEC<sup>®</sup>
**SPARTAN  
FLOOD FL24**

**SPARTAN  
FLOOD FL24 Emergency**

**SPARTAN  
FLOOD FL12**

Certification	ATEX and IEC Ex rated for Zone 1&2 Gas and Dust UL/CSA including C1D2	ATEX and IEC Ex rated for Zone 1&2 Gas and Dust UL/CSA including C1D2 (pending)	ATEX and IEC Ex rated for Zone 1&2 Gas and Dust UL/CSA including C1D2
Angles	10°x10° / 35°x10° / 60°x25° / 80°x30° / 120°x50° + 30, 50 and 120° circular options	10°x10° / 35°x10° / 60°x25° / 80°x30° / 120°x50° + 30, 50 and 120° circular options	10°x10° / 35°x10° / 60°x25° / 80°x30° / 120°x50° + 30, 50 and 120° circular options
Input	110-254V 50/60Hz AC only 18-30V AC/DC	110-254V 50/60Hz AC only	110-254V 50/60Hz AC only 18-30V AC/DC
Beam Shape	Elliptical or Circular	Elliptical or Circular	Elliptical or Circular
Beam Angle System	VARIO interchangeable lens system (elliptical) / Fixed (circular)	VARIO interchangeable lens system (elliptical) / Fixed (circular)	VARIO interchangeable lens system (elliptical) / Fixed (circular)
Consumption	68W	71W	34W
LED type	Platinum Elite SMT LEDES	Platinum Elite SMT LEDES	Platinum Elite SMT LEDES
Number of LEDES	24	24	12
Power output (luminous flux)	Up to 5,000 lm – circular beam patterns Up to 4,500 lm – elliptical beam patterns	Up to 5,000 lm – circular beam patterns Up to 4,500 lm – elliptical beam patterns	Up to 2,500 lm – circular beam patterns Up to 2,250 lm – elliptical beam patterns
Wavelength	White-Light (also available in Infra-Red)	White-Light (also available in Infra-Red)	White-Light (also available in Infra-Red)
IP Rating	IP66 and IP67	IP66 and IP67	IP66 and IP67
Temperature Range	-50°C to +55°C (-58°F to 131°F)	-20°C to +55°C (-4°F to 131°F)	-50°C to +55°C (-58°F to 131°F)
Colour Temperature (White-Light)	6,000K +	6,000K +	6,000K +
Colour	Silver/Grey	Silver/Grey	Silver/Grey
Weight	8kg (17.6lbs)	10Kg (22lbs)	5kg (11lbs)
Dimensions	291x247x150mm (11.5x9.7x6")	291x247x215mm (11.5x9.7x8.5")	192 x 206 x 170mm (7.6 x 8.1 x 6.7")
Additional Features	CoolExtrude™ Thermal Management Removable PSU and LED modules Smart access wiring system Photocell (optional) T4, T5 and T6 Variants	CoolExtrude™ Thermal Management Removable PSU and LED modules Smart access wiring system Photocell (optional) T4, T5 and T6 Variants	CoolExtrude™ Thermal Management Removable PSU and LED modules Smart access wiring system Photocell (optional) T4, T5 and T6 Variants
Emergency Battery Back-up			
Battery		Ni/Cd 12V 4.5Ah	
Duration		Up to 2hrs @ 50% power Other options available	
Charge Time		20 hours	
Part Codes			
Circular beam pattern	SPX-FL24-W-1010 / SPX-FL24-W-3030 SPX-FL24-W-5050 / SPX-FL24-W-120120	SPX-FL24-W-1010-EM50 / SPX-FL24-W-3030-EM50 SPX-FL24-W-5050-EM50 / SPX-FL24-W-120120-EM50	SPX-FL12-W-1010 / SPX-FL12-W-3030 SPX-FL12-W-5050 / SPX-FL12-W-120120
Elliptical beam pattern	SPX-FL24-W-3510 / SPX-FL24-W-6025 SPX-FL24-W-8030 / SPX-FL24-W-12050	SPX-FL24-W-3510-EM50 / SPX-FL24-W-6025-EM50 SPX-FL24-W-8030-EM50 / SPX-FL24-W-12050-EM50	SPX-FL12-W-3510 / SPX-FL12-W-6025 SPX-FL12-W-8030 / SPX-FL12-W-12050

SPARTAN LINEAR ZONE 1



	 <b>SPARTAN LINEAR WL168</b>	 <b>SPARTAN LINEAR WL168 Emergency</b>
Certification	ATEX and IECEx rated for Zone 1 Gas and Dust	ATEX and IECEx rated for Zone 1 Gas and Dust
Input	110-254V 50/60Hz AC only 18-30V AC/DC	110-254V 50/60Hz AC only
Beam Angle	120°, Equivalent to 2 x 36W T8 Fluorescent	120°, Equivalent to 2 x 36W T8 Fluorescent
Consumption	68W	71W
LED type	Platinum SMT LEDs	Platinum SMT LEDs
Number of LEDS	168	168
Power output (Luminous Flux)	Up to 5,000 lm, Equivalent to 2 x 36W T8 Fluorescent	Up to 5,000 lm, Equivalent to 2 x 36W T8 Fluorescent
Wavelength	White-Light	White-Light
IP Rating	IP66 and IP67	IP66 and IP67
Temperature Range	-40°C to +60°C (-40°F to +140°F)	-20°C to +60°C (-4°F to +140°F)
Colour Temperature (white-light)	6,000K +	6,000K +
Colour	Silver/Grey	Silver/Grey
Weight	9kg (19.8lbs)	10kg (22lbs)
Dimensions	1292 x 108 x 174mm (50.9 x 4.3 x 6.9")	1407 x 108 x 174mm (53.4 x 4.3 x 6.9")
Additional Features	CoolExtrude™ Thermal Management Removable PSU and LED modules Smart access wiring system Photocell (optional) T4, T5 and T6 Variants (T4 as standard)	CoolExtrude™ Thermal Management Removable PSU and LED modules Smart access wiring system Photocell (optional) T4, T5 and T6 Variants (T4 as standard)

Emergency Battery Back-up

Battery		Ni/Cd 12V
Duration		Up to 3hrs @ 25% power Other options available
Charge Time		20 hours

Part Codes

	SPX-WL168	SPX-WL168-EM25
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WL168-1500 (2x58W) & WL84-1200 (2x36W) variants also available

SPARTAN LINEAR ZONE 2



Certification	ATEX and IECEx rated for Zone 2 Gas and Dust	ATEX and IECEx rated for Zone 2 Gas and Dust
Input	110-254V 50/60Hz AC only 18-30V AC/DC	110-254V 50/60Hz AC only
Beam Angle	120°, Equivalent to 2 x 36W T8 Fluorescent	120°, Equivalent to 2 x 36W T8 Fluorescent
Consumption	68W	71W
LED type	Platinum SMT LEDs	Platinum SMT LEDs
Number of LEDs	168	168
Power output (Luminous Flux)	Up to 5,000 lm, Equivalent to 2 x 36W T8 Fluorescent	Up to 5,000 lm, Equivalent to 2 x 36W T8 Fluorescent
Wavelength	White-Light	White-Light
IP Rating	IP66 and IP67	IP66 and IP67
Temperature Range	-40°C to +60°C (-40°F to +140°F)	-20°C to +60°C (-4°F to +140°F)
Colour Temperature (white-light)	6,000K +	6,000K +
Colour	Dark Grey	Dark Grey
Weight	9kg (19.8lbs)	10kg (22lbs)
Dimensions	1292 x 108 x 174mm (50.9 x 4.3 x 6.9")	1407 x 108 x 174mm (53.4 x 4.3 x 6.9")
Additional Features	CoolExtrude™ Thermal Management Removable PSU and LED modules Smart access wiring system Photocell (optional) T4, T5 and T6 Variants (T4 as standard)	CoolExtrude™ Thermal Management Removable PSU and LED modules Smart access wiring system Photocell (optional) T4, T5 and T6 Variants (T4 as standard)

Emergency Battery Back-up

Battery	Ni/Cd 12V
Duration	Up to 3hrs @ 25% power Other options available
Charge Time	20 hours

Part Codes

	SPZ-WL168	SPZ-WL168-EM25
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SPARTAN BULKHEAD ZONE 1



Certification	ATEX and IEC Ex rated for Zone 1&2 Gas and Dust UL/CSA including C1D2 (pending)	ATEX and IEC Ex rated for Zone 1&2 Gas and Dust UL/CSA including C1D2 (pending)
Angles	10°x10° / 35°x10° / 60°x25° / 80°x30° / 120°x50° + 30, 50 and 120° circular options	10°x10° / 35°x10° / 60°x25° / 80°x30° / 120°x50° + 30, 50 and 120° circular options
Input	110-254V 50/60Hz AC only 18-30V AC/DC	110-254V 50/60Hz AC only
Beam Shape	Elliptical or Circular	Elliptical or Circular
Beam Angle System	VARIO interchangeable lens system (elliptical) / Fixed (circular)	VARIO interchangeable lens system (elliptical) / Fixed (circular)
Consumption	34W	37W
LED type	Platinum Elite SMT LEDs	Platinum Elite SMT LEDs
Number of LEDs	24	24
Power output (luminous flux)	Up to 2,500 lm – circular beam patterns Up to 2,250 lm – elliptical beam patterns	Up to 2,500 lm – circular beam patterns Up to 2,250 lm – elliptical beam patterns
Wavelength	White-Light (also available in Infra-Red)	White-Light (also available in Infra-Red)
IP Rating	IP66 and IP67	IP66 and IP67
Temperature Range	-50°C to +46°C (-58°F to 114°F)	-20°C to +46°C (-4°F to 114°F)
Colour Temperature (White-Light)	6,000K +	6,000K +
Colour	Silver / Grey	Silver / Grey
Weight	5kg (11lbs)	6kg (13.2lbs)
Dimensions	288 x 220x 122mm (11.3 x 8.7 x 4.8")	288 x 220x 122mm (11.3 x 8.7 x 4.8")
Additional Features	CoolExtrude™ Thermal Management Removable PSU and LED modules Smart access wiring system Photocell (optional) T4 and T5 Variants (T4 as standard)	CoolExtrude™ Thermal Management Removable PSU and LED modules Smart access wiring system Photocell (optional) T4 and T5 Variants (T4 as standard)
Emergency Battery Back-up		
Battery		Ni/cd 12V
Duration		Up to 3hrs @ 25% power Other options available
Charge Time		25 hours
Part Codes		
Circular beam pattern	SPX-BL24-W-1010 SPX-BL24-W-3030 SPX-BL24-W-5050 SPX-BL24-W-120120	SPX-BL24-W-1010-EM25 SPX-BL24-W-3030-EM25 SPX-BL24-W-5050-EM25 SPX-BL24-W-120120-EM25
Elliptical beam pattern	SPX-BL24-W-3510 SPX-BL24-W-6025 SPX-BL24-W-8030 SPX-BL24-W-12050	SPX-BL24-W-3510-EM25 SPX-BL24-W-6025-EM25 SPX-BL24-W-8030-EM25 SPX-BL24-W-12050-EM25

SPARTAN CRANE LUMINAIRE ZONE 1



**SPARTAN**  
CRANE LUMINAIRE FL48C

Certification	ATEX and IEC Ex rated for Zone 1 & 2 Gas and Dust UL/CSA including C1D2
Angles	10°x10° / 35°x10° / 60°x25° / 80°x30° / 120°x50° +30, 50 and 120° circular options
Input	110-253V 50/60Hz AC only 18-30V AC/DC
Beam Shape	Elliptical or Circular
Beam Angle System	VARIO interchangeable lens system (elliptical) / Fixed (circular)
Consumption	136W
LED type	Platinum Elite SMT LEDs
Number of LEDs	48
Power output (luminous flux)	Up to 10,000 lm - circular beam Up to 9,000 lm - elliptical beam
Wavelength	White-Light
IP Rating	IP66 and IP67
Temperature Range	-10°C to +55°C (14°F to 131°F)
Colour Temperature (White-Light)	6,000K+
Colour	Silver/Grey
Weight	25kg (55.12lbs)
Dimensions	312 x 375 x 467mm (12.3 x 14.8 x 13.5")
Additional Features	Stainless steel rotary damper 2 x retention points for suspension cord CoolExtrude Thermal Management Removable PSU and LED modules SMART access wiring system T4, T5 and T6 Variants (T4 as standard)

Part Codes

Circular beam pattern	SPX-FL48C-W-1010 SPX-FL48C-W-3030 SPX-FL48C-W-5050 SPX-FL48C-W-120120
Elliptical beam pattern	SPX-FL48C-W-3510 SPX-FL48C-W-6025 SPX-FL48C-W-8030 SPX-FL48C-W-12050

# SPARTAN

## FLOOD HF12 & HF24



### LED Zone 1 & 2 High Output Floodlight Standard Variants

The SPARTAN High Output Flood range is designed specifically for hazardous environments which require high performance, high reliability, White-Light illumination. Using Raytec's field-proven, long-life LED technology SPARTAN floodlights are ATEX and IEC Ex approved for all Zone 1 and Zone 2 applications, C1D2, UL, CSA, ABS and rated for T4, T5 and T6 environments.

SPARTAN High Output Flood has been designed with maintenance in mind. A unique modular design allows key components to be easily accessed and serviced if required, making inspection and maintenance quicker and easier. It also allows for the most flexible installation.

SPARTAN Flood is available in a range of different beam patterns, both circular and elliptical, with revolutionary interchangeable VARIO lens inserts which can be easily altered on-site delivering the ultimate flexibility to specifiers, distributors and end users.

SPARTAN uses **COOLEXTRUDE™** thermal management technology, ensuring a much cooler LED operating temperature and up to 60% better heat dissipation compared to traditional lighting solutions, allowing the product to operate for > 10 years while still delivering a high lumen output of up to 25,000 lumens.

### Key Features

- ATEX and IEC Ex pending– Zone 1 & 2  
UL/CSA approved, including C1D2 and ABS
- Ultra long life LED
- High lumen output LED
- Easy installation, maintenance and inspection
- Emergency variants (under development)
- Wide operating temperature range of -50° to +55°C
- VARIO lens technology – modification of beam patterns
- Clear external tear off strips on outer optics available
- 5 year warranty

### Why Raytec

- UK Designed & Manufactured
- Manufacturing precision engineered LED products
- Worldwide distributor support
- Lighting design and full technical support
- ISO9001 and ISO140001 accredited
- Award Winning Technology

rayTEC®

Explosion Proof Network Camera



ATEX compliant cameras for remote monitoring in hazardous environments

Explosion Proof Network Cameras have weather resistant casing and are dust tight, waterproof and chemical resistant. The camera housing is robust and scratch proof with high impact resistant glass. Cameras are approved for areas such as mining, dust and gas explosions risk zones and are perfect for small surveillance solutions including petrol stations or large factories, saw-mills or environments that require a high level of surveillance for operational processes.

ATEC approved, the Explosion Proof Network Cameras offers:

- HDTV 1080p and H.264
- Day/night functionality
- Remote zoom and focus
- P-Iris control
- K08 impact-resistant
- Body and cover in low copper content aluminium alloy
- Front window in borosilicate glass



Camera	
Image sensor	Progressive scan RGB CMOS 1/2.8"
Lens	Varifocal, 3.0-10.5 mm, F1.4
	Horizontal angle of view: 95°-34°
	Vertical angle of view: 49°-20°
	Remote focus and zoom, P-Iris control, IR corrected
Day and night	Automatically removable infrared-cut filter
Minimum illumination	Color: 0.25 lux, F1.4
	B/W: 0.05 lux, F1.4
Shutter time	1/33500 s to 2 s
Camera angle adjustment	Pan ±180°, Tilt 90°, Rotation ±95°
Video	
Video compression	H.264 (MPEG-4 Part 10/AVC) Baseline, Main and Baseline Profile Motion JPEG
Resolutions	1920x1080 to 160x90
Frame rate	Up to 25/30 fps with power line frequency 50/60 Hz in all resolutions
Video streaming	Multiple, individually configurable streams in H.264 and Motion JPEG Controllable frame rate and bandwidth, VBR/MBR H.264
Multi-view streaming	2 individually cropped out view areas
Image settings	Compression, Color, Brightness, Sharpness, Contrast, White balance, Exposure control (including automatic gain control), Exposure zones, Backlight compensation, Fine tuning of behaviour at different light levels, WDR - Dynamic Contrast, Text and image overlay, Mirroring of images, Privacy mask
	Rotation: 0°, 90°, 180°, 270°, including Corridor Format
Pan/Tilt/Zoom	Digital PTZ
Network	
Security	Password protection, IP address filtering, HTTPSa encryption, IEEE 802.1Xa network access control, Digest authentication, User access log, Centralized Certificate Management
Supported protocols	IPv4/v6, HTTP, HTTPSa, SSL/TLSa, QoS Layer 3 DiffServ, FTP, CIFS/SMB, SMTP, Bonjour, UPnP, SNMP v1/v2c/v3(MIB-II), DNS, DynDNS, NTP, RTSP, RTP, SFTP, TCP, UDP, IGMP, RTCP, ICMP, DHCP, ARP, SOCKS, SSH

General	
Casing	Camera: Aluminium inner camera module with encapsulated electronics IK08 impact-resistant, dust-resistant, polycarbonate casing with dehumidifying membrane. Outer casing: Body and cover in low copper content aluminium alloy. Front window in borosilicate glass.
Memory	256 MB RAM, 128 MB Flash
Power	Power over Ethernet IEEE 802.3af/802.3at Type 1 Class 2 Max 4.8 W, Typical 3.5 W
Connectors	RJ45 10BASE-T/100BASE-TX PoE
Edge storage	Support for microSD/microSDHC/microSDXC card
	Support for recording to dedicated network-attached storage (NAS)
Operating conditions	0 °C to 50 °C (32 °F to 122 °F) Humidity 10 to 85% RH (non-condensing)
Storage conditions	-40 °C to 65 °C (-40 °F to 149 °F)
Approvals	EN 55022 Class B, EN 61000-6-1, EN 61000-6-2, EN 55024, EN 50121-4, IEC 62236-4, FCC Part 15 Subpart B Class A+B, ICES-003 Class B, VCCI Class B, C-tick AS/NZS CISPR 22 Class B, IEC/EN/UL 60950-1, IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-6, IEC 60068-2-14, IEC 60068-2-27, IEC 60068-2-78, IEC/EN 60529 IP42, IEC/EN 62262 IK08 EN 60079-0:2006 EN 60079-1:2007 EN 61241-0:2006 EN61241-1:2004 Execution: II 2GD Exd IIC T6:IP66 ATEX Cert No.: CESI 11ATEX 064
Weight/Dimensions	4.8Kg 174mm x 174mm x 160mm
System Integration	
Application Programming Interface	Open API for software integration, including VAPIX® and AXIS Camera Application Platform; AXIS Video Hosting System (AVHS) with One-Click Connection ONVIF Profile S.
Analytics	Video motion detection, Active tampering alarm. Support for AXIS Camera Application Platform enabling installation of AXIS Video Motion Detection 3, AXIS Cross Line Detection, AXIS Digital Autotracking and third-party applications,
Event triggers	Analytics, Edge storage events
Event actions	File upload: FTP, SFTP, HTTP, HTTPS, network share and email. Notification: email, HTTP, HTTPS, TCP and SNMP trap. Video recording to edge storage. Pre- and post-alarm video buffering. Send video clip. Overlay text
Data streaming	Event data
Built-in installation aids	Remote zoom, Remote focus, Pixel counter

# Gamma Floodlight

**LED** IP66/67

The Gamma is a high output LED floodlight is designed for use in Zone 1 & 21 hazardous areas. The compact design and flexible mounting allows the Gamma to also be used as a lowbay.

**Key Features:**

- High performance LED module providing uniform and crisp white light.
- Stainless steel construction to ensure extended life in harsh conditions
- 5-year complete system warranty



## Luminaire Ratings

Product Reference	Colour Temperature (K)	Lumen Output (lm)	Power (W)	Temp Class and Surface Temp				Weight (kg)
				Tamb 55 °C		Tamb 40 °C		
LX1GAM4LB57	5,700	10,000	72	T3	T100°C	T4	T85°C	13

Note – A transportable mains voltage version is also available, please refer to alternate datasheet for Gamma LGT

## Standard Specifications

Luminaire Type	Zone 1 & 21 LED Floodlight/Lowbay
Ingress Protection	IP66/67 to EN60529
Ambient Temperature	-30°C to +55°C
Material	Stainless steel 316 grade housing, toughened glass window, silicone gaskets and stainless steel fixings
Lamp Types	Light emitting diode, pure white (5700K)
Colour Rendering Index	> 80
LED Life	50,000 hours L <sub>70</sub> @ 50°C
Cable Entry	2 x M20 clearance holes. Supplied with 1 x Ex plug and 1 x transit plug
Terminals	Looping terminal block for up to 4mm <sup>2</sup> conductors
Control Gear	Electronic driver: EN60601-1 (CE), EN61204-3 (EMC), EN61000-4-5 (surge protection class 3).
Orientation	0° to 120°
Mounting	Via saddle bracket
Supply	110 to 254V 50/60Hz ac
<b>Certification</b>	
Area Classification	Zone 1 & 21, Gas and Dust
Type of Protection	Ex e (Increased Safety), Ex is (Intrinsically Safe), Ex op (Optical Radiation), Ex q (Quartz Filled) & Ex tb (Dust)
Apparatus Coding*	Ex eb ib op is qb IIB T* Gb, Ex tb IIC T*°C Db
Certificate Number	CML 16ATEX093 / IECEx CML 16.0041

\* Refer to luminaire rating table for T & ambient

Product design and specifications are subject to change without notice; please check the website for latest specifications

# Gamma Floodlight

**LED** IP66/67

The Gamma is a high output LED floodlight is designed for use in Zone 2, 21 & 22 hazardous areas.

## Key Features:

- High performance LED module providing uniform and crisp white light.
- Stainless steel construction to ensure extended life in harsh conditions
- Control gear with thermal cut-off protection to maintain LED life
- 5 year complete system warranty



## Luminaire Ratings

Product Reference	Colour Temperature (K)	Lumen Output (lm)	Power (W)	Temp Class and Surface Temp				Weight (kg)
				Tamb 55 °C		Tamb 40 °C		
LX2GAM4LB57	5,700	13,675	96	T3	T100°C	T4	T85°C	13

Note – A transportable mains voltage version is also available, please refer to alternate datasheet for Gamma LGT

## Standard Specifications

Luminaire Type	Zone 2 LED Floodlight
Ingress Protection	IP66/67 to EN60529
Ambient Temperature	-50°C to +55°C
Material	Stainless steel 316 grade housing, toughened glass window, silicone gaskets and stainless steel fixings
Lamp Types	Light emitting diode, pure white (5700K)
Colour Rendering Index	> 80
LED Life	50,000 hours L <sub>70</sub> @ 50°C
Cable Entry	2 x M20 clearance holes. Supplied with 1 x Ex plug and 1 x transit plug
Terminals	Looping terminal block for up to 4mm <sup>2</sup> conductors
Control Gear	Electronic driver with built in thermal cut off to extend operational life
Orientation	0° to 120°
Mounting	Via saddle bracket
Supply	90 to 305V 50/60Hz ac
<b>Certification</b>	
Area Classification	Zone 2, 21 & 22, Gas and Dust
Type of Protection	Ex nA (non-sparking), Ex tb & Ex tc (Dust)
Apparatus Coding*	Ex nA IIC T# Gc, Ex tb IIIC T#°C Db and Ex tc IIIC T#°C Dc
Certificate Number	ATEX 15ATEX3045 (Zone 2 & 22), 15ATEX4042 (Zone 21) / IECEx CML15.0022

\* Refer to luminaire rating table for T & ambient

**APPROVED  
DISTRIBUTOR**

**PERI**

## Introducing the Portable Worklight by Lutec

- ▲ 2 lampheads on a single stand
- ▲ 3300 lumens, super bright LEDs, only 35W
- ▲ 220-240V or 110V versions
- ▲ 90° vertical and 280° horizontal rotation
- ▲ Flip-lock adjustable tripod stand, non-slip feet
- ▲ Built-in cord wrap management
- ▲ Compact, easy to store and transport
- ▲ Integral carrying handle



**LUTEC**

CONNECTED BY LIGHTING

**APHASLAM**

Industrial Electrical Equipment Specialists

14 Sunshine Industrial Estate, Crumlin Road, Dublin 12

Tel: +353 (1) 453 2522 | Fax: +353 (1) 453 2949

Email: [sales@aphaslamm.ie](mailto:sales@aphaslamm.ie)

# SECURITY & WORK LIGHT

WALL	 <p>6156-PIR CORN / P204</p>	 <p>6294-PIR PERT / P206</p>	 <p>6322-PIR ARC / P208</p>	 <p>6219A SHRIMP I / P210</p>
FLOOD	 <p>8091 HAMBURG / P214</p>	 <p>6170 NEGARA / P218</p>	 <p>6170-PIR NEGARA / P218</p>	 <p>6170-SP NEGARA / P218</p>
WORKLIGHT	 <p>6297 UTIN / P226</p>	 <p>6229 FRONT / P228</p>	 <p>6229-800 FRONT / P228</p>	 <p>6230 FRONT / P228</p>

# CAMERA

CAMERA	 <p>6255-CAM ESA / P238</p>	 <p>6295-CAM PERI / P240</p>	 <p>6324-CAM LIBRA / P242</p>	 <p>ST1906-CAM VESTA / P244</p>
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6219A-PIR / P210  
SHRIMP I



6231-PIR / P212  
SHRIMP II



P6221A-PIR / P212  
SHRIMP II



6101S-PIR / P216  
NEVADA



6102S-PIR / P216  
NEVADA



6170S NEGARA / P220



6170S-PIR / P220  
NEGARA



6170S-SP / P220  
NEGARA



6226 ADO / P222



6243 ZIPO / P224



6225 COLLA / P230



6224 OWL / P232



6223 OWL / P232



6290 PERI / P234



6293 PERI / P236

## LUTEC

CONNECTED BY LIGHTING

## Today and Tomorrow

Technology has been intrinsically fused into light and lighting products, especially so with the emergence of LED. LUTEC's continued investment in this ever changing arena allows us to stay ahead of this new technology and design trends.

LUTEC has, so far, invested more than £1.5 million into the development of a new LED research laboratory and state of the art LED test equipment. We can meet the demand of Today, Tomorrow and the Future.

**SECURITY & WORK LIGHT** consists of a compact range focussing on safety applications for any work shop or construction site. Powerful floodlights with adjustable single or multiple spot heads, enable large areas to be lit.

**ARCHITECTURAL** applies to all the lighting installations for homes, terraces and gardens. Some products are unique, some are designed as a series. The points to consider are multiple. Each lamp has two lives, one during the day, the other at night.

**TRADITION:** Revisiting the traditional lantern theme with LED integrated versions. Matching with all kind of traditional homes & surroundings: Classic, Vintage, Cottage. Invisible light sources creating a magical glow.

**SOLAR:** different products for different applications around solar energy, portable lights or architectural, but always with the same ease of use and implementation.

**FUNCTIONAL** ranges include a number of essential lighting fixtures with a straight forward design. Ideal complements for functional applications like corridors, staircases, hall ways, entrance paths and facades. Most of the ranges come with an impact-proof polycarbonate opal diffuser resulting in a homogenous and strong light output without shadows.

NEW



ST2671-CAM / P246  
ELARA

# ARCHITECTURAL

WALL



6144S-1 MINI LEDSPOT / P2



6144S-2 MINI LEDSPOT / P2



6144S-1-PIR MINI LEDSPOT / P4



6144S-2-PIR MINI LEDSPOT / P4



2521S ANDA / P22



6163S MERIDIAN / P26



6163S-PIR MERIDIAN / P26

NEW



6163 MERIDIAN / P26



1877S CONE / P30



2251M SPRIL / P38



1880S GHOST / P42



1880L GHOST / P42



1881S GHOST / P42



2256S GHOST / P44



ST033071-PIR FACE / P54

NEW



1894 EVEN / P56



1899 SECO / P58



1849 ORIGO / P60



1846 BOX CUBE / P62



1896 TONA / P72



1896-PIR TONA / P72



1860 EYES / P74



1860L EYES / P74



1861 EYES / P76



6144-1 LEDSPOT / P6



6144-2 LEDSPOT / P6



6141-1 CYLIN / P12



6260 TRUMPET / P16



6160 EGGO / P18



1876S CONE / P32



1876 CONE / P32



2253S SPRIL / P36



2251S SPRIL / P36



2253M SPRIL / P38



6166 ARMOR / P48



ST031051 FLAT / P50



NEW

ST5001 SLIM / P52



NEW

ST5001-PIR SLIM / P52



NEW

ST033071 FACE / P54



1843 BOX CUBE / P62



1853 CLIP / P64



1836 CITY / P66



1838S DELTA / P68



1895 ZERTA / P70



1868 EYES / P76



1865 RADIUS / P78



1866 RADIUS / P78



1882 SANDWY / P80



1871 MASK / P82

# ARCHITECTURAL

				
1872 MASK / P82	1869 PILO / P84	1862 EVANS / P86	1863 EVANS / P86	1879 SPLIT / P88
			 <b>NEW</b>	 <b>NEW</b>
ST5215 TUBE / P94	ST5212 CRYSTAL / P96	ST5216 CRYSTAL / P96	ST5108 LUCA / P98	ST033023 LUCA / P98
 <b>NEW</b>				
ST6058-PIR PATH / P104	6041 FOCUS / P106	6040 FOCUS / P106	6051 FOCUS / P110	6050 FOCUS / P110
	<b>BOLLARD</b>			
6042 FOCUS / P108			6146S-1 MINI LEDSPOT / P8	6146S-2 MINI LEDSPOT / P8
				
6164S MERIDIAN / P28	6164 MERIDIAN / P28	11876N3 CONE / P34	21876N3 CONE / P34	2252S SPRIL / P40



1891S GEMINI / P90



1891M GEMINI / P90



1890S GEMINI / P92



1890M GEMINI / P92



ST5214 TUBE / P94



ST5218 BILAYER / P100



ST5219 BILAYER / P100



NEW

ST6057 PATH / P102



NEW

ST6057-PIR PATH / P102



NEW

ST6058 PATH / P104



ST6041 FOCUS / P112



ST6040 FOCUS / P112



ST6051 FOCUS / P114



ST6050 FOCUS / P114

CEILING



6142-1 CYLIN / P14



6142-2 CYLIN / P14



NEW

6261A TRUMPET / P16



6161 EGGO / P20



2522S ANDA / P24



2252M SPRIL / P40



2257S GHOST / P46



6167 ARMOR / P48



ST031052-450 FLAT / P50



6048 FOCUS / P108

# FUNCTIONAL

WALL & CEILING	 <p>3481L UBLO / P248</p>	 <p>3481S UBLO / P250</p>	 <p>3491L UBLO / P248</p>	 <p>3491S UBLO / P250</p>
 <p>3372 TITAN / P254</p>	 <p>3361 TITAN / P256</p>	 <p>3362 TITAN / P256</p>	 <p>3363 TITAN / P256</p>	 <p>3172S TITAN / P258</p>
 <p>3342S SEINE / P262</p>	 <p>3304 BONN / P264</p>	 <p>ST3304 BONN / P264</p>		
RECESSED WALL	 <p>1831A VICTORIA / P266</p>	 <p>1831B VICTORIA / P266</p>	 <p>1831C VICTORIA / P266</p>	 <p>1831D VICTORIA / P268</p>
RECESSED GROUND	 <p>7005A BERLIN / P272</p>	 <p>7005B BERLIN / P272</p>	 <p>7042A CYDOPS / P274</p>	 <p>7037A MERC / P276</p>



3501L UBLO / P248



3501S UBLO / P250



3351 ORIGO / P252



3351S ORIGO / P252



3371 TITAN / P254



3174S TITAN / P258



3381 SEINE / P260



3382 SEINE / P260



3383 SEINE / P260



3341S SEINE / P262



1829 CATANIA / P268



1821D-A  
MONTANA / P270



1822D  
MONTANA / P270



7013 ARCTIC / P278



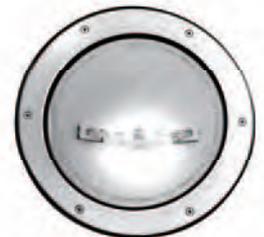
7007A LED  
SEATTLE / P280



7008A LED  
SEATTLE / P280



7008A REGINA / P282



7009A CHICAGO / P284

# SOLAR ENERGY

<p>PORTABLE</p>	 <p>P9080 TABLE CUBE / P136</p>	 <p><b>NEW</b> P9080-450 TABLE CUBE / P138</p>	 <p>P9077 PADLIGHT / P140</p>	 <p>P9041 DRAGONFLY / P142</p>
 <p>6144S-2-SL MINI LEDSPOT / P150</p>	 <p>P9034 ZERTA / P152</p>	 <p>P9015 BREAD / P154</p>	 <p><b>NEW</b> ST9087 BUBBLE / P156</p>	 <p><b>NEW</b> P9085 BRICK / P158</p>
 <p>P9011 ZETA / P166</p>	 <p>P9013 DROP / P168</p>	 <p>P9000 POLE / P170</p>	 <p>P9012 TILLY / P172</p>	<p>WALL INDEPENDENT PANEL</p>
<p>HYBRID COLLECTION</p>	 <p>P9052 SPARTA / P185</p>	 <p>P9053 GREENBALL / P186</p>	 <p>P9054 GYQ25 / P186</p>	 <p>P9036 FLAM / P188</p>
 <p>P9037-450 STACK / P194</p>	 <p>9047 HONY / P196</p>	 <p>9049 HONY LOOP / P198</p>	 <p>9048 HONY DECK / P198</p>	 <p><b>NEW</b> 8012 PILLAR / P200</p>



P9003-ST  
MINI BUTTERFLY / P144



P9035C BUMP / P146

WALL  
INTEGRATED  
PANEL



P9040 LORD / P148



6144S-1-SL  
MINI LEDSPOT / P150



ST9079 SOLSTEL / P160



ST9079-450  
SOLSTEL / P160

NEW



P9067-PIR DISO / P162

NEW



P9067-450 DISO / P162

NEW



P9014  
GHOST SOLAR / P164



P9016 SUNSHINE / P174



P9019 OPENY / P176



P9044 MATRA / P178

NEW



6101S-PIR SL  
NEVADA / P180



6102S-PIR SL  
NEVADA / P180



ST9039 KIWA / P190



ST9039-525 KIWA / P190



ST9038 MINIS / P192



ST9038-580 MINIS / P192



P9037 STACK / P194



NEW

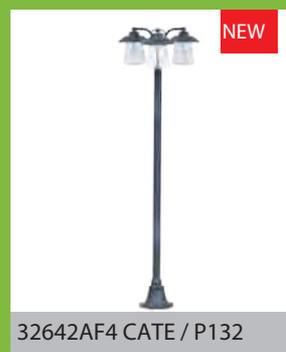
P2282S GLOBE / P202

# TRADITION

## WALL



## BOLLARD





# APHASLAM WORKSHOP



Providing bespoke solutions to  
your electrical installation problems



## Our wide range of services

110v Site Services Products

Copper Earth Bars

CSD Sealing Systems

Custom-made Cable Marking and Terminal Numbering

Custom-made Disconnect Switches

Custom-made Socket Combination

Custom-made Stainless-steel Isolation and Mains Distribution

Explosion-Proof and Hazardous Area Products

Fire-Rated Junction Boxes

Terminal Junction Boxes for Industrial and Explosion-proof Applications

Terminal assembly

Trace Heating Products

## The Workshop at AP Haslam Ltd

has been providing bespoke solutions to Ireland's electrical and construction industry for over 30 years.

Along with day-to-day orders for enclosures and glands we also create solutions for one-offs or prototype orders.

To give you a flavour of what the **AP Haslam Workshop** does, here are a few examples of the type of solutions we have produced recently.



## CASE STUDY 1

An event manager in Dublin was constantly coming up against problems when it came to sourcing and redistributing power at outdoor events



The varied locations he worked in, such as marquees in domestic homes or hotel lawns, presented various challenges when it came to power supply such as distance from the main supply and the availability of sockets.

Our customer came to the **AP Haslam Workshop** looking for a portable and flexible solution with some specific requirements. For example he needed a single and three phase power supply with individual MCB and RCD protection.

The customer preferred more single than three phase outputs and the unit needed to be portable and have a good frame to stand alone in any venue.

**Our Solution:** *The AP Haslam Workshop produced a quick overview drawing explaining how the propose solution worked and following discussions and some small alterations the Haslam standalone socket distribution combo was assembled.*

*The frame was part of a range which the workshop had identified for similar jobs in the past.*

*Made of powder coated rolled steel, it's size and weight was perfect for this customers requirement and use. This particular combination unit needed two distribution boards and the frame provided adequate space to house both boards and socket units.*

*The unit which was sourced and produced in 8 working days was ready for a large wedding marquee in an agricultural setting.*

*The unit weighted approx 8 kilos, light enough for portability and heavy enough to withstand being used outdoors. Naturally all components met the relevant ESB standard for portable combination units.*



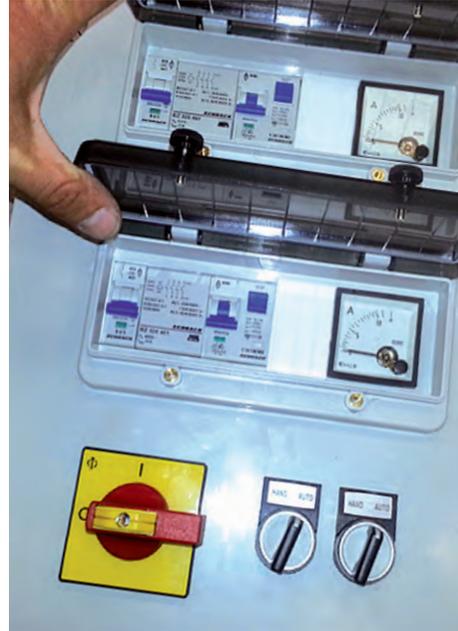
## CASE STUDY 2

A major brewery in Dublin were installing piping throughout their new plant and required a trace heating solution



Part of the customer requirement was to insure that the proposed system was energy efficient – by not allowing the system to heat pipes which were not in use.

The pipes in question were mainly for use outside the plant – with limited space available for installation.



**Our Solution:** Following the delivery of a spec and some refinements based on feedback from the **AP Haslam Workshop** the power control monitoring system prototype was created and agreed upon.

The system had a control panel to allow manual intervention or to run the system automatically.

The system also housed a control MCB for energising the coil as well as circuit protection and amp meter. The cover (modular access window) was fully weather protected with an IP67.

**Call the AP Haslam Workshop on 01453 2522 to receive a quote for your next installation project.**

## CASE STUDY 3

A world-leading food producer wanted to build a state-of-the-art food sampling area in their new premises just outside Dublin



The requirement was to allow the sampler and the person controlling the sampling process to communicate from either side of two segregated areas using green and red buttons through a client-specified, two-gang illuminated push button control station.

Limited space constraints in the sampling area had to be taken into account when the plates etc. were designed, resulting in the **AP Haslam Workshop** producing a bespoke stainless steel plate to fit a recess wall space that did not allow for the normal control unit size.



**Our Solution:** **AP Haslam Workshop** produced a two gang illuminated push button control station both of which worked in conjunction with each other – and a stainless steel plate to fit the non-standard size wall recess.

The control station was 600 x 400 x 210 in depth. Each control panel required 4 inputs and 2 outputs from the PLC to facilitate the sampling process. The wiring was simplified to allow on-site installation – wiring two sets of terminals to 34 10-way female sockets. This control panel operates a total of 17 dual independent units.

## CASE STUDY 4



The **AP Haslam Workshop** frequently handles requests for electrical items that need to be used within hazardous environments and where there is potential for an explosion due to gas or dust particles in the atmosphere

This radio key fob was not ATEX certified and therefore not suitable to stand alone in a hazardous area.

Circuit protection within a hazardous area is one of the most frequent requests the **AP Haslam Workshop** receives, given the potential for sparks being produced to create an explosion.

**Our Solution:** The fob was installed within an EExd enclosure featuring a tempered glass front window to allow the fob signal to work effectively – while still protecting it in the hazardous area.



## Top-Tip

*Wi-Fi has become an essential component in most business premises and plants.*

*A business with **Hazardous Areas** needs to enclose wi-fi routers as they emit heat into the atmosphere.*



## Glands & Enclosures

By ordering pre-assembled enclosures from **AP Haslam Workshop** you can combine components from various suppliers to create the enclosure which best suits your specifications and price. We have available a wide range of enclosures and glands to suit your needs.

Call us on **01453 2522** or drop into **The Workshop**, 14 Sunshine Industrial Estate, Crumlin Road, Dublin 12.



## CASE STUDY 5

### 40 way input/ output unit

Whilst overseeing the completion of a large infrastructural development in Dublin, our customer needed to satisfy the requirements of a Health & Safety review around fire alarm location.

The requirement was to be able to identify the exact location of each individual fire alarm within various areas in the plant, if activated.

The individual units had to be capable of expansion – allowing new alarms to be connected over time.

**Our Solution:** *The requirement was to create a series of input/output enclosures that provided enough space to house up to 40 units per enclosure, allowing for future expansion.*

*The restricted space allowed for the proposed enclosure meant we could only use a 600x600 enclosure in which we had to accommodate a maximum of 40 input/output units.*

*The AP Haslam Workshop solution was passed by programme management and signed off by a new Health & Safety review, addressing the current and possible future needs of the plant, while keeping each alarm identified as per the specification.*



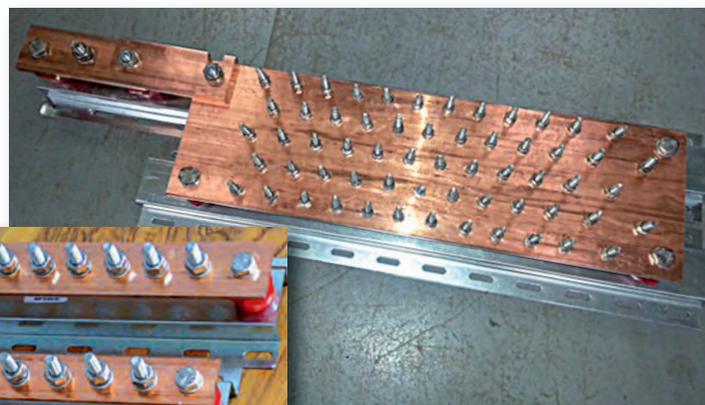
**For help and advice  
before starting on a  
bespoke project,  
be sure to call the  
AP Haslam  
Workshop  
on 01453 2522**

## Earth Bars

The **AP Haslam Workshop** offer a full range of standard stocked earth bars as well as producing custom made earth bar solutions.

We completed an order for a customer who needed sixty M8 connections with a disconnect facility. However, he had some constraints when it came to the amount of space in the area he was working in...

**Our Solution:** *To source a 150mm x 10mm flat copper bar and use it to install 60 (five rows of twelve) M8 connections. Bearing in mind the finished product's weight, this was assembled onto two lengths of larger top-hat rail making the final wall mounting simple.*



And there's more...

## Intrinsically Safe Terminal Boxes

For hazardous area use which can be used in **Intrinsically Safe Systems** without certification – subject to certain voltage and amp restrictions.



Small power terminal junction boxes which we produce regularly in the **AP Haslam Workshop** – with some TB12 316L Marshelling Boxes for good measure.



## JUNCTION BOXES

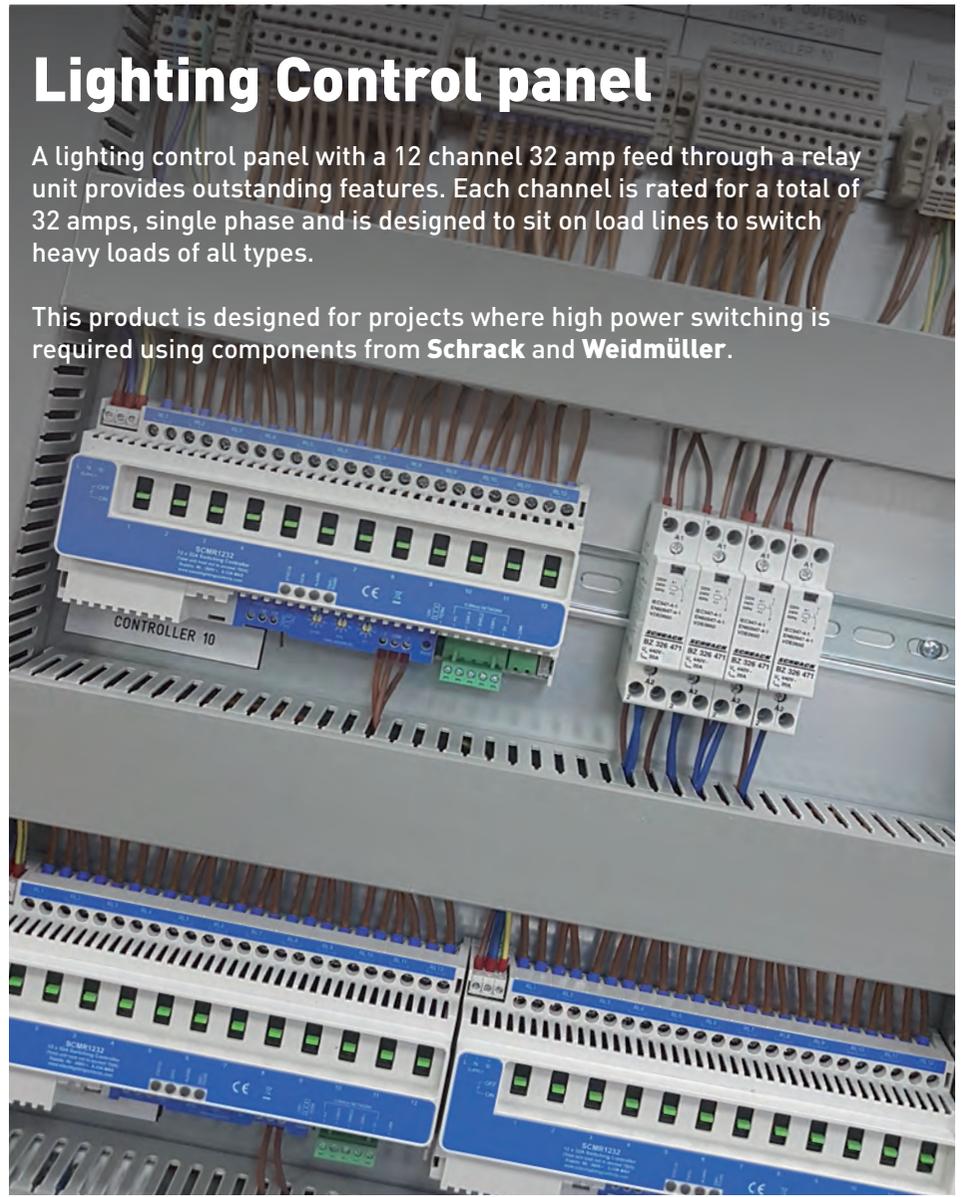
Components from two of our main quality suppliers – **WISKA** junction boxes using **Weidmüller** terminals.



## Lighting Control panel

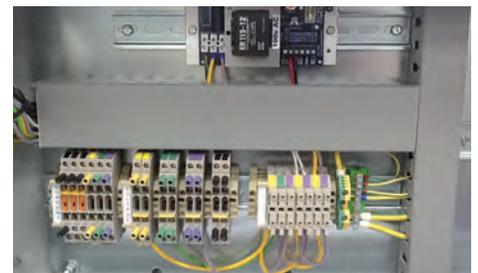
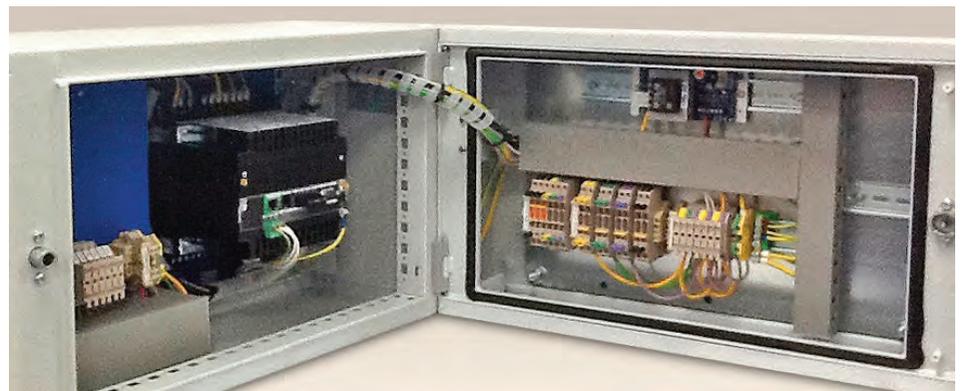
A lighting control panel with a 12 channel 32 amp feed through a relay unit provides outstanding features. Each channel is rated for a total of 32 amps, single phase and is designed to sit on load lines to switch heavy loads of all types.

This product is designed for projects where high power switching is required using components from **Schrack** and **Weidmüller**.



## IPP wind farm monitoring cabinet

**AP Haslam Workshop** have produced this cabinet, which allows windfarm managers to gauge the quality and amount of power being generated.



# Renting or buying?

## Talk to us about your labelling and terminal printing needs



The **AP Haslam Workshop** supplies the advanced **MARKINGENIUS 3** to satisfy all your cable and terminal identification needs.

Whether you are renting or purchasing, contact **AP Haslam** on **01453 2522** for a demonstration of the **MARKINGENIUS 3**.



## Or we do your label printing for you!

Alternatively to renting or buying, the **AP Haslam Workshop** cable identification facility can produce a wide variety of labels for lettering, numbering and signage – to whatever your specific requirement might be.

Our advanced **MARKINGENIUS 3** is ideal for both small and large cable and terminal identification orders. Allow us to help you make your mark.

**Talk to the AP Haslam Workshop on 01453 2522 or email : [sales@aphaslami.ie](mailto:sales@aphaslami.ie)**



# APHASLAM WORKSHOP

14 Sunshine Industrial Estate, Crumlin Road, Dublin 12  
Tel: +353 (1) 453 2522 | Fax: +353 (1) 453 2949  
Email: [sales@aphaslami.ie](mailto:sales@aphaslami.ie)



Custom Stainless Steel control stations designed to your exact specifications.



Custom IGRP enclosures designed to your exact specification.

# ZONE 1, 21, 2 & 22 CONTROL STATIONS & GEAR

indEx can build, certify and wire complete systems for use in hazardous & industrial areas but also supply individual control gear, actuators and LED's so you can build your own system.

Call our sales team to discuss all your options.



Enclosure cut outs and entries for control push buttons, lamps, contactors and HMI screen.



Blow Out Preventer panel or BOP complete with protective perspex lid cover.



IGRP control stations, customised and certified to your exact requirements.



Empty enclosure cut outs and entries for control push buttons, lamps, contactors and HMI screen. Talk to our sales team for certification options.



Custom control stations designed to your specifications.



Control gear – LEDs, E stop, actuators, voltmeters and ammeters sold separately or integrated in our ATEX Ex de enclosures and certified.

### Heating Tape



Type VC to BS 6351 Grade 2.1

Parallel Circuit – Constant Wattage

Watt/mtr	Volts	Max Circuit Length (mtr)	Part No.
8	240V AC	275 m	VCBOJ8/240V
12	240V AC	187 m	VC12BOJ/240V
16	240V AC	154 m	VC16BOJ/240V
20	240V AC	132 m	VC20BOJ/240V
30	240V AC	116 m	VC30BOJ/240V
40	240V AC	98 m	VCBOJ40/240V

Also available in 110V AC, over braid and over jacket.

Type SC to BS 6351 Grade 2.2

Parallel Circuit – Constant Wattage

Watt/mtr	Volts	Max Circuit Length (mtr)	Part No.
8	240V AC	275 m	SCBOJ8/240V
12	240V AC	187 m	SCBOJ12/240V
16	240V AC	140 m	SCBOJ16/240V
20	240V AC	132 m	SCBOJ20/240V
30	240V AC	116 m	SCBOJ30/240V
40	240V AC	99 m	SCBOJ40/240V
50	240V AC	76 m	SCBOJ50/240V
60	240V AC	66 m	SCBOJ60/240V

Also available in 110V AC, over braid and over jacket.

Self Limiting Heating Tape c/w braided over jacket

Watt/mtr	Max Circuit Length (mtr) @ 10°C	Part No.
10	200	FBTBOJ 10/230V
20	155	FBTBOJ 20/230V
30	120	FBTBOJ 30/230V
40	100	FBTBOJ 40/230V

Self Regulating Heating Tape for Maintaining Hot Water Systems

Type	Part No.
55W/Metre 230V	H20WAT55
65W/Metre 230V	H20WAT65

### Accessories for Heating Tape



Description	Part No.
Both end termination kit (Qty 3) Adhesive type	VCTA
Both end termination kit (Qty 3) Heatshrink type	VCTH
Both end termination kit (Qty 3) Adhesive type	SCTA
Both end termination kit (Qty 3) Heatshrink type	SCTH
Woven glass fixing tape 50 m long 12 mm	02-5500-0001
Adhesive aluminium tape 45 m x 50 mm	FTA
Insulation entry kit	E1

### Thermostats



Description	Part No.
Air/Pipe Temperature sensing thermostat 0 – 90°C 0-230V, 16amp, IP65	STC
Air/Pipe Temperature sensing thermostat 0 – 90°C 0-230V, 16amp, IP65 c/w indicators	STC1
Pipe temperature sensing thermostat 35°C – 210°C Capillary length: 1 meter 0 – 230V, 16A, IP65, 4 x M20 cable entries	JBT3

### Temperature Controller



Description	Part No.
Controller	ST64
Micro processor based regulator	
Adjustable process parameters and set points	
Set point 1	
Hysteresis – set point	
Control range values – min/max	
Actual value correction	
Defrost time limitation (defrost controllable)	
Keypad lock	
Measuring input PT100 -40.....410°C	
Controller in enclosure also available.	
Hazardous Area Heating tapes and accessories available on request.	

### Silicone Joint Boxes – for VC and SC Heating Tapes



Description	Part No.
2 way "straight through" joint	JBVC2
3 way "T" joint	JBVC3
4 way "Cross" joint	JBVC4
2 way "straight through" joint	JBSC2
3 way "T" joint	JBSC3
4 way "Cross" joint	JBSC4

### CSD The RISE Duct Sealing System – Water, Gas and Fire Tight



The Rise Duct Multi-cable and pipe transit sealing system provides an effective and simple solution to all fire, gas and watertight duct sealing requirements

#### Key Benefits:

- Cost effective, up to 4 hours fire protection. Quick and Easy Installation.
- High levels of gas and water-tightness ensures DSEAR compliance.
- WIMES Compliant. Easy of re-entry for adding cables
- Few components. No frame required. Suitable for Trefoil cables
- Resistant to Methane, Hydrogen, Sulphide and Chlorine
- Complies with ATEX Regulations

Description	Size	Part No.
Water/gas tight kit	100mm	RiseDuct100WG Kit
Water/gas tight kit	150mm	RiseDuct150WG Kit
Fire, water/gas tight kit	100mm	RiseDuct100F Kit
Fire, water/gas tight kit	150mm	RiseDuct150F Kit

#### Accessories

Description	Part No.
Rise finishing kit including gloves, cloths, water sprayer and wooden section	Rise Finishing Kit
FIWA 310ML cartridge sealing compound	FIWA 310ML Cartridge
High pressure cartridge gun	Cartridge Gun 310ML
Spare water/gas sleeve	RISEWAT 18/12/60
Spare water/gas sleeve	RISEWAT 27/19/60
Cleaning fluid	AGASOL 750ml

#### CSD Nofirno Boards and Sealant

Description	Part No.
1000 x 600mm Single Board Double Coated	Nofirno BD 2Coated
1000 x 600mm Single Board Single Coated	Nofirno BD 1Coated
310ml Cartridge Fire Sealant	Nofirno Sealant
*Single board double coated: 60 Minute Fire Rating	
*2 No. Single boards, single coated mounted back to back: 90 Minute Fire Rating	

Connectivity and electrical installation



**Weidmüller** 

### Weidmüller offers a comprehensive range of accessories – Crimping Sets

*Workshops and companies prefer well organised tool sets. This reduces searching and preparation times and thus saves hard cash. Weidmüller has recognised these important aspects and implements this in its product combinations. These stand out due to their high user benefit and functional features. Weidmüller crimping sets for cutting, stripping and crimping wire end ferrules provide you with practical works equipment for everyday use. Contact our Sales office on 01 453 2522 for more information.*



Tools for Ferrule Terminals



**Description** For Ferrule Terminals 0.5 – 6mm2  
**Part No.** CEFT1

**Description** For Ferrule Terminals 4 – 16mm2  
**Part No.** CEFT2

**Description** For Ferrule Terminals 16 – 35mm2  
**Part No.** CEFT3

**Description** For Ferrule Terminals 25–35–50mm2  
**Part No.** 9006450000

Tools for red, blue and yellow insulated Terminals



**Description** For red, blue and yellow insulated Terminals 0.25 – 6mm2  
**Part No.** CT15

Cable Stripping & Crimping Tools



Cable Stripping		Part No.
Type	Capacity	
Mini Stripax c/w Blade Sets	0.2mm2 – 1.21 mm2	9003500000
Stripax Spare Jaws	0.5 sq mm – 4 mm2	9005000000 9005400000
Stripax 16	16 sq mm	9005610000
Mini Stripax Spare Jaws	0.08 sq mm – 1 mm2	9001280000 9001290000

Tools for Copper Tube Terminals



**Description** For Terminals 1.5 – 16mm2  
For Terminals 10 – 16mm2  
**Part No.** CT 1.5–16  
CT 10–16

**Description** Ratchet crimping tool for copper tube lugs  
Crimps from 6-25sq.  
\* Adjustable tensioner  
\* Ergonomically designed handles  
**Part No.** CT 6-25

**Description** For terminals 6 – 50mm2  
**Part No.** CT50



**Hexagonal Crimp**  
**Description** For coppertube terminals 16 – 120mm2  
For coppertube terminals 25 – 150mm2  
**Part No.** CT 120  
CT 150

**Ratcheting Cable Cutters**  
**Description** For copper and aluminium non–armoured cable up to 380mm2  
For copper and aluminium non–armoured cable up to 500mm2  
**Part No.** PRCC380  
PRCC500



AM25 4.5 – 25.0 mm dia. 9001540000  
Spare Blade 9001530000



**Crimping Tools**

Tools	Capacity	Part No.
PZ 4	0.25 – 4 sq mm	9012500000
PZ 16	6, 10 & 16 sq mm	9014980000
PZ 50	Ferrules 25 & 50 mm2	9006450000

Weidmüller Cable Preparation Tools



**Type** KT20  
**Part No.** 9002300000  
Precisely cuts copper and aluminium cables up to 20 mm2 Max. cutting capacity: Copper cable: 16mm2 solid, 35mm2 stranded, 70mm2 flexible



**Type** KT45  
**Part No.** 9202040000  
Precisely cuts copper and aluminium cables up to 45mm2 Max cutting capacity: Copper cable: 300mm2 flexible and stranded, 600 MCM flexible and stranded, 4 x 70mm2 stranded, sector shaped conductors 4 x 70mm2 stranded  
Aluminium cable: 400mm2 stranded, sector-shaped conductors 4 x 70mm2 stranded  
Data-telecoms cables: 44 mm outer dia.  
\* Not suitable for steel wires, steel armoured cables, aluminium alloys and hard drawn copper conductors.



**Type** KT60  
**Part No.** 9002550000  
Precisely cuts copper and aluminium cables up to 62mm2 Max cutting capacity: Copper cable: 800mm2 flexible and stranded, 1500 MCM stranded, Sector shaped conductors 4 x 185mm2 stranded  
Aluminium cable: 1000mm2 stranded, sector-shaped conductors 4 x 240m mm  
Data-telecoms cables: 62 mm outer dia.  
\* Not suitable for steel wires, steel armoured cables, aluminium alloys and hard drawn copper conductors.

## Hydraulic Crimping Tools, Die-Sets & Adaptors



**Description** **Part No.**  
Hydraulic Crimping Tool from 10-400sq. HT 131-C  
\* Fully Rotating Head  
\* Built in safety valve  
\* Supplied in sturdy carrying case

**Description** **Part No.**  
Hydraulic Presshead from 10-400sq. RHC-131  
\* Complete with quick automatic coupler for connection to a hydraulic pump  
\* Supplied in sturdy carrying case



**Description** **Part No.**  
Battery Operated Crimping Tool from 10-400sq. B 1350-CE  
\* 18v Cordless Crimping Tool  
\* Lightweight and balanced  
\* Double speed action  
\* Rotating head through 180 degrees  
\* Supplied in sturdy carrying case  
\* Crimping cycle data (up to 200,000 events) is automatically stored on a memory card for transfer to a PC by USB Interface.



**Description** **Part No.**  
Hand Operated Hydraulic Cutting Tool HT-TC026  
\* Max. cutting diameter 25mm  
\* Rotating head through 180 degrees  
\* Automatic safety valve  
\* Supplied in canvas carrying bag

**Description** **Part No.**  
Hand Operated Hydraulic Cutting Tool HT-TC041  
\* Max. cutting diameter 40mm  
\* Rotating head through 90 degrees  
\* Automatic safety valve  
\* Supplied in sturdy carrying case

**Description** **Part No.**  
Hand Operated Hydraulic Cutting Tool HT-TC051  
\* Max. cutting diameter 50mm  
\* Rotating head through 90 degrees  
\* Automatic safety valve  
\* Supplied in canvas carrying bag

**Description** **Part No.**  
Hydraulic cutting head TC-050  
\* Max. cutting diameter 50mm  
\* Complete with quick automatic coupler for connection to a hydraulic pump  
\* Supplied in canvas carrying bag



**Description** **Part No.**  
Hydraulic cutting head TC-055  
\* Max. cutting diameter 55mm  
\* Complete with quick automatic coupler for connection to a hydraulic pump  
\* Supplied in metal carrying case

**Description** **Part No.**  
Hand Operated Hydraulic Cutting Tool HT-TC065  
\* Max. cutting diameter 65mm  
\* Rotating head through 320 degrees  
\* Automatic safety valve  
\* Supplied in canvas carrying bag

**Description** **Part No.**  
Hand Operated Hydraulic Cutting Tool HT-TC0851  
\* Max. cutting diameter 85mm  
\* Rotating head through 180 degrees  
\* Automatic safety valve  
\* Supplied in sturdy carrying case



**Description** **Part No.**  
Hydraulic cutting head TC-085  
\* Max. cutting diameter 85mm  
\* Complete with quick automatic coupler for connection to a hydraulic pump  
\* Supplied in metal carrying case

**Description** **Part No.**  
Hydraulic cutting head TC-096  
\* Max. cutting diameter 95mm  
\* Complete with quick automatic coupler for connection to a hydraulic pump  
\* Supplied in metal carrying case

**Description** **Part No.**  
Hydraulic cutting head TC-120  
\* Max. cutting diameter 120mm  
\* Complete with quick automatic coupler for connection to a hydraulic pump

### Cembre Hexagonal Die Sets for hydraulic crimping tools.

Part No.	Size
ME 2-C	10sq.
ME 3-C	16sq.
ME 5-C	25sq.
ME 7-C	35sq.
ME 10-C	50sq.
ME 14-C	70sq.
ME 19-C	95sq.
ME 24-C	120sq.
ME 30-C	150sq.
ME 37-C	185sq.
ME 48-C	240sq.
ME 60C	300sq.
ME 80-C	400sq.

## Hydraulic Crimping Tool Hire Service

### Hydraulic Crimping Tool Hire Service

**Description** **Part No.**  
G – 10 Hand operated hydraulic crimping tool (10sq – 400sq Hexagonal crimp) G 10TS/Hire (No.1)  
Please specify which size Die-sets are required when ordering.

## Cembre Battery Tools



### 18V Cordless hydraulic crimping tool

New Li-Ion 18 V 4 Ah batteries offer a higher capacity than 14.4 V 3 Ah, while greater crimping speed and crimping force result from a revitalized hydraulic system with double speed action: a rapid approach of the dies to the connector then a slower, more powerful speed for crimping.

A maximum pressure sensor and security valve assure greater precision and repeatability of the pressure cycle and double the provision for operator safety.

Designed with less weight and improved balance, B500 is easily manageable during the crimping process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage.

Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area.

Crimping cycle data (upto 200,000 events) is automatically stored on a memory card for transfer to PC by USB interface.

### Part No.

B500

Alfra – HSS BI–Metal Hole Saws & Sets



Combi Tothing (4/6 tpi)

Hole size diameter		Part No.
16mm	5/8"	0500016
17mm	11/16"	0500017
19mm	3/4"	0500019
20mm	–	0500020
21mm	13/16"	0500021
22mm	7/8"	0500022
24mm	15/16"	0500024
25mm	1"	0500025
29mm	1 1/8"	0500029
32mm	1 1/4"	0500032
38mm	1 1/2"	0500038
40mm	1 9/16"	0500040
41mm	1 5/8"	0500041
48mm	1 7/8"	0500048
51mm	2"	0500051
54mm	2 1/8"	0500054
57mm	2 1/4"	0500057
60mm	2 3/8"	0500060
64mm	2 1/2"	0500064
67mm	2 5/8"	0500067
70mm	2 3/4"	0500070
73mm	2 7/8"	0500073
76mm	3"	0500076
79mm	3 1/8"	0500079
83mm	3 1/4"	0500083
89mm	3 1/2"	0500089
95mm	3 3/4"	0500095
102mm	4"	0500102
105mm	4 1/8"	0500105
108mm	4 1/4"	0500108
114mm	4 1/2"	0500114
121mm	4 3/4"	0500121
127mm	5"	0500127
140mm	5 1/2"	0500140
152mm	6"	0500152

Arbor with Guide Drill

To suit hole saws	Type	Shank Hexagon	Part No.
14–30 mm	A6	9.5	0501001
32–152 mm	A2–SS	9.5	0501003
102–210 mm	A3–SS	11.11	0501006

Spare Parts Drill HSS

Size mm	Part No.
6.35 x 80	0502001
6.35 x 95	0502002



TCT – Hole Saws – MBS

Multi-range saw for the universal use on unalloyed and alloyed steels.  
Hand Drilling Machines: up to 4mm material thickness. Pillar Drilling machines: up to 10mm material thickness.

Hole size diameter	Part No.
20mm	0730020
25mm	0730025
32mm	0730032



Hole Saw Set Electro

Content	Part No.
Ø 22 mm, Ø 29 mm, Ø 35 mm	0503008
Ø 44 mm, Ø 51 mm, Ø 64 mm, Ø 68 mm	
Arbor A6-SS, Arbor A2-SS, Spare Twist Drill	

Hole Saw Set Standard

Content	Part No.
Ø 16 mm, Ø 19 mm, Ø 22 mm	0503006
Ø 29 mm, Ø 35 mm, Ø 44 mm	
Ø 52 mm, Ø 57 mm, Ø 67 mm	
Arbor A6-SS, Arbor A2-SS, Spare Twist Drill	



Hole Saw Set Professional

Content	Part No.
Ø 16 mm, Ø 19 mm, Ø 22 mm	0503007
Ø 25 mm, Ø 29 mm, Ø 32 mm	
Ø 35 mm, Ø 38 mm, Ø 44 mm	
Ø 51 mm, Ø 64 mm, Ø 76 mm	
Arbor A6-SS, Arbor A2-SS, Spare Twist Drill	

Hole Saw Set Sanitary

Content	Part No.
Ø 16 mm, Ø 19 mm, Ø 24 mm	0503009
Ø 29 mm, Ø 38 mm, Ø 44 mm	
Ø 57 mm, Ø 67 mm	
Arbor A6-SS, Arbor A2-SS, Spare Twist Drill	



Busbar Bending and Punching Machine



Tungsten Carbide Tipped Hole Saws



ALFRA Busbar Cutting Machine



Alfa Press AP 500 LPV Outreach 500mm

For information on all of the above, please contact our sales department on 01 453 25 22

## Alfra – Punching, Bending &amp; Cutting Systems

**Hydraulic Punches**

**Description** **Part No.**  
Compact Hand Hydraulic Puncher 02001  
(straight) complete in transport case.

**Contents:**

1 x Hand Puncher  
1 x 19mm Screw (tie bolt)  
1 x 19 x 9.5mm Screw (tie Bolt)  
1 x H55 11mm pre-drill  
1 x set of 3 spacer bushes

**Description** **Part No.**  
Compact Hand Hydraulic Puncher 02055  
(angled) with 900 offset and 3600 revolving cylinder head.

**Description** **Part No.**  
Compact Hand Hydraulic Puncher 02050  
(angled) with 900 offset and 3600 revolving cylinder head complete in transport case.

**Contents:**

1 x Hand Puncher  
1 x 19mm Screw (tie bolt)  
1 x 19 x 9.5mm Screw (tie bolt)  
1 x HSS 11mm pre-drill  
1 x set of 3 spacer bushes

**Description** **Part No.**  
Hydraulic Puncher Type AEP-1 02110  
complete with hand pump.

**Contents:**

1 x Hand Puncher  
1 x 19mm Screw (tie bolt)  
1 x 19 x 9.5mm Screw (tie bolt)  
1 x HSS 11mm pre-drill  
1 x set of 3 spacer bushes

**Description** **Part No.**  
Hydraulic Puncher Type AEP-1 02120  
complete with foot pump.

**Contents:**

1 x Hand Puncher  
1 x 19mm Screw (tie bolt)  
1 x 19 x 9.5mm Screw (tie bolt)  
1 x HSS 11mm pre-drill  
1 x set of 3 spacer bushes

**Rail Cutting**

**Description** **Part No.**  
Universal Rail Cutting + Punching Tool 03002  
cuts 'G' rail, 35 x 5/35 x 15/15 x 5.2mm din rail and 10 x 3mm copper busbar.  
Cuts 5.5 or 6mm slotted vertical/horizontal holes

**Slotted Trunking Cutter**

**Description** **Part No.**  
PVC Slotted Trunking Hand Cutter 031920  
cuts up to 125mm wide trunking and cover

**Standard – Round Punch and Die System**

Tie-Bolt Thread	Size	Punch Part No.	Die Part No.
9.5mm	16.2	01011	01012
9.5mm	18.6 (PG11)	01023	01024
9.5mm	20.4 (PG13)	01035	01036
9.5mm	22.5 (PG16)	01047	01048
9.5mm	25.4	01059	01060
9.5mm	28.3 (PG21)	01071	01072
19mm	28.3 (PG21)	01075	01076
19mm	30.5	01096	01095
19mm	32.5	01107	01108
19mm	37.0 (PG29)	01131	01132
19mm	40.5	01151	01152
19mm	47.0 (PG36)	01167	01168
19mm	51	01179	01180
19mm	54.0 (PG42)	01191	01192
19mm	60.0 (PG48)	01203	01204
19mm	63.5	01211	01212
19mm	68	01243	01244
19mm	70	01223	01224
19mm	75.5	01227	01228
19mm	80	01247	01248

For larger sizes we generally recommend the use of our hydraulic equipment AEP-1. For this you require:

**AEP-1**

**Description** **Part No.**  
Hydraulic Screw 28,3 x 155 mm 01398  
and Disc No 7 01419

Tie-Bolt Thread	Size	Punch Part No.	Die Part No.
19mm	89	01251	01252
19mm	92	01253	01254

Screw made of high – alloy steel for heavy duty applications.

**Description** **Part No.**  
Set of spacer bushes 02004

## Weidmüller Tools



Slotted screwdriver with rounded blade SD DIN 5265, ISO 2380/2, output to DIN 5264, ISO 2380/1. ChromTop Tip, SoftFinish grip.

**Tristar Plus – Punch & Die System for Steel ST.37 & Stainless Steel**

Size	Thread	Punch Part No.	Die Part No.
M16	11.1mm	01657	01658
M20	11.1mm	01607	01608
M25	11.1mm	01660	01661
M32	19mm	01663	01664
M40	19mm	01666	01667
M50	19mm	01669	01670
M63	19mm	01672	01673

Tri-star plus punch & dies are 11.1mm screw size.

**Complete Punch & Die Sets**

**Description** **Part No.**  
Punch & Die set with 7 sizes 16 – 63mm 01757  
Contents: 16 – 20 – 25 – 32 – 40 – 50 – 63mm

**Square Punch & Die Sets**

Size mm	Description	Part No.
46 x 46	Sheet Steel thickness 3 mm	01305
92 x 92	Sheet Steel thickness 3 mm	01309
138 x 138	Sheet Steel thickness 3 mm	01311

Other sizes and types available on request.

**Ball Bearing Screws KL**

Size mm	Part No.
9.5 x 50	01339
19 x 55	01340

**Spare Parts**

Description	Part No.
19mm Tie bolt	02002
19 x 9.5mm Tie bolt	02003
*19 x 9.5mm Tie bolt	02010
19 x 11.1mm Tie bolt (Tristar Plus up to 22.5mm)	02007
*19 x 11.1mm Tie bolt (Tristar Plus up to 22.5mm)	02011

9.5 x 75 Tie bolt	02009
Set of Spacer bushes	02004

Description	Part No.
Tie Bolt for Square punch and die 01344	
Hole punch c/w carrying case & 7 punch & die sets	01758



1

**APPROVED  
DISTRIBUTOR**

## COMBI Junction Boxes Clever. Useful. Strong.

The proven **WISKA COMBI** junction boxes are ideally suited for indoor and outdoor installations and meet the most demanding customer requirements by combining the highest expertise in plastic engineering with their unique design.

### The full benefits of the range

- 1 Flexible installation space:** 10 % more space inside thanks to the distinctive bellied cover.
- 2 Faster installation:** Quarter-turn quick-release fasteners + mounting plate to fix junction box to cable tray.
- 3 Unique design:** with ribbed corners for more stability and IP 66 / 67 combined threaded and membrane entries.
- 4 Engineered plastic:** Shatter-proof, impact resistant and weatherproof, the dual material construction is UV-resistant, flame-retardant and halogen-free.
- 5 A comprehensive range of SIX box sizes available.**
  - ▲ Anti-tamper facility, accessories and junction boxes for special applications are also available.



### The WISKA COMBI Family

<b>COMBI 108</b>	76 x 76 x 51 mm
<b>COMBI 308</b>	85 x 85 x 51 mm
<b>COMBI 407</b>	95 x 95 x 60 mm
<b>COMBI 607</b>	110 x 110 x 66 mm
<b>COMBI 1010</b>	140 x 140 x 82 mm
<b>COMBI 1210</b>	160 x 140 x 81 mm

# Ingress Protection Guide – IP Ratings

## First number

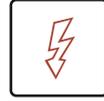
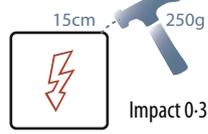
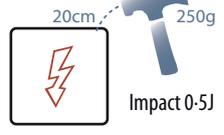
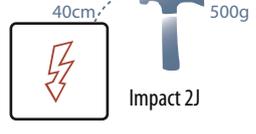
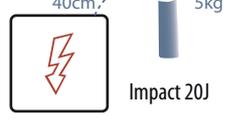
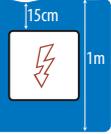
Protection against solid objects

## Second number

Protection against liquids

## Third number

Protection against mechanical impacts

First number	Second number	Third number
Protection against solid objects	Protection against liquids	Protection against mechanical impacts
0  No Protection	0  No Protection	0  No Protection
1  Protected against Solid objects up to 50mm, e.g. accidental touch by hands	1  Protected against vertically falling drops of water e.g. Condensation	1  Impact 0-225J
2  Protected against solid objects up to 2mm, e.g. fingers	2  Protected against direct sprays of water up to 15° from the vertical	2  Impact 0-375J
3  Protected against solid objects up to 0-5mm (tools & wires)	3  Protected against sprays to 60° from the vertical	3  Impact 0-5J
4  Protected against solid objects over 1mm (tools, wires & small wires)	4  Protected against water sprayed from all directions – limited Ingress permitted	5  Impact 2J
5  Protected against dust – limited ingress (no harmful deposit)	5  Protected against low pressure jets from all directions – limited ingress permitted	7  Impact 6J
6  Totally protected against dust	6  Protected against strong jets of water eg. for use on ship decks – limited Ingress permitted	9  Impact 20J
<b>Rating Example</b> <div style="display: flex; align-items: center; gap: 10px;"> <div style="border: 1px solid black; padding: 5px; font-size: 2em;">IP</div> <div style="border: 1px solid black; padding: 5px; font-size: 2em;">6</div> <div style="border: 1px solid black; padding: 5px; font-size: 2em;">7</div> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px; display: inline-block;">Ingress Protection</div>		<b>7</b>  Protected against the effects of immersion between 15cm & 1m
		<b>8</b>  Protected against long periods of immersion under pressure

Refer to Standards  
IEC 144 (BS 54 20)  
IEC 522 (BS 54 91)

### Tongun IP65 Enclosures



All enclosures are supplied with base plate, mounting brackets and traingular lock(s)

Dimensions	Material	Part No.
280 x 210 x 130mm	ABS	TNPLS1282113
330 x 250 x 140mm	ABS	TNPLS1332514
400 x 300 x 170mm	ABS	TNPLS1403017
500 x 400 x 180mm	ABS	TNPLS 500 X 400 X 180
600 x 400 x 200mm	ABS	TNPLS 600 X 400 X 200



Dimensions	Material	Part No.
600 x 400 x 220mm	GRP	TNW6422
800 x 500 x 270mm	GRP	TNW8527



#### GRP - Transparent Door Enclosures.

Dimensions	Material	Part No.
400 x 300 x 210mm	GRP	TNW4321PLX
600 x 400 x 220mm	GRP	TNW6422PLX

#### Accessories.

Description	Part No.
120 x 120mm inspection window	PM - 00
Key Lock	TNL

### Wiska Boxes

#### Combi 108/5

**Description** Part No.  
Waterproof Junction Box up to 2.5mm<sup>2</sup> 10060523  
10 elastic self sealing membranes (clamping range 3-14mm)  
Cable entry without mechanical devices. Includes 5 pole screw terminal 2.5mm<sup>2</sup>. 76mm x 76mm x 51mm



#### Combi 308/5

**Description** Part No.  
Waterproof junction box up to 4mm<sup>2</sup>. 10060401  
8 elastic self sealing cable inlets (clamping range 3-12mm)  
Integrated M 20 threads, no locknuts needed.  
4 fastening locknuts in the cover. Includes 5 pole screw terminal 4mm<sup>2</sup>. 85mm x 85mm x 51mm.



#### Combi 607/5

**Description** Part No.  
Waterproof junction box up to 6mm<sup>2</sup>. 10060532  
7 elastic self-sealing cable-inlets at the side and 3 self-sealing cable inlets in the base (clamping range 3-17mm). Integrated M 25 threads, no locknuts needed.  
4 fastening locknuts in the cover. Includes 5 pole screw terminal 6mm<sup>2</sup>. 110mm x 110mm x 66mm.

#### Combi 308/5 Black

**Description** Part No.  
Waterproof junction box up to 4mm<sup>2</sup>. 10060580  
8 elastic self sealing cable inlets (clamping range 3-12mm)  
Integrated M 20 threads, no locknuts needed.  
4 fastening locknuts in the cover. Includes 5 pole screw terminal 4mm<sup>2</sup>. 85mm x 85mm x 51mm.

#### Combi 1010/5

**Description** Part No.  
Waterproof junction box up to 10mm<sup>2</sup>. 10060703  
10 knockout cable entries from M20 up to M32.  
Ingress protection IP 66 while using the IP 68 cable gland, ESKV together with the locknut EMUG  
4 fastening locknuts in the cover. Includes 5 pole screw terminal 10mm<sup>2</sup>. 140mm x 140mm x 82mm.



#### Combi 407/5

**Description** Part No.  
Waterproof Junction Box up to 4mm sq. 10105596  
8 elastic self sealing cable inlets (clamping range 3-12mm)  
Integrated M20/M25 threads, no locknuts needed.  
4 fastening locknuts in the cover. Includes 5 Pole screw terminal 4mm sq. 95 x 95 x 60mm

#### Combi 1610

**Description** Part No.  
Waterproof Junction Box up to 16mm<sup>2</sup> 10062707  
14 knockout cable entries from M20 up to M40  
Ingress Protection IP65  
4 Stainless Steel Lid screws in the cover  
180mm x 180mm x 91mm.



#### KA 6

**Description** Part No.  
IP54 Thermoplastic Enclosure 1.5mm<sup>2</sup> with 2 10060818  
external located mounting feet and self-sealing, cutable inlets for cable from 7-13mm<sup>2</sup>, 10 at the side and 2 in the bottom.  
92mm x 44mm x 41mm.



#### KA12/5

**Description** Part No.  
IP54 Thermoplastic Enclosure 2.5mm<sup>2</sup> with 2 10060821  
external located mounting feet and self-sealing, cutable inlets for cable from 7-13mm, 10 at the side and 1 in the bottom.  
Includes 5 pole screw terminal 2.5mm<sup>2</sup>.  
80mm x 80mm x 39mm.



### IP65 Polycarbonate Enclosures

Dimensions	Part No.
100 x 100 x 50mm	005.PL
150 x 110 x 70mm	008.PL
190 x 140 x 70mm	009.PL
240 x 190 x 90mm	010.PL
300 x 220 x 120mm	012.PL
380 x 300 x 120mm	014.A.PL

### IP65 Polycarbonate Enclosures with Grommet entries

Dimensions	Part No.
100 x 100 x 50mm	005
150 x 110 x 70mm	008
190 x 140 x 70mm	009
240 x 190 x 90mm	010
300 x 220 x 120mm	012
380 x 300 x 120mm	014.A

**APHaslam Ltd**  
Authorised 3rd party assembly service

*ATEX Certified EExe Junction boxes, available in polyester, aluminium, mild and stainless steel.*

Contact our Sales office on 01 453 2522 for further information.

Plastim Enclosures



PLASTIM DISTRIBUTION BOARDS – GREY DOOR

**PLASTIM DISTRIBUTION BOARDS – GREY DOOR**

**Main Technical Features**

- Resistance: Chemical agents, alkali, oils, salts, etc.
- Rated Voltage: Up to 690V
- Maximum Current: Up to 800A
- Operating Temperature: -35°C + 65°C
- Material: HB ABS Halogen Free
- Mounting Plate: Galvanised steel 1mm
- IP Degree: IP65
- IK Degree: IK08
- Colour: RAL7035 Grey (Other colours on request)
- CE RoHS

CODE	L (mm)	W (mm)	H (mm)	WEIGHT(kg)
PP3001	200	300	130	1.80
PP3002	250	350	150	2.40
PP3004	300	400	170	3.00
PP3005	300	400	220	3.40
PP3006	350	500	190	4.35
PP3007	400	500	240	5.40
PP3008	400	600	200	4.50
PP3010	500	700	250	5.85
PP3021	600	800	260	9.70
PP3003	400	500	175	10.80



PLASTIM DISTRIBUTION BOARDS – TRANSPARENT DOOR

**PLASTIM DISTRIBUTION BOARDS – TRANSPARENT DOOR**

**Main Technical Features**

- Resistance: Chemical agents, alkali, oils, salts, etc.
- Rated Voltage: Up to 690V
- Maximum Current: Up to 800A
- Operating Temperature: -35°C + 65°C
- Material: HB ABS Halogen Free + Polycarbonate (Doors)
- Mounting Plate: Galvanised steel 1mm
- IP Degree: IP65
- IK Degree: IK08
- Colour: RAL7035 Grey body, transparent door (Other colours on request)
- CE RoHS

CODE	L (mm)	W (mm)	H (mm)	WEIGHT(kg)
PP3011	200	300	130	1.80
PP3012	250	350	150	2.40
PP3014	300	400	170	3.00
PP3015	300	400	220	3.40
PP3016	350	500	190	4.35
PP3017	400	500	240	5.40
PP3018	400	600	200	4.50
PP3020	500	700	250	5.85
PP3022	600	800	260	9.70
PP3013	400	500	175	10.80



MODULAR DISTRIBUTION BOARDS – GREY DOOR

**MODULAR DISTRIBUTION BOARDS – GREY DOOR**

**Main Technical Features**

- Resistance: Chemical agents, alkali, oils, salts, etc.
- Rated Voltage: Up to 690V
- Maximum Current: Up to 800A
- Operating Temperature: -35°C + 65°C
- Material: HB ABS Halogen Free
- IP Degree: IP65
- IK Degree: IK08
- Colour: RAL7035 Grey (Other colours on request)
- CE RoHS

CODE	L (mm)	W (mm)	H (mm)	MCB Qty	WEIGHT(kg)
PP3102	250	350	150	18 (9x2)	2.50
PP3104	300	400	170	24 (12x2)	3.40
PP3106	350	500	190	45 (15x3)	4.50
PP3108	400	600	200	60 (15x4)	6.00



MODULAR DISTRIBUTION BOARDS – TRANSPARENT DOOR

**MODULAR DISTRIBUTION BOARDS – TRANSPARENT DOOR**

**Main Technical Features**

- Resistance: Chemical agents, alkali, oils, salts, etc.
- Rated Voltage: Up to 690V
- Maximum Current: Up to 800A
- Operating Temperature: -35°C + 65°C
- Material: HB ABS Halogen Free + Polycarbonate (Doors)
- IP Degree: IP65
- IK Degree: IK08
- Colour: RAL7035 Grey body, transparent door (Other colours on request)
- CE RoHS

CODE	L (mm)	W (mm)	H (mm)	MCB Qty	WEIGHT(kg)
PP3112	250	350	150	18 (9x2)	2.50
PP3114	300	400	170	24 (12x2)	3.40
PP3116	350	500	190	45 (15x3)	4.50
PP3118	400	600	200	60 (15x4)	6.00

### Weidmüller K Range Die Cast Aluminium Enclosures



Material – High Quality Aluminium Alloy.  
Finish – Smooth Natural.  
Ingress Protection – IP65/66.

Type	Dimensions	Part No.
K0	45 x 45 x 34	0573200000
K01	64 x 58 x 34	1565240000
K02	64 x 98 x 34	1565250000
* K1	70 x 70 x 40	0342000000
K11	80 x 75 x 58	0573300000
* K2	70 x 100 x 40	0342100000
K21	80 x 125 x 58	0573400000
* K3	70 x 165 x 40	0342200000
K31	80 x 175 x 58	0573500000
K32	80 x 250 x 52	1565260000

Type	Dimensions	Part No.
* K4	82 x 130 x 72	0342300000
K41	81 x 120 x 122	1565270000
* K5	91 x 130 x 170	0342400000
K51	81 x 120 x 220	1565280000
K52	91 x 160 x 160	1565290000
* K6	160 x 200 x 101	0342500000
K61	160 x 260 x 91	0573600000
* K7	160 x 350 x 101	0342600000
K71	280 x 230 x 111	0573700000
K72	230 x 400 x 111	1565300000
K8	160 x 585 x 100	0351200000
K81	310 x 400 x 111	0573800000

\* Standard stocked items.

### Weidmüller Kestrel Polyester Enclosures



Material – GRP. Finish – Black RAL 9001.  
Ingress Protection – IP66.

Type	Dimensions	Part No.
KE 1	75 x 80 x 60	9510210000
KE 2	75 x 100 x 60	9510220000
KE 3	75 x 160 x 60	9510320000
KE 31	75 x 190 x 60	9510330000
KE 4	120 x 125 x 95	9510230000
KE 5	120 x 220 x 95	9510240000
KE 51	160 x 160 x 95	9510250000
KE 6	160 x 260 x 95	9510260000
KE 7	160 x 360 x 95	9510270000
KE 8	250 x 255 x 125	9510280000
KE 9	250 x 400 x 125	9510290000
KE 10	450 x 400 x 125	9510310000

### Weidmüller TB Stainless Steel Enclosures



**Weidmüller TB MH Multi Hinge Stainless Steel Enclosures. IP 66/67**  
Stainless Steel Enclosures for use in areas exposed to explosion hazards.  
The MH Enclosures are fitted with a completely removable hinged lid.

Type/Dimensions	Description	Number of Gland Plates	Part No.
<b>229 x 152 x 133mm</b>			
KTB MH 221513 S4E1	Stainless Steel	1	1194560000
KTB MH 221513 S4E2	Stainless Steel	2	1194570000
KTB MH 221513 S4E3	Stainless Steel	3	1194580000
KTB MH 221513 S4E4	Stainless Steel	4	1194590000
<b>306 x 306 x 150mm</b>			
KTB MH 303015 S4E1	Stainless Steel	1	1194710000
KTB MH 303015 S4E2	Stainless Steel	2	1194720000
KTB MH 303015 S4E3	Stainless Steel	3	1194730000
KTB MH 303015 S4E4	Stainless Steel	4	1194740000
<b>458 x 382 x 150mm</b>			
KTB MH 453815 S4E1	Stainless Steel	1	1195010000
KTB MH 453815 S4E2	Stainless Steel	2	1195020000
KTB MH 453815 S4E3	Stainless Steel	3	1195030000
KTB MH 453815 S4E4	Stainless Steel	4	1195040000
<b>762 x 508 x 150mm</b>			
KTB MH 765015 S4E1	Stainless Steel	1	1195410000
KTB MH 765015 S4E2	Stainless Steel	2	1195420000
KTB MH 765015 S4E3	Stainless Steel	3	1195430000
KTB MH 765015 S4E4	Stainless Steel	4	1195440000
<b>914 x 610 x 200mm</b>			
KTB MH 916120 S4E1	Stainless Steel	1	1195560000
KTB MH 916120 S4E2	Stainless Steel	2	1195570000
KTB MH 916120 S4E3	Stainless Steel	3	1195580000
KTB MH 916120 S4E4	Stainless Steel	4	1195590000



**Weidmüller TB QL Quarter Lock Stainless Steel Enclosures. IP 66/67**  
Stainless Steel Enclosures for use in areas exposed to explosion hazards.  
The QL Enclosures are fitted with a quick locking hinged lid.

Type/Dimensions	Description	Number of Gland Plates	Part No.
<b>229 x 152 x 133mm</b>			
KTB QL 221513 S4E1	Stainless Steel	1	1199860000
KTB QL 221513 S4E2	Stainless Steel	2	1199870000
KTB QL 221513 S4E3	Stainless Steel	3	1199880000
KTB QL 221513 S4E4	Stainless Steel	4	1199890000
<b>306 x 306 x 150mm</b>			
KTB QL 303015 S4E1	Stainless Steel	1	1200020000
KTB QL 303015 S4E2	Stainless Steel	2	1200030000
KTB QL 303015 S4E3	Stainless Steel	3	1200040000
KTB QL 303015 S4E4	Stainless Steel	4	1200050000
<b>458 x 382 x 150mm</b>			
KTB QL 453815 S4E1	Stainless Steel	1	1200340000
KTB QL 453815 S4E2	Stainless Steel	2	1200350000
KTB QL 453815 S4E3	Stainless Steel	3	1200360000
KTB QL 453815 S4E4	Stainless Steel	4	1200370000
<b>762 x 508 x 150mm</b>			
KTB QL 765015 S4E1	Stainless Steel	1	1200780000
KTB QL 765015 S4E2	Stainless Steel	2	1200790000
KTB QL 765015 S4E3	Stainless Steel	3	1200810000
KTB QL 765015 S4E4	Stainless Steel	4	1200820000
<b>914 x 610 x 200mm</b>			
KTB QL 916120 S4E1	Stainless Steel	1	1200950000
KTB QL 916120 S4E2	Stainless Steel	2	1200960000
KTB QL 916120 S4E3	Stainless Steel	3	1200970000
KTB QL 916120 S4E4	Stainless Steel	4	1200980000

## Schrack – Wall Mounting Enclosures



## Single door to IP66 / Double door to IP55

Powder Coated RAL7035

2.5mm mild steel, galvanised mounting plate included

Dimensions	Part No.
250 x 200 x 155	WSM2520150
300 x 250 x 155	WSM3025150
300 x 250 x 210	WSM3025210
300 x 300 x 155	WSM3030150
300 x 300 x 210	WSM3030210
350 x 250 x 155	WSM3525150
400 x 300 x 150	WSM4030150
400 x 300 x 210	WSM4030210
400 x 400 x 210	WSM4040210
400 x 600 x 210	WSM4060210
500 x 400 x 155	WSM5040150
500 x 400 x 210	WSM5040210
500 x 400 x 260	WSM5040260
500 x 500 x 210	WSM5050210
500 x 500 x 300	WSM5050300
600 x 400 x 155	WSM6040150
600 x 400 x 210	WSM6040210
600 x 400 x 260	WSM6040260
600 x 500 x 155	WSM6050150
600 x 500 x 210	WSM6050210
600 x 500 x 260	WSM6050260
600 x 500 x 300	WSM6050300
600 x 600 x 210	WSM6060210
600 x 600 x 300	WSM6060300
700 x 500 x 210	WSM7050210
700 x 500 x 260	WSM7050260
800 x 600 x 210	WSM8060210
800 x 600 x 260	WSM8060260
800 x 600 x 300	WSM8060300
800 x 800 x 210	WSM8080210
800 x 800 x 300	WSM8080300
1000 x 600 x 260	WSM1006260
1000 x 600 x 300	WSM1006300
1000 x 800 x 260	WSM1008260
1000 x 800 x 300	WSM1008300
1000 x 800 x 400	WSM1008400
1200 x 600 x 300	WSM1206300
1200 x 800 x 300	WSM1208300
1200 x 800 x 400	WSM1208400
600 x 800 x 300	WSM6080300
800 x 1200 x 300	WSM8012302
1000 x 1000 x 300	WSM1010302
1200 x 1000 x 300	WSM1210302
1200 x 1200 x 300	WSM1212302
1200 x 1200 x 400	WSM1212402
1400 x 1000 x 300	WSM1410302



## Schrack IP40 Modular Enclosures c/w Hinged cover

Description	Dimensions H x W x D	Part No.
8 module	235 x 286 x 110	BK080100
12 module	235 x 286 x 110	BK080101
24 module	335 x 286 x 110	BK080102
36 module	485 x 286 x 110	BK080103

## Neutral and Earth Bar

Description	Dimensions	Part No.
Neutral/Earth bar	12 way x 2	BK080098

## Modular Chassis

Enclosure Type	Part No.	Rows	Modules
300 x 250	WSMIE03025	2	16
400 x 300	WSMIE04030	3	33
500 x 400	WSMIE05040	3	48
600 x 400	WSMIE06040	4	64
600 x 600	WSMIE06060	4	108
700 x 500	WSMIE07050	5	110
800 x 600	WSMIE08060	6	162

\*Other sizes available on request

## Ventilation Flanges, Locks, Inserts and Fixing Brackets

Description	Part No.	PU	Type
210 x 96 W x H	WSVF0001	1	A
310 x 96 W x H	WSVF0002	1	B
410 x 96 W x H	WSVF0003	1	C
510 x 96 W x H	WSVF0004	1	D

Description	Part No.	
Triangular lock insert 8mm	GDZN	1
Insert, square, 8 mm	WSSL3525	1
Standard DIN 5 mm lock	WSSL3532	1
Cylinder lock No. EK333	WSSL3844	1
Wall-fixing brackets, galvanised	WSMWB004	





**Glass Fibre Reinforced Polyester Cabinets  
– Minipol/Maxipol/Combiester Systems**

**Contact our Sales office on 01 453 2522  
for further information.**

## Schrack – KS Range



## Schrack – KS Range – Floor Mounting Cabinets

RAL 7035, Single Door IP66, Double Door IP55.

Frame: Sheet Steel 1.5mm, Doors Sheet Steel 2mm.

Mounting Plate included. (Galvanised Sheet Steel 3mm)

Description	Dimensions	Part No.
Floor Enclosure	1400 x 600 x 300	KS146030
Floor Enclosure	1400 x 600 x 400	KS146040
Floor Enclosure	1600 x 600 x 400	KS166040
Floor Enclosure	1600 x 800 x 300	KS168030
Floor Enclosure	1600 x 800 x 400	KS168040
Floor Enclosure	1600 x 1000 x 300	KS161030
Floor Enclosure	1600 x 1000 x 400	KS161040
Compact Enclosure 2T*	1600 x 1000 x 400	KS161042
Floor Enclosure	1600 x 1200 x 400	KS161242
Compact Enclosure	1800 x 800 x 300	KS188030
Compact Enclosure	1800 x 800 x 400	KS188040
Compact Enclosure	1800 x 800 x 500	KS188050
Compact Enclosure	1800 x 1000 x 400	KS181040
Compact Enclosure 2T*	1800 x 1000 x 400	KS181042
Compact Enclosure 2T*	1800 x 1200 x 400	KS181242
Compact Enclosure 2T*	1800 x 1600 x 400	KS181642
Compact Enclosure	2000 x 600 x 400	KS206040
Compact Enclosure	2000 x 800 x 300	KS208030
Compact Enclosure	2000 x 800 x 400	KS208040
Compact Enclosure	2000 x 800 x 500	KS208050
Compact Enclosure	2000 x 1000 x 400	KS201040
Compact Enclosure 2T*	2000 x 1000 x 400	KS201042
Compact Enclosure 2T*	2000 x 1200 x 400	KS201242
Compact Enclosure 2T*	2000 x 1600 x 400	KS201642

\*2T = double door

## Plinths – 100mm high

Example: 800 x 400mm cabinet = 1 x ASSOB081 + ASSOT041

To suit cabinet Width/Depth Section	To suit base mm	Part No.
Depth Section	400 deep	ASSOT041
Depth Section	500 deep	ASSOT051
Depth Section	600 deep	ASSOT061
Width Section	400 wide	ASSOB041
Width Section	600 wide	ASSOB061
Width Section	800 wide	ASSOB081
Width Section	1000 wide	ASSOB101
Width Section	1200 wide	ASSOB121

for 1600 wide, please order 2 x ASSOB081

## Schrack – 2 &amp; 4 Mod Enclosures



## Wall mounting plastic enclosure

Description	Part No.
1-row, 2MW, w/o door, IP40	IM009010
1-row, 4MW, w/o door, IP40	IM009011

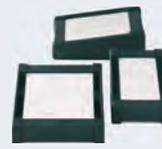
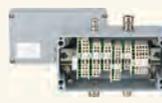
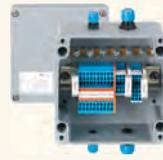
Through **AP Haslam**, Multi-Box offers a wide range of solutions over four categories of enclosures: Plastic, Aluminium, Ex Enclosures and Special.

## Product overview

<h3>Plastic Enclosures</h3> <ul style="list-style-type: none"> <li>• ABS</li> <li>• Polycarbonate</li> <li>• GRP Polyester</li> <li>• Polystyrene</li> <li>• Noryl</li> </ul>	<b>MBP</b> <i>From: 80 x 55 (l x h)            To: 600 x 120 (l x h)            Dims in mm</i> 	<b>MBM</b> <i>Over 30 sizes available</i> 	<b>MBT</b> <i>Over 30 sizes available</i> 	<b>MBT / Series 2000</b> 	<b>MBT / Multi-Color</b> 
	<b>MBPO-ST</b> 	<b>MBRCA</b> 	<b>MBRC2</b> 	<b>MBS</b> <i>From: 48 x 60.5 (l x h)            To: 144 x 163 (l x h)            Dims in mm</i> 	<b>MBEU</b> 
	<b>MBT / Membrane-Recess</b> 	<b>MACRO-TAST and DUO-BOX</b> 	<b>ALPHA-BOX</b> 	<b>QUADRO-BOX</b> 	<b>MBPO</b> 
	<b>MBZA</b> 	<b>MBRE</b> 	<b>MBRS 19</b> 	<b>MEBO</b> 	<b>MBMO</b> 

Multi-Box products come in a wide range of sizes and colours. In conjunction with **AP Haslam** they can manufacture solutions for whatever your needs.

## Product overview

<h3>Aluminium Enclosures</h3> <ul style="list-style-type: none"> <li>• Die Casting</li> <li>• Gravity Casting</li> <li>• Extruded Profiles</li> </ul>	<b>MBA</b> <i>From: 50 x 30 (L x h)</i> <i>To: 600 x 180 (L x h)</i> <i>Dims in mm</i>	<b>DELTA-BOX</b>	<b>TAST</b>	<b>MINI-TAST</b>	<b>MBAS</b>
					
	<b>MBAL</b>	<b>KDCA</b>	<b>MBCA</b>	<b>ETP</b>	
					
<h3>Ex Enclosures</h3> <ul style="list-style-type: none"> <li>• GRP Black Aluminium</li> <li>• EX - empty</li> <li>• EX - e</li> <li>• EX - i</li> </ul>	<b>Ex-empty</b>	<b>Ex-e</b>	<b>Ex-i</b>		
					
<h3>Special Enclosures</h3>	<b>Plastics and Aluminium</b>	<b>Customisation</b>			
		<ul style="list-style-type: none"> <li>• Hole Punching-Milling-Drilling-Threading</li> <li>• Silk Screen &amp; Pad Printing-Engraving-Colours</li> <li>• EMC Shielding</li> <li>• Custom Moulds</li> </ul>			

## DOMESTIC



### ENCLOSURES FOR DOMESTIC APPLICATION

Flush and surface mounting enclosures

- 1 – 4 row, with brass terminal and supports for neutral and earth connection
- IP55 enclosures with transparent door
- 1 row for 3, 5, 8, 12 and 13 modules
- 2 rows for 24 and 3 rows for 36 modules

With brass terminal and supports for neutral and earth connection

Flush and surface mounting distribution boxes

- 4 – 18 way TPN
- British standard boards ILDB



### RESIDUAL CURRENT DEVICES

BC series

- 2 and 4 poles; 25A – 100A; 30mA, 100mA, 300mA
- in accordance with EN/IEC 61008

Residual Current Relays

- 4 poles; 300mA or 1A
- Combined RCD/MCB devices (RCBOs)
- 2 poles; 6A – 40A; 30mA, 100mA and 300mA



### MCB's

4,5 kA series ( according to EN/IEC 60898 )

- characteristic C; 1, 2, 3, poles; 6 – 40A

6 kA series ( according to EN/IEC 60898 )

- characteristic B and C, 1, 2, 3, 3+N poles; 6 – 63 A

10 kA series ( according to EN/IEC 60898 )

- characteristic B, C and D, 1, 1+N, 2, 3, 3+N, 4 poles; 0,5 – 63 A

15 kA series ( according to EN/IEC 60947-2 )

- characteristic C and D, 1, 2, 3, 3+N, poles; 80 A, 100A, 125A

Accessories

- auxiliary contact, tripping signal contact, UV release, shunt trip



### ISOLATORS

On/Off switches BZ series

- 1, 2, 3 and 3+N poles
- 40A, 63A, 80A, 100A and 125A
- in accordance with EN/IEC 60947-3



### SURGE VOLTAGE PROTECTION

for TN-C, TT, IT and TN-S System

- Surge Arrester B ( B/C), Protec 25 kA series
- Surge Arrester B/C, Combtec 12,5 kA series
- Surge Arrester C, Vartec 15 – 20 kA series
- Surge Arrester D, AD2 2,5 kA

## INDUSTRY



### ENCLOSURES FOR INDUSTRIAL APPLICATION

Wall mounting enclosures WSM

- from 200 x 200 x 155 to 1400 x 1000 x 300

Floor mounted enclosures KS

- from 1400 x 600 x 300 to 2000 x 1600 x 400

Modular enclosures AS

- from 1800 x 600 x 400 to 2200 x 1200 x 600

Polyester enclosures Minipol

- from 300 x 250 x 140 to 800 x 600 x 300

Polyester enclosures Maxipol

- from 500 x 500 x 312 to 1500 x 1250 x 312

MCCB boards ILMC



### MCCB's AND ACB's

Moulded case circuit breakers

- 3 and 4 pole breakers, 25A – 2000A
- short circuit breaking capacity: 25kA, 50kA, 100kA, 150kA
- fixed or draw out type
- wide range of internal and external accessories

Air circuit breakers

- 3 and 4 pole breakers, 630 A – 6300A
- short circuit breaking capacity: 50kA, 65kA, 80kA, 100kA, 150kA
- fixed and draw out type
- wide range of internal and external accessories



### FUSE MATERIAL HRC

HRC fuse switch disconnectors

- size 00, 1, 2 and 3; 6 A to 630 A
- for panel-mounting or busbar-mounting

Vertical fuse switch disconnectors

- size 00, 1, 2 and 3, 6 A to 630A
- for 60mm, 100mm and 185mm busbar system

Panel-mounting fuse bases

- size D0, D01 and D02; 2A to 63A

Fuse carriers

- for cylindrical cartridge fuses
- for cylindrical fuses



### CONTACTORS AND MOTORPROTECTION

Mini Contactors relays

- 10A; 4 poles, 24 V or 230 VAC

Mini Contactors

- 25A, 3 poles + aux. contact; 24 VAC/DC or 230 V AC

Power Contactors

- 10A – 1200A AC3, 4 – 650 kW AC3

Modular Contactors

- 2 and 4 pole; 20 A, 25 A, 40 A and 63 A

D.O.L. Starters

- 4 kW, 7,5 kW, 11kW and 15kW

Motorprotection

- 0,12 A – 120 A



### RELAYS

Miniature relay PT

- 2,3 or 4 C/O contacts; 6A, 10A or 12A
- AC and DC coils, plug in, soldered or PCB connection

Multimode relay MT

- 2 or 3 C/O contacts, 4A or 10A
- AC or DC coils

Power relay RM

- 2 or 3 C/O contacts, 10A or 16A
- AC or DC coils

Power PCB relays

- 1 or 2 C/O contacts, 8A, 12A or 16 A
- AC or DC coils

## NETWORK TECHNOLOGY



### NETWORK ENCLOSURES

Free standing data enclosures DS

- Available heights: 15 to 45 U
- Widths: 600 and 800mm
- Depths: 600, 800, 900 and 1000

Wall mounting data enclosures MONOBLOCK DS

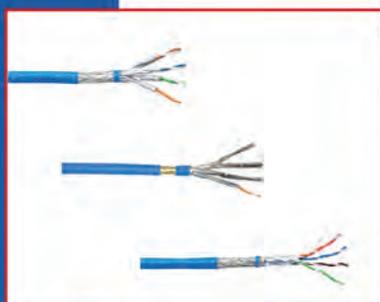
- Depths : 395 mm
- from 600 x 280 x 395 to 600 x 900 x 395

Wall mounting data enclosures DUALBLOCK DW

- Depths : 515 mm
- from 600 x 370 x 515 to 600 x 900 x 515

19" SYSTEM RACK

10" SYSTEM SOHO



### COPPER CABLES

Copper installation cable Cat 5e unshielded and shielded

Copper installation cable Cat 6 unshielded and shielded

Copper installation cable SFTP Cat 8 1500 MHz

Copper installation cable SFTP Cat 7A 1300 MHz

Copper installation cable SFTP Cat 7 1000 MHz



### FIBRE OPTIC

UNIVERSAL CABLES; INDOOR/ OUTDOOR, WITH NON – METALLIC RODENT PROTECTION

SPLICE BOXES 19"

SPLICE BOXES , WALL MOUNT

FIBRE OPTIC PATCH CORD, DUPLEX

PRE ASSEMBLED FIBRE OPTIC CABLES

PATCH PANEL FOR PRE-ASSEMBLED OPTIC CABLES

FIBRE OPTIC SPLICE TRAY

FIBRE OPTIC PIGTAILS

FIBRE OPTIC COUPLINGS



### ACTIVE COMPONENTS

SWITCHES UNMANAGED

SWITCHES UNMANAGED 19"

SWITCHES WEB-MANAGED 19"

SWITCHES SNMP MANAGED 19"

SFP (MINI GBIC) FOR SWITCHES AND FIBRE OPTIC CONVERTER

FIBRE OPTIC CONVERTER UNMANAGED

19" ENCLOSURE FOR FIBRE OPTIC CONVERTER

INDUSTRY SWITCHES UNMANAGED AND SNMP MANAGED



### UPS

FOR SECURITY LEVEL I

- USDP 350 – 550 VA

FOR SECURITY LEVEL I

- USWP 400 – 650 VA

FOR SECURITY LEVEL I

- USND 800 – 2000 VA

FOR SECURITY LEVEL II

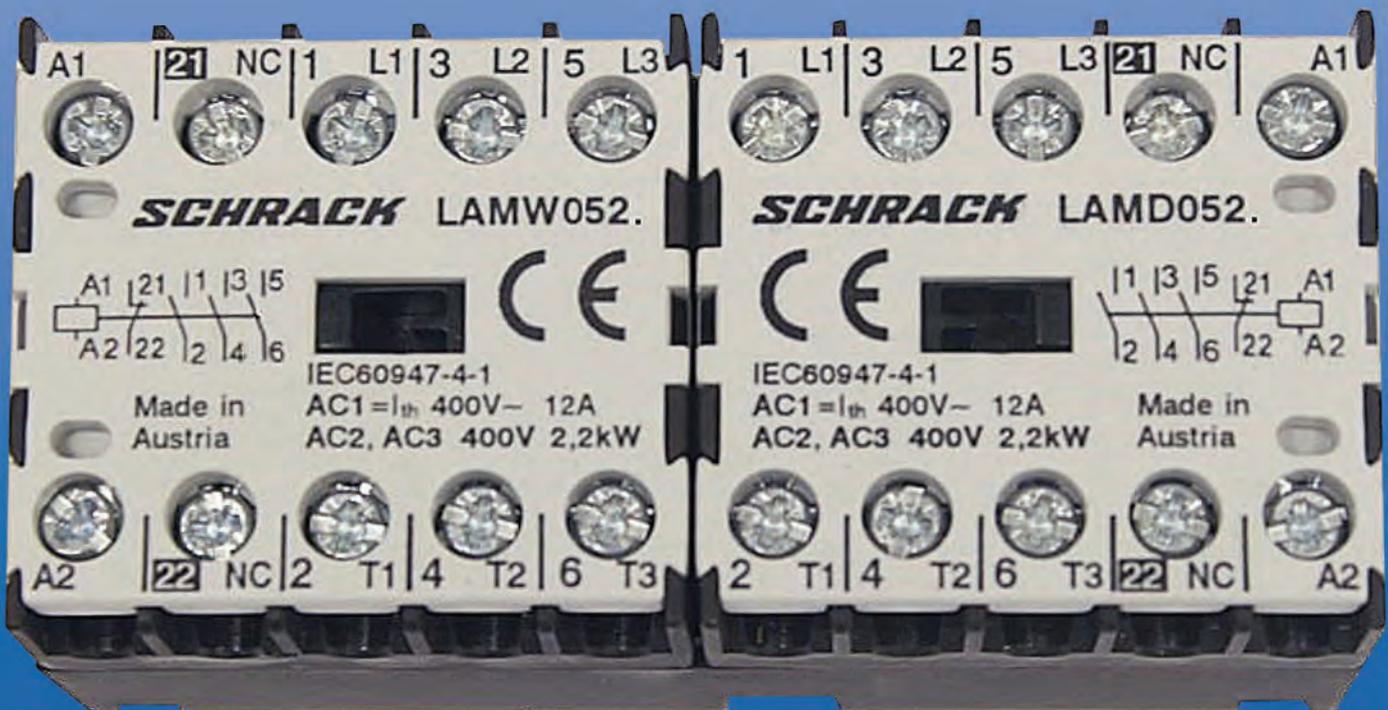
- USD 500 – 2000 VA

FOR SECURITY LEVEL III

- USDP/USDP 700 – 3000 VA



# Micro-Contactors LAM



- ✓ The contactor, as small as a relay – the smallest in the world
- ✓ > 3mm contact clearance acc. IEC60335-1 for safety-related applications
- ✓ Reversing contactors with mechanical interlock

# MICRO-CONTACTORS

## MICRO AUXILIARY CONTACTORS 4-POLE, AC OPERATED

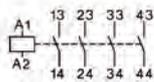


Ratings Therm.	Contacts <sup>1)</sup>	Distinc. Number	Type Additional Contact	Coil voltage	Pack pcs.	Weight kg/pc.
AC15	Rated-Current $I_{th}$ A		NO NC	0 24V 50/60Hz 3 220-240V 50Hz/60Hz		
230V A	400V A	acc. to EN50011	Blocks Type			

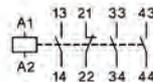
### 4-pole, With Screw Terminals

3	1,5	5	4	-	40E	-	LAMH037.	10	0,07
3	1,5	5	3	1	31E	-	LAMH038.	10	0,07
3	1,5	5	2	2	22E	-	LAMH039.	10	0,07

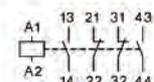
LAMH037.



LAMH038.



LAMH039.



## MICRO CONTACTORS 3-POLE, AC OPERATED



Power Ratings	Rated Current	Aux. Contacts <sup>1)</sup> Built-in	Additional	Type	Coil voltage	Pack pcs.	Weight kg/pc.
AC2, AC3 AC1					0 24V 50/60Hz 3 220-240V 50Hz/60Hz		
380V	660V						
400V	690V	440V					
415V							
kW	kW	A	NO NC	Type			

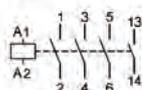
### 3-pole, With Screw Terminals

2,2	-	12	1	-	-	LAMD051.	10	0,07
2,2	-	12	-	1	-	LAMD052.	10	0,07

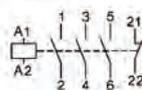
### 4polig, mit Schraubanschlüssen

2,2	-	12	-	-	-	LAMD054.	10	0,07
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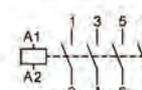
LAMD051.



LAMD052.



LAMD054.



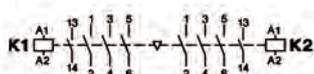
<sup>1)</sup> Contacts suitable for electronic circuits, according to EN947-5-4 for rated voltage 24V DC (test ratings 17V DC, 5mA). Positively guided contacts.

## MICRO REVERSING CONTACTORS, MECHANICAL INTERLOCKED, AC OPERATED

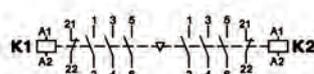


Power Ratings	Rated Current	Aux. Contacts <sup>1)</sup>		Type	Coil voltage	Pack pcs.	Weight kg/pc.
		Built-in	Additional				
AC2, AC3 380V	AC1		on left hand side Contactor	0	24V 50/60Hz		
400V 660V			on right hand side Contactor	3	220-240V 50Hz/60Hz		
415V 690V	690V	 	K1 Type				
kW kW	A	NO NC	K2 Type				
<b>3-pole, with Screw Terminals</b>							
2,2	-	12	1	-	-	LAMW051.	1 0,14
2,2	-	12	-	1	-	LAMW052.	1 0,14

LAMW051.



LAMW052.



## SNAP-ON ADAPTER



For Type	Specification	Type	Pack pcs.	Weight kg/pc.
LAM	for snap-on mounting of accessories to 35mm DIN-rail acc. DIN EN 50022	LAMZTS35	10	0,0061

## DIN-RAIL TS15, 1000mm



For Type	Specification	Type	Pack pcs.	Weight kg/pc.
LAM	DIN-rail TS15 length 1000mm	LAMZTS15	1	0.02

<sup>1)</sup> Contacts suitable for electronic circuits, according to EN947-5-4 for rated voltage 24V DC (test ratings 17V DC, 5mA). Positively guided contacts.

### Schrack Adjustable Motor Protection Circuit Breakers



Rated current	Part No.
0.1 – 0.16 amp	BE 400301
0.16 – 0.25 amp	BE 400302
0.25 – 0.40 amp	BE 400303
0.40 – 0.63 amp	BE 400304
0.63 – 1.0 amp	BE 400305
1.0 – 1.6 amp	BE 400306
1.6–2.5 amp	BE 400307
2.5–4.0 amp	BE 400308
4.0–6.3 amp	BE 400309
6.3–10.0 amp	BE 400310
10.0–16.0 amp	BE 400311
16.0–25.0 amp	BE 400312
25.0–40.0 amp	BE 400313

### Schrack Monoblock LED



Part No.	Description
BZ501210	Monoblock Led red 24V
BZ501211	Monoblock Led yellow 24V
BZ501212	Monoblock Led blue 24V
BZ501213	Monoblock Led green 24V
BZ501214	Monoblock Led white 24V
bz501215	Monoblock Led red 230V
BZ501216	Monoblock Led yellow 230V
BZ501217	Monoblock Led blue 230V
BZ501218	Monoblock Led green 230V
BZ501219	Monoblock Led white 230V

### Schrack Modular Isolators & Contactors



#### Schrack Modular Isolator (Din Rail Mounting)

Part No.	Ampage	No. of poles
AZ200201	100Amp	1 pole
AZ200202	100Amp	2 pole
AZ200203	100Amp	3 pole
AZ200204	100Amp	4 pole
AZ200221	125Amp	1 pole
AZ200222	125Amp	2 pole
AZ200223	125Amp	3 pole
AZ200224	125Amp	4 pole
AZ200241	32 Amp	1 pole
AZ200242	32 Amp	2 pole
AZ200243	32 Amp	3 pole
AZ200244	32 Amp	4 pole
AZ200261	63Amp	1 pole
AZ200262	63 Amp	2 pole
AZ200263	63Amp	3 pole
AZ200264	63 Amp	4 pole

#### Schrack Modular Contactors

Modules	Contact	Part No.	Resistive Loads
		BZ326421	
		BZ326453	
1 mod	2n/o	BZ 326437	20A/4kW – 230V AC1
		BZ326438	
1 mod	2n/c	BZ 326439	20A/4kW – 230v AC1
		BZ326460	
2 mod	4n/o	BZ 326461	25A/16kW – 400v 3 AC1
		BZ326463	
2 mod	4n/c	BZ 326467	25A/16kW – 230/400v1
3 mod	4n/o	BZ 326442	40A/26kW – 400v 3 AC1
3 mod	2n/o	BZ 326466	40A/26kW
	2n/c		400v 3 AC1
3 mod	4n/o	BZ 326444	63A/40kW – 400v 3 AC1

### Shower Units and Priority Switch

#### Single Priority Shower Unit

**Description**  
When priority shower no 1 is in operation, the secondary shower no 2 is de-energised and will not operate until the priority shower is turned off. Complete with smoked door. (separate MCB & RCD)

**Part No.**  
Priority SHA

#### Dual Priority Shower Unit

**Description**  
When either shower no 1 or no 2 are in operation the second shower is de-energised and will not operate until the shower that is in use is turned off. Complete with smoked door. Din Rail Mounting Products

**Part No.**  
Non Priority SHC

#### Triple Priority Shower Unit

**Description**  
Whether shower no 1, 2 or 3 is in operation the others are de-energised and will not operate until the shower that is in use is turned off. Complete with smoked door.

**Part No.**  
Non Priority SHD

#### Quadruple Priority Shower Unit

**Description**  
Whether shower no 1, 2, 3 or 4 is in operation the others are de-energised and will not operate until the shower that is in use is turned off. Complete with smoked door. Priority units available for a maximum of seven showers.

**Part No.**  
Non Priority SHE



#### Priority Switch

**Current**  
6.7–39 amp current sensing

**Part No.**  
BZ601000

#### Lightning Transient Overvoltage Surge Protection

**Description**  
Single Phase Protector c/w telecomm. contact (Max. Current Limiting Discharge 40KA)

**Part No.**  
1352590000

Mains Power 3P + N Protector c/w telecomm. contact (Max. Current Limiting Discharge 40KA)

**Part No.**  
1352690000

Replacement surge insert (Max. Current Limiting Discharge 40KA)

**Part No.**  
8859750000

Miniature and General Purpose Plug-in Relays and Bases



Two Pole c/o – contact rating 8 amp – AC type

Coil Voltage	Part No.
24V AC	RT 424524
110V AC	RT 424615
240V AC	RT 424730

Two Pole c/o – contact rating 8 amp – DC type

Coil Voltage	Part No.
12V DC	RT 424012
24V DC	RT 424024
110V DC	RT 424110



Plug-in Bases to suit RT series relays

	Part No.
8 Pin to suit relay type RT	YRT 78626



Four Pole c/o – contact rating 6 amp – AC type – 14 pin

Coil Voltage	Part No.
24V AC	PT 570524
48V AC	PT 570548
110V AC	PT 570615
230V AC	PT 570730

Four Pole c/o – contact rating 6 amp – DC type – 14 pin

24V DC	PT 570024
48V DC	PT 570048
110V DC	PT 570110

Plug-in Bases to suit PT series relays

14 Pin to suit relay types PT	YPT 78704
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LED Modules

Description	Part No.
Green 6 – 24V AC/DC	YMLGA024
Red 6 – 24V AC/DC	YMLRA024
Green 110 – 230V AC	YMLGW230
Red 110 – 230V AC	YMLRW230



Two Pole c/o – contact rating 10 amp – AC type – 8 pin

Coil Voltage	Part No.
24V AC	MT 226024
48V AC	MT 226048
110V AC	MT 226115
230V AC	MT 226230



Three Pole c/o – contact rating 10 amp – AC type – 11 pin

Coil Voltage	Part No.
24V AC	MT 326024
48V AC	MT 326048
115V AC	MT 326115
230V AC	MT 326230



Two Pole c/o – contact rating 10 amp – DC type – 8 pin

Coil Voltage	Part No.
24V DC	MT 221024
48V DC	MT 221048
110V DC	MT 221110



Three Pole c/o – contact rating 10 amp – DC type – 11 pin

Coil Voltage	Part No.
24V DC	MT 321024
48V DC	MT 321048
110V DC	MT 321110



Plug-in Bases to suit MT series relays

	Part No.
8 Pin to suit relay types MT	YMR 78701
11 Pin to suit relay types MT	YMR 78700

Time Delay Relays



Description

Multi-function Relay 1 c/o Contact  
7 Functions, Timer range 50ms – 100hrs  
Supply voltage – 12/240V AC/DC

Part No.

ZR5MF011

Star – Delta Relay  
On delay, Timer range 500ms – 3mins  
Supply voltage – 12/240V AC/DC

Part No.

ZR5SD025

Three Phase – Voltage Monitoring Relay  
Adjustable drop out level  
voltage 160 – 240V

Part No.

UR5U3011

Liquid Level Monitoring Relay  
Supply voltage – 230V AC/DC  
Time delay – 5s fixed setting  
Pump up or Pump down function

Part No.

UR3L1011



Emergency Lighting Central Test Unit – Timer

Description

30 minute to 3 hour adjustable  
c/w test button facility  
1 x c/o contact  
Main and timed LED indication  
1 module – din rail mounting  
Supply voltage: 12V~.....240V~

Part No.

ZR5RT011

## Schrack – Contactors &amp; Overloads – according to IEC 947/EN 60947

**Mini-Contactors – 3 Pole + Auxiliary Contact**

Rating	Coil voltage	Part No.	Aux. contact
AC1 – 10A			
AC3 – 4KW	24V AC	LA300770	1 x N/O
AC1 – 10A			
AC3 – 4KW	230V AC	LA300773	1 x N/O

**Contactors – 3 Pole + Auxiliary Contacts**

Rating	Coil voltage	Part No.	Aux. contact
AC1 – 25A			
AC3 – 4KW (10A)	220–240VAC	LA301013	1 x N/O
AC1 – 25A			
AC3 – 5.5KW (14A)	220–240VAC	LA301413	1 x N/O
AC1 – 32A			
AC3 – 7.5KW (18A)	220–240VAC	LA301813	1 x N/O
AC1 – 32A			
AC3 – 11KW (22A)	220–240VAC	LA302213	1 x N/O
AC1 – 65A			
AC3 – 15KW (32A)	220–240VAC	LA303233	
AC1 – 80A			
AC3 – 18.5KW (40A)	220–240VAC	LA304033	
AC1 – 110A			
AC3 – 22KW (50A)	220–240VAC	LA305033	
AC1 – 120A			
AC3 – 30KW (62A)	220–240VAC	LA306233	
AC1 – 130A			
AC3 – 37KW (74A)	220–240VAC	LA307433	

**Thermal Overload Relays for Contactors****LA3050 – LA3074**

Setting Ranges	Part No.
20.00 – 28.00A	LA300019
28.00 – 42.00A	LA300020
40.00 – 52.00A	LA300021
52.00 – 65.00A	LA300022
60.00 – 74.00A	LA300027

**Earth Bar**

Description	Part No.
10 sq 1 metre length	IK020014
Din rail support for IK020014	IK018004
16 sq 1 metre length	IK020018
Support for neutral bar IK020018	IL900315
25 sq 1 metre length	IK020013

**Thermal Overload Relays for Contactors****LA3010 to LA3040****Setting Ranges**

Setting Ranges	Part No.
0.12 – 0.18A	LA300000
0.18 – 0.27A	LA300001
0.27 – 0.40A	LA300002
0.40 – 0.60A	LA300003
0.60 – 0.90A	LA300004
0.80 – 1.20A	LA300005
1.20 – 1.80A	LA300006
1.80 – 2.70A	LA300007
2.70 – 4.00A	LA300008
4.00 – 6.00A	LA300009
6.00 – 9.00A	LA300010
8.00 – 11.00A	LA300011
10.00 – 14.00A	LA300012
13.00 – 18.00A	LA300013
17.00 – 23.00A	LA300014
23.00 – 32.00A	LA300026
28.00 – 42.00A	LA300018

**Auxiliary Contacts**

Type	Rated Current	Part No.
1 x N/O	10 Amp	LA190100
1 x N/C	10 Amp	LA190101
1 x Early Make	10 Amp	LA190138
1 x Late Break	10 Amp	LA190139
1 x N/O	25 A	LA190137
1 x N/C	25 A	LA190135

**Mechanical interlocks**

For Contactor Type	Part No.
LA30007 to LA3040	LA190102
LA3050 to LA3074	LA190103

**Replacement Coils – A C Operated**

For Contactor Type	Voltage	Part No.
LA3007 to LA3022	24V AC	K3–6/4.24
LA3032 to LA3040	24V AC	K24/4.24
LA3050 to LA3074	24V AC	K45/4.24
LA3007 to LA3022	220–240V	K3–6/4.230
LA3032 to LA3040	220–240V	K24/4.230
LA3050 to LA3074	220–240V	K345/4.230
LA3007 to LA3022	380–415V	K3–6/4.400
LA3032 to LA3040	380–415V	K24/4.400
LA3050 to LA3074	380–415V	K45/4.400

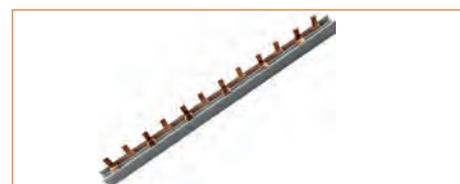
**Adaptor for mounting on 35MM Din Rail**

FM 4 (for 4 mm screw). 0687900000

**Neutral and Earth Blocks**

Description	Part No.
Neutral 7 x 10 sq	IK021036
Neutral 15 x 10 sq	IK021038
Earth 7 x 10 sq	IK021037
Earth 15 x 10 sq	IK021039

## Insulated Busbars



Part No.	Length (mm)
BS 900140	1 Phase 990 (55 x SP)
BS 900111	2 Phase 1 Mtr (28 x 2P)

**3 Phase**

Part No.	Length (mm)
2950	210 (4 x TP)
22951	1010 (20 x TP)
SD0.124	1.5 Module 1 meter
SB26216	2.5 Module 1 meter
SB36316	3.5 Module 1 meter

**4 Pole and Neutral Insulated Busbar**

Part No.	Length (mm)
SB46116	1 Mtr (14 x 4P)

**MCB Blanking Strip - 1 mtr long**

Part No.	Part No.
IL900251	

Other ratings and tripping sensitivities are available on request.

**Schrack – Technical Information:**

- Rated voltage/frequency: 230 V/400 V AC 50/60 Hz, 240 V/415 V AC
- 50/60 Hz ME version
- Rated breaking capacity: 6kA according to IEC/EN 60 898, 10 kA according to IEC/EN 60 947-2
- Rated breaking capacity DC: max 48 V one pole
- Tripping characteristics: B, C according to EN 60 898
- Back up fuse: 100 A gG max (>10 kA)
- Tripping temperature: -50C to +400C
- Operation temperature: -400C to +750C
- Ambient temperature: +500C for ME-type
- Selectivity class: 3
- Degree of protection: IP20
- Endurance: > 8000 Operating cycles
- Window with contact position indicator (Red/Green for each pole)
- Terminal capacity: 1mm<sup>2</sup> - 25mm<sup>2</sup>
- Additional connection capability for busbar block system
- DIN rail mounting (EN 50 022)
- Finger and hand touch safe according to BVG A3/OVE-EN 6

### Miniature Circuit Breaker (MCB) AMPARO 6kA



#### B – TYPE – 6KA Single Pole

Part No.	Amps
AM618102	New
AM618104	New
AM618106	6
AM618110	10
AM618113	New
AM618116	16
AM618120	20
AM618125	25
AM618132	32
AM618140	40
BM618150	50
BM618163	63



#### C – TYPE – 6KA Single Pole

Part No.	Amps
AM617102	New
AM617104	New
AM617106	6
AM617110	10
AM617113	New
AM617116	16
AM617120	20
AM617125	25
AM617132	32
AM617140	40
AM617150	50
AM617163	63



#### Double Pole

Part No.	Amps
AM618206	6
AM618210	10
AM618213	New
AM618216	16
AM618220	20
AM618225	25
AM618232	32
AM618240	40



#### Double Pole

Part No.	Amps
AM617206	6
AM617210	10
AM617213	New
AM617216	16
AM617220	20
AM617225	25
AM617232	32
AM617240	40
AM617250	50
AM617263	63



#### Triple Pole

Part No.	Amps
AM618306	6
AM618310	10
AM618313	New
AM618316	16
AM618320	20
AM618325	25
AM618332	32
AM618340	40



#### Triple Pole

Part No.	Amps
AM617306	6
AM617310	10
AM617313	New
AM617316	16
AM617320	20
AM617325	25
AM617332	32
AM617340	40
AM617350	50
AM617363	63

### MCB



#### D – TYPE – 10KA Single Pole

Part No.	Amps
BM 019106	6
BM 019110	10
BM 019116	16
BM 019120	20
BM 019125	25
BM 019132	32
BM 019140	40



#### Double Pole

Part No.	Amps
BM 019206	6
BM 019210	10
BM 019216	16
BM 019220	20
BM 019225	25
BM 019232	32
BM 019240	40



#### Triple Pole

Part No.	Amps
BM 019306	6
BM 019310	10
BM 019316	16
BM 019320	20
BM 019325	25
BM 019332	32
BM 019340	40

### Type A RCBO's Combined MCB/RCD (RCBO) 1+N



– Nominal Voltage: 240V AC.

– Number of Poles: 1 + N.

– Breaking Capacity: 6KA TO EN 60898.

#### C Characteristic

Part No.	Amps
AK667606	6
AK667610	10
AK667613	13
AK667616	16
AK667620	20
AK667625	25
BO 667632	32
BO 667640	40

#### B Characteristic

Part No.	Amps
AK668606	6
AK668610	10
AK668613	13
AK668616	16
AK668620	20
AK668625	25
BO 668532	32
BO 668540	40

### RCCB AMPARO 10kA



#### Part No.

AR002203--	4210
AR002230--	4210
AR004103--	4210
AR004130--	4210
AR004203--	4210
AR004230--	4210
AR006103--	4210
AR006130--	4210
AR006203--	4210
AR006230--	4210
AR024103--	4210
AR024203--	4210
AR052103--	4210
AR052203--	4210
AR054103--	4210
AR054130--	4210
AR054203--	4210
AR054230--	4210
AR056103--	4210
AR056203--	4210
AR064130--	4210
AR064230--	4210
AR066130--	4210

#### Description

RCCB AMPARO 10kA, 25A, 2-pole, 30mA
RCCB AMPARO 10kA, 25A, 2-pole, 300mA
RCCB AMPARO 10kA, 40A, 4-pole, 30mA
RCCB AMPARO 10kA, 40A, 4-pole, 300mA
RCCB AMPARO 10kA, 40A, 2-pole, 30mA
RCCB AMPARO 10kA, 40A, 2-pole, 300mA
RCCB AMPARO 10kA, 63A, 4-pole, 30mA
RCCB AMPARO 10kA, 63A, 4-pole, 300mA
RCCB AMPARO 10kA, 63A, 2-pole, 300mA
RCCB AMPARO 10kA, 40A, 4-pole, 30mA, G
RCCB AMPARO 10kA, 40A, 2-pole, 30mA, G
RCCB AMPARO 10kA, 25A, 4-pole, 30mA, type A
RCCB AMPARO 10kA, 25A, 2-pole, 30mA, type A
RCCB AMPARO 10kA, 40A, 4-pole, 30mA, type A
RCCB AMPARO 10kA, 40A, 4-pole, 300mA, type A
RCCB AMPARO 10kA, 40A, 2-pole, 30mA, type A
RCCB AMPARO 10kA, 40A, 2-pole, 300mA, type A
RCCB AMPARO 10kA, 63A, 4-pole, 30mA, type A
RCCB AMPARO 10kA, 63A, 2-pole, 30mA, type A
RCCB AMPARO 10kA, 40A, 4-pole, 300mA, S
RCCB AMPARO 10kA, 40A, 2-pole, 300mA, S
RCCB AMPARO 10kA, 63A, 4-pole, 300mA, S

RCBO Busbar and RCD's

3 Phase and Neutral Busbar for RCBO

Part No.	Description
2915.161	to suit max 27 RCBO's per length



RCCB's 6KA/10KA AC Type

Part No.	Description
BC 602203 – P	25A 2 Pole 30 MA 2 Mod
BC 604203 – P	40A 2 Pole 30 MA 2 Mod
BC 606203 – P	63A 2 Pole 30 MA 2 Mod
BC 604103 – P	40A 4 Pole 30 MA 4 Mod
BC 606103 – P	63A 4 Pole 30 MA 4 Mod
BC 604230	40A 2 Pole 300 MA 2 Mod
BC 606230	63A 2 Pole 300 MA 2 Mod
BC 604130	40A 4 Pole 300 MA 4 Mod
BC 606130	63A 4 Pole 300 MA 4 Mod
BC 006210	63A 2 Pole 100 MA 2 Mod
BC 000103	100A 4 Pole 30 MA 4 Mod
BC 000110	100A 4 Pole 100 MA 4 Mod
BC 000130	100A 4 Pole 300 MA 4 Mod
BC 000150	100 A 4 Pole 500 MA 4 Mod
BD037103 – A	125A 4 Pole 30MA 4 Mod
BD037110 – A	125A 4 Pole 100 MA 4 Mod
BD037130 – A	125A 4 Pole 300 MA 4 Mod

MCB & RCCB Auxiliary Contacts and Accessories



Auxiliary Contacts (Screw-on)

Part No.	Description
BC 900002	1 x N/O + 1 N/C for BD (RCCB's) up to 63A 1 x N/O + 1 N/C for BD (RCCB's)

BC 900004	80 up to 100A 1 x N/O + 1 N/C for BS (MCB's) + BU
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BD 900006	(RCBO's) Also available Shunt Trips and Under Voltage Releases.
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Trip Alarm and c/o Auxiliary Contact – with Visual Trip Indication

Part No.
BC 900022

Moulded Case Circuit Breakers (MCCB)



3–Pole, Thermo–Magnetic Release Size 1

Part No.	Type
MC120131	20 A/25 kA
MC132131	32 A/25 kA
MC140131	40 A/25 kA
MC150131	50 A/25 kA
MC163131	63 A/25 kA
MC180131	80 A/25 kA
MC110131	100 A/25 kA
MC112131	125 A/25 kA
MC116131	160 A/25 kA

MC120231	20 A/50 kA
MC132231	32 A/50 kA
MC140231	40 A/50 kA
MC150231	50 A/50 kA
MC163231	63 A/50 kA
MC180231	80 A/50 kA
MC110231	100 A/50 kA
MC112231	125 A/50 kA
MC116231	160 A/50 kA

3–Pole, Thermo–Magnetic Release Size 2

Part No.	Type
MC212131	125 A/25 kA
MC216131	160 A/25 kA
MC220131	200 A/25 kA
MC225131	250 A/25 kA

MC212231	125 A/50 kA
MC216231	160 A/50 kA
MC220231	200 A/50 kA
MC225231	250 A/50 kA

MC280331	80 A/100 kA
MC210331	100 A/100 kA
MC212331	100 A/100 kA
MC216331	160 A/100 kA



3–Pole, Electronic Releases Size 3

Part No.	Type
MC325232	250 A/50 kA
MC340232	400 A/50 kA
MC363232	630 A/50 kA

MC325332	250 A/100 kA
MC340332	400 A/100 kA
MC363332	630 A/100 kA

3–Pole, Electronic Releases Size 4

Part No.	Type
MC463232	630 A/50 kA
MC480232	800 A/50 kA
MC410232	1000 A/50 kA
MC412232	1250 A/50 kA
MC416232	1600 A/50 kA
MC463332	630 A/100 kA
MC480332	800 A/100 kA
MC410332	1000 A/100 kA
MC412332	1250 A/100 kA
MC416332	1600 A/100 kA



3–Pole, Electronic Release Delayed Size 2

Part No.	Type
MC210233	100 A/50 kA
MC216233	160 A/50 kA
MC225233	250 A/50 kA
MC210333	100 A/100 kA
MC216333	160 A/100 kA
MC225333	250 A/100 kA

Size 3

Part No.	Type
MC325233	250 A/50 kA
MC340233	400 A/50 kA
MC363233	630 A/50 kA
MC325333	250 A/100 kA
MC340333	400 A/100 kA
MC363333	630 A/100 kA

3–Pole, Electronic Release Delayed Size 4

Part No.	Type
MC463233	630 A/50 kA
MC480233	800 A/50 kA
MC410233	1000 A/50 kA
MC412233	1250 A/50 kA
MC416233	1600 A/50 kA
MC463333	630 A/100 kA
MC480333	800 A/100 kA
MC410333	1000 A/100 kA
MC412333	1250 A/100 kA
MC416333	1600 A/100 kA

Four pole types available on request

3 – Pole Switch Disconnectors

Part No.	Type
MC163034	63 A/125 A
MC110034	100 A/125 A
MC112034	125 A/125 A
MC216034	160 A/250 A
MC220034	200 A/250 A
MC225034	250 A/250 A
MC340034	400 A/630 A
MC363034	630 A/630 A

## Moulded Case Circuit Breakers (MCCB)

*3 – Pole Switch Disconnectors with remote trip*

Part No.	Type
MC163035	63 A/125 A
MC110035	100 A/125 A
MC112035	125 A/125 A
MC216035	160 A/250 A
MC220035	200 A/250 A
MC225035	250 A/250 A
MC340035	400 A/630 A
MC363035	630 A/630 A
MC480035	800 A/1600 A
MC410035	1000 A/1600 A
MC412035	1250A/1600 A
MC416035	1600 A/1600 A

*Auxiliary Contacts Trip Indicating Auxiliary Contact*

Part No.	Type
MM216376	N/O contact front
MM216378	N/C contact front

*Early Make Auxiliary Contacts*

Part No.	Type
MC199432	2 NO MC1
MC299430	2 NO MC2/MC3
MC496172	2 NO MC4

*Under Voltage Release*

Part No.	Type
MC199462	MC1 incl. 3m cable
MC299491	MC2 / MC3
MC496189	MC4
MC199481	MC1 incl. 3m cable
MC299509	MC2 / MC3
MC199471	MC1 incl. 3m cable
MC299499	MC2 / MC3
MC496193	MC4
MC199473	MC1 incl. 3m cable
MC299501	MC2 / MC3
MC496194	MC4

*Under Voltage Release with two early make auxiliary contacts*

Part No.	Type
MC199565	MC1 incl. 3m cable
MC199567	MC1 incl. 3m cable
MC299591	MC2 / MC3
MC299594	MC2 / MC3
MC496221	MC4
MC496222	MC4

*Shunt trips*

Part No.	Type
MC199736	MC1 incl. 3m cable
MC199744	MC1 incl. 3m cable
MC299754	MC2 / MC3
MC299763	MC2 / MC3
MC496447	MC4
MC496451	MC4

*Door Interlocking Rotary Handle black/grey complete with padlock facility*

Part No.	Type
MC190166	MC1
MC290168	MC2
MC390170	MC3
MC496614	MC4

*Extension shaft for rotary handle*

Part No.	Type
MC191232	MC1/MC2 max. 400mm
MC391234	MC3/MC4 max. 400mm
MC190191	MC1/MC2 max. 400mm
MC390193	MC3/MC4 max. 400mm

*Mechanical Locking Device*

Part No.	Type
MC191581	Mechanical locking device
MC291582	Mechanical locking device
MC391583	Mechanical locking device
MC491584	Mechanical locking device
MC191585	Bowden Cable
MC191586	Bowden Cable
MC191587	Bowden Cable

*Remote Operators*

Part No.	Type
MC299832	MC2 – 208 to 240V AC
MC399850	MC3 – 208 to 240V AC
MC496685	MC4 – 208 to 240V AC

*Terminal Cover*

Part No.	Type
MC190021	Terminal cover size MC1
MC290038	Terminal cover size MC2
MC390045	Terminal cover size MC3
MC496846	Terminal cover size MC4

*Residual Current Releases, 4–pole*

Part No.	Type
MC296719	F1 personal protection 30 mA
MC296720	F1 0, 1–3 A

*Air Circuit Breakers MO Series, up to 6300A  
Size 1 with rear horizontal connection – 3 pole*

Part No.	Type
MO108232	800A 50kA
MO110232	1000A 50kA
MO112232	1250A 50kA
MO116232	1600A 50kA
MO108332	800A 65kA
MO110332	1000A 65kA
MO112332	1250A 65kA
MO116332	1600A 65kA

*Size 2 with rear horizontal connection – 3 pole*

Part No.	Type
MO220232	2000A 55kA
MO225232	2500A 55kA
MO232232	3200A 55kA
MO208332	800A 80kA
MO210332	1000A 80kA
MO212332	1250A 80kA
MO216332	1600A 80kA
MO220332	2000A 80kA
MO225332	2500A 80kA
MO232332	3200A 80kA

*Auxilliary Built In*

Part No.	Type
MO890150	Overcurrent relays, LI ETU15
MO890250	Overcurrent relays, LSI ETU25
MO890274	Overcurrent relays, LSNIIG ETU27
MO890450	Overcurrent relays universal, ETU45
MO890760	Overcurrent relays digital, ETU76
MO894000	Motor 208 – 240V AC, incl. closing coil
MO890G00	Voltage release 230V AC
MO890F00	Voltage release 110V AC
MO890B00	Voltage release 24V AC
MO8900N0	Undervoltage release 230V AC
MO8900M0	Undervoltage release 110V AC
MO8900J0	Undervoltage release 24V AC
MO800K07	Trip signalling switch
MO805550	Mechanical latching fixed version
MO80R550	Mechanical latching withdrawable version

*Accessories*

Part No.	Type
MO90AF04	Motor 208 – 240V AC, excluding coil (use voltage release)
MO90AD06	Voltage release 230V AC
MO90AD05	Voltage release 110V AC
MO90AD01	Voltage release 24V AC
MO90AE06	Undervoltage release 230V AC
MO90AE05	Undervoltage release 110V AC
MO90AE01	Undervoltage release 24V AC
MO90AH04	Trip signalling switch
MO90S550	Mechanical latching fixed version
MO90R550	Mechanical latching withdrawable version
MO90AP01	Door sealing frame IP40
MO90AB01	Receptacle
MO90AB03	Auxilliary connector

## Standard Assemblies 22.5mm

*Pushbutton Spring Return–Non Illuminated c/w Contact*

Description	Part No.
1 n/c Red	L21AA01B
1 n/o Green	L21AA02A
1 n/o Black	L21AA03A
1 n/o Yellow	L21AA04C
1 n/o Blue	L21AA06A

*Pushbutton Spring Return–Illuminated c/w Contacts*

Description	Part No.
1 n/o + n/c Red 24V	L21AH10L
1 n/o + n/c Green 24V	L21AH20L
1 n/o + n/c Yellow 24V	L21AH40L
1 n/o + n/c White 24V	L21AH50L
1 n/o + n/c Blue 24V	L21AH60L
1 n/o + n/c Red 130V	L21AH10M
1 n/o + n/c Green 130V	L21AH20M
1 n/o + n/c Red 230V	L21AH10H
1 n/o + n/c Green 230V	L21AH20H

*Emergency Stop Pushbutton c/w Contact*

Description	Part No.
Red with black bezel, 1 n/c	L22ED01D

*Selector Switches c/w Contacts*

Description	Part No.
Black n/o 2 positions – 900 Stay–put	L21KE03B
Black 2 x n/o 3 positions – 450 Stay–put	L21MA03A

*Key Switches (key removable in 0 position) c/w Contacts*

Description	Part No.
1 x n/o 2 positions – 450 Stay–put	L21LA00G

*Pilot Lights 22.5mm*

Description	Part No.
LED Block – Red 24V	L20SE10L
LED Block – Green 24V	L20SE20L
LED Block – Yellow 24V	L20SE40L
LED Block – White 24V	L20SE50L
LED Block – Blue 24V	L20SE60L
LED Block – Red 130V	L20SE10M
LED Block – Green 130V	L20SE20M
LED Block – Yellow 130V	L20SE40M
LED Block – White 130V	L20SE50M
LED Block – Blue 130V	L20SE60M
LED Block – Red 230V	L20SE10H
LED Block – Green 230V	L20SE20H
LED Block – Yellow 230V	L20SE40H
LED Block – White 230V	L20SE50H
LED Block – Blue 230V	L20SE60H

## IP 66 Pushbuttons 22.5mm

*Flush – Spring return*

Description	Part No.
Red	L21AA01
Green	L21AA02
Black	L21AA03
Yellow	L21AA04
White	L21AA05
Blue	L21AA06

*Flush – Latching*

Description	Part No.
Red	L21CA01
Green	L21CA02
Black	L21CA03
Yellow	L21CA04
White	L21CA05
Blue	L21CA06

*Projecting – Spring return – Non Illuminated*

Description	Part No.
Red	L21AB01
Green	L21AB02
Black	L21AB03
Yellow	L21AB04
White	L21AB05
Blue	L21AB06

## Illuminated Pushbuttons

*Flush – Spring return*

Description	Part No.
Red	L21AH10
Green	L21AH20
Yellow	L21AH40
White	L21AH50
Blue	L21AH60

*Flush – Latching*

Description	Part No.
Red	L21CH10
Green	L21CH20
Yellow	L21CH40
White	L21CH50
Blue	L21CH60

*Projecting – Spring return*

Description	Part No.
Red	L21AK10
Green	L21AK20
Yellow	L21AK40
White	L21AK50
Blue	L21AK60

*Projecting – Latching*

Description	Part No.
Red	L21CK10
Green	L21CK20
Yellow	L21CK40
White	L21CK50
Blue	L21CK60

*Adjustable Push/Reset button*

Description	Part No.
Blue	L21HA06

Adjustable: 26mm min to 46mm max / front side of panel

## IP66 – Indicator Lights 22.5mm

*Pilot Lights – Separate Units*

Description	Part No.
Red	L20SE10
Green	L20SE20
Yellow	L20SE40
White	L20SE50
Blue	L20SE60

## IP66 – Mushroom Heads 22.5mm



*Non illuminated – ø 32mm, Turn to reset*

**Description** **Part No.**  
Red L22EC01

*Non illuminated – ø 40mm, Turn to reset*

**Description** **Part No.**  
Red L22ED01

*Non illuminated – ø 40mm, Key to reset*

**Description** **Part No.**  
Red L22GM01

*Non illuminated – ø 40mm, Turn to reset.*

*Fulfills ISO 13850*  
**Description** **Part No.**  
Red L22ER01

*Non illuminated – ø 40mm, Key to reset.*

*Fulfills ISO 13850*  
**Description** **Part No.**  
Red L22GR01

*Snap-action stopbutton with flag indicator. Pull to reset*  
*Fulfills ISO 13850*

**Description** **Part No.**  
Red – engraving STOP – I L22DU01

## New One Piece Pilot Lights – 24V, 130V and 230V



*Pl.16005GB – Ø22mm One Piece Pilot Lights with integrated led 24V, 130V and 230V*

Description	Part No.
24V AC/DC Red One piece Pilot Light	L20SC10L
24V AC/DC Green One piece Pilot Light	L20SC20L
24V AC/DC Yellow One piece Pilot Light	L20SC40L
24V AC/DC White One piece Pilot Light	L20SC50L
24V AC/DC Blue One piece Pilot Light	L20SC60L
130V AC/DC Red One piece Pilot Light	L20SC10M
130V AC/DC Green One piece Pilot Light	L20SC20M
130V AC/DC Yellow One piece Pilot Light	L20SC40M
130V AC/DC White One piece Pilot Light	L20SC50M
130V AC/DC Blue One piece Pilot Light	L20SC60M
230V AC/DC Red One piece Pilot Light	L20SC10H
230V AC/DC Green One piece Pilot Light	L20SC20H
230V AC/DC Yellow One piece Pilot Light	L20SC40H
230V AC/DC White One piece Pilot Light	L20SC50H
230V AC/DC Blue One piece Pilot Light	L20SC60H

## IP66 – Selector Switches ø 22.5mm



Description	Part No.
2 Positions – Stay Put 450	L21KA03
2 Positions – Spring Return 450	L21KB03
3 Positions – Stay Put 450	L21MA03
3 Positions – Spring Return from left to 0 – 450	L21MB03
3 Positions – Spring Return from right to 0 – 450	L21MC03
3 Positions – Spring Return to 0 – 450	L21MD03

*2 positions – Keylock – Key free in Position 0*

Description	Part No.
Black Stay Put – 450	L21LC00
Black Spring Return – 450	L21LD00

*2 positions – Keylock – Key free in Position 0 – 1*

Description	Part No.
Black Stay Put – 900	L21LG00

*3 positions – Keylock – Key free in Position 0*

Description	Part No.
Black Stay Put – 450	L21NA00
Black Spring Return from left 0 – 450	L21NB00
Black Spring Return to 0 – 450	L21ND00

*3 positions – Keylock – Key free in Position 1 – 0 – 2*

Description	Part No.
Black Stay Put – 900	L21NK00

## IP 66 Pushbuttons 22.5mm



*Double Touch – Spring Return, Flush – Projecting*

Description	Part No.
Green, white “I” red white “O”	L61QB21

*Double Touch – Spring Return, Flush – Flush*

Description	Part No.
Green, white “I” red white “O”	L61QA21

*Triple Touch – Spring Return, Flush – Projecting – Flush*

Description	Part No.
Green arrows, red STOP	L61BA22

*Button for potentiometer*

Description	Part No.
Potentiometer length 46 to 51mm	L21RP03

*Selector Switches – with knob*

Description	Part No.
Black Stay Put – 450	L21TA03
Black Spring Return – 450	L21TB03

## LED Blocks (with screw terminals)



*LED Blocks 24V*

Description	Part No.
White	33EAWL
Red	33EARL
Green	33EAGL
Blue	33EABL
Yellow	33EAYL

*LED Blocks 48V*

Description	Part No.
White	33EAWL4
Red	33EARL4
Green	33EAGL4
Blue	33EABL4
Yellow	33EAYL4

*LED Blocks 130V*

Description	Part No.
White	33EAWM
Red	33EARM
Green	33EAGM
Blue	33EABM
Yellow	33EAYM

*LED Blocks 230V*

Description	Part No.
White	33EAWH
Red	33EARH
Green	33EAGH
Blue	33EABH
Yellow	33EAYH

## Contact Blocks and Clips ø 22.5mm



*Contact Blocks*

Description	Part No.
1 NO – contact Screw terminals	33E10
1 NC – contact Screw terminals	33E01
1 NO and 1 NC – contact Screw terminals	33E11



*Clips ø 22.5mm*

Single module clip	331E
3 module clip	333E
5 module clip (only for ø 22 heads)	335E

**Legend Plates**



*Emergency Stop Plates*  
 Round yellow aluminium plate 60mm with text  
 "Emergency – Stop"  
**Part No.** LWE16300

Round yellow aluminium plate 80mm with text  
 "Emergency – Stop"  
**Part No.** LWE00300



*Frames for Legend Plates*  
 Frames for Legend Plates  
**Part No.** LWP3

*IA Without text*  
 Aluminium  
**Part No.** LIA9

*LIA9 With text*

Close	LIA9-314
Down	LIA9-336
Fast	LIA9-310
Forward	LIA9-305
Forw. – Off – Rev.	LIA9-392
Hand – Auto	LIA9-383
Hand – Off – Auto	LIA9-291
Inch	LIA9-329
Jog	LIA9-328
Left	LIA9-311
Local – Off – Remote	LIA9-393
Lower	LIA9-308
Off	LIA9-304
Off – On	LIA9-382
On	LIA9-303
Open	LIA9-313
Power – On	LIA9-330
Raise	LIA9-307
Reverse	LIA9-306
Right	LIA9-312
Run	LIA9-327
Reset	LIA9-315
Slow	LIA9-309
Start	LIA9-301
Stop	LIA9-302
Stop – Start	LIA9-381
Trip	LIA9-1313
Up	LIA9-335

**Accessories**



**Description**  
 Anti-rotation ring for Selector Switches  
 Bulb extractor  
 Blanking plug for ø 22.5mm hole  
**Part No.** LWA0237  
 LWA0201  
 LWA0229



Silicone shroud for double and triple push buttons L61 above  
**Part No.** LWA0223  
 Padlockable Guard: Standard (height: 36mm)  
 Padlockable Guard: High (height: 40mm)  
 Guard  
 Padlockable cap for Pushbuttons  
 Fixing tool for mounting of pushbuttons  
**Part No.** LWA0239  
 LWA0240  
 LWA0225  
 LWA0226  
 LWA0234

*Silicone shroud (gives IP67 on flush pushbutton)*



**Description**  
 Transparent  
 Red Opaque  
 Green Opaque  
 Black Opaque  
**Part No.** LWA0228  
 LWA0203  
 LWA0204  
 LWA0205

**IP Rated Stainless Steel Push-button Enclosure with Guard to prevent accidental operation**



**Part No.** SSPE



**IP65 – LED Indicator Lights 22.5mm**

*One piece LED light*

Description	Part No.
Red, 24V AC/DC	BZ 501210ME
Yellow, 24V AC/DC	BZ 501211ME
Blue, 24V AC/DC	BZ 501212ME
Green, 24V AC/DC	BZ 501213ME
White, 24V AC/DC	BZ 501514ME
Red, 220V AC *	BZ 501215ME
Yellow, 220V AC *	BZ 501216ME
Blue, 220V AC *	BZ 501217ME
Green, 220V AC *	BZ 501218ME
White, 220V AC *	BZ 501219ME



*Contact Modules (max 3/button)*

Type	Part No.
N/C	33S01
N/O	33S10



*LED Block – Base mounted 24V*

Description	Part No.
White	33SAWL
Red	33SARL
Green	33SAGL
Blue	33SABL
Yellow	33SAYL

*LED Block – Base mounted 130V*

Description	Part No.
White	33SAWM
Red	33SARM
Green	33SAGM
Blue	33SABM
Yellow	33SAYM

*LED Block – Base mounted 230V*

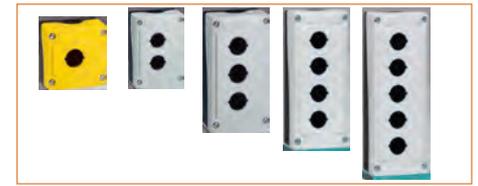
Description	Part No.
White	33SAWH
Red	33SARH
Green	33SAGH
Blue	33SABH
Yellow	33SAYH

Control Stations

Complete standard boxes IP66

	Type	Function	Colour	Symbol	Connection	Part No.
	Flush pushbutton, spring return 1 NO–contact	Start	Green		13  14	LBX10110
	Flush pushbutton, spring return 1 NC–contact	Stop	Red		11  12	LBX10610
	Two–position knob Stable positions 1 NO–contact	On–Off	Black		13  14	LBX12510
	Two–position keylock Stable pos. Key out in both positions 1 NO–contact	On–Off	Black		13  14	LBX12610
	Mushroom head ø 40mm Turn to reset	Stop	Yellow lid Red Button	Emergency Stop	21  22	LBX10510
	Mushroom Head ø 40mm to EN418. Turn to reset	Stop	Yellow lid Red Button	Emergency Stop	21  22	LBX17301
	2 spring return flush pushbuttons 1 NC and 1 NO–contact	Start	Green		13  14	LBX20120
		Stop	Red		21  22	
	3 spring return flush pushbuttons 1 NO–, 1 NC–, 1 NO–contact	Up	Green		13  14	LBX30430
		Stop	Red		21  22	
		Down	Green		13  14	
	Snap–action stop button with flag indicator ø 54mm Pull to reset. 1 NC–contact. Flag indicator: Red = activated Green = not activated Fulfils ISO 13850 and IEC60947–5–5	Emergency Stop	Yellow lid Red button	Stop – 	21  22	LBX14201

Control Stations Series LBX



Empty Enclosures

Description		Part No.
Grey Cover	1 Way	LBX0100
Yellow cover	1 Way	LBX0100J
Grey cover	2 Way	LBX0200
Grey cover	3 Way	LBX0300
Grey cover	4 Way	LBX0400
Grey cover	5 Way	LBX0500

Technical Characteristics

Maximum Thermal Current: 16A (IEC 947 – 5) – Conventional Thermal Current: 10A

Electrical ratings:		230	400	440	500	690
AC	Rated operating voltage (50 – 60Hz)	AC21				
	Rated operating current (IEC 947 – 3)	14	12	11	10	8
	Rated operating current (IEC 947 – 5 – 1)	6.4	5	3.5	2.5	1
DC	Rated operating voltage	24	48	60	110	220
	Rated op.current (IEC 947 – 5 – 1)	1.5	1	0.7	0.3	0.2
Electrical Operating temperatures	1 million cycles Without bulb Pilot light ill. pushbutton	-30 - +60C -30 - +40C -30 - +40C				

3 knockouts for Pg 13.5 (1 up, 1 down and 1 to the right)

## Busbar Supports



### Insulated Busbar Supports & Accessory

Height (mm)	Insert	Part No.
20	M4	SK-201704
25	M6	SK-252206
30	M6	SK-303006
30	M8	SK-303008
35	M6	SK-353206
35	M8	SK-353508
35	M10	SK-353510
40	M8	SK-404008
40	M10	SK-404010
45	M8	SK-454608
45	M10	SK-454610
50	M6	SK-503606
50	M8	SK-503608
50	M10	SK-503610
60	M8	SK-604008
60	M10	SK-604010
75	M10	SK-754610
75	M12	SK-754612



### Neutral and Earth Busbars

Description	Type	Pack	Part No.
15 x 2mm	NSCH	1 mtr	0280200000
Copper Busbar			
12 x 2mm	ESCH	1 mtr	0280300000
Zinc plated Steel			
Brass B/B (10 x 3mm)	SSCH	1 mtr	0259800000
Copper B/B (10 x 3mm)	SSCH	1 mtr	0348900000
Copper B/B (15 x 6mm)	SSCH	1 mtr	0357400000
Cable Clamp	DS	100	0280100000
M5 x 8 Screw	BS	100	0296700000



Support	SH1	20	0299860000
4mm2 Clamp	ZB4	50	0316500000
16mm2 Clamp	ZB16	50	0316600000
35mm2 Clamp	ZB35	20	0266500000
6mm2 Earth Clamp	ZBE6	50	0459500000

## Earth bars and Disconnectors c/w 10mm Stainless Steel bolt sets



### Earth Bars

Description	Copper Size	Part No.
6 way	250 x 40 x 5mm	E-Bar6W405
8 way	350 x 40 x 5mm	E-Bar8W405
10 way	400 x 40 x 5mm	E-Bar10W405
12 way	500 x 40 x 5mm	E-Bar12W405

Description	Copper Size	Part No.
6 way	250 x 50 x 6mm	E-Bar6W506
8 way	350 x 50 x 6mm	E-Bar8W506
10 way	400 x 50 x 6mm	E-Bar10W506
12 way	500 x 50 x 6mm	E-Bar12W506

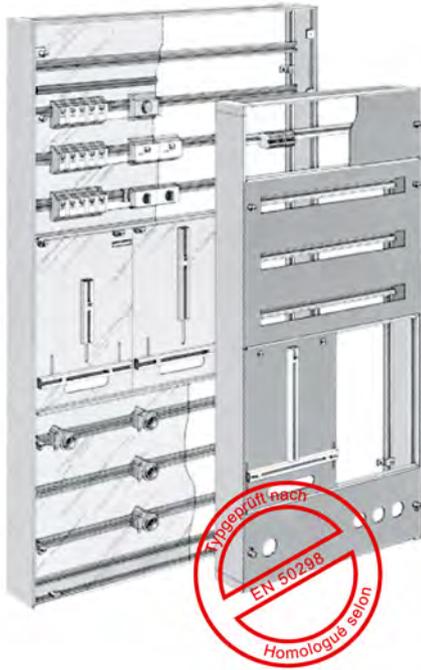


### Earth Bars c/w Single Disconnecting Link

Description	Copper Size	Part No.
6 way	450 x 40 x 5mm	E-Bar6W4051TestLK
8 way	550 x 40 x 5mm	E-Bar8W4051TestLK
10 way	600 x 40 x 5mm	E-Bar10W4051TestLK
12 way	700 x 40 x 5mm	E-Bar12W4051TestLK

Description	Copper Size	Part No.
6 way	450 x 50 x 6mm	E-Bar6W5061TestLK
8 way	550 x 50 x 6mm	E-Bar8W5061TestLK
10 way	600 x 50 x 6mm	E-Bar10W5061TestLK
12 way	700 x 50 x 6mm	E-Bar12W5061TestLK

other sizes and types available on request



**Aluminium profiles, mounting rails and standard parts**

The range includes everything you need for professional control panel equipment, as well as for circuit diagram pockets in plastic or aluminium, NH fuse holders and cable and tubular retaining rails.

Contact our sales office on 01 453 2522 for more information.

**Aluminium Support Rails and Accessories**



*Rail*

Part No.	Length
N2 – 2 Mtr	2mt
N3 – 2 Mtr	2mt



*Angle Brackets and Slide Nuts*

Part No.	Length
N50.25mm	25mm
N50.40mm	40mm
N50.80mm	80mm
N50.120mm	120mm



*Slide Nut*

Part No.	Size
N12.4 – M4	M4
N12.5 – M5	M5
N12.6 – M6	M6
N13.8 – M8	M8



*Screw*

Part No.	Size
N51 – M6 x 12mm	



*Retro Fit Nut*

Part No.	Size
N12.4K	M4
N12.5K	M5
N12.6K	M6



*Earth Plate/Pillar Support*

Part No.	Size
N35 – M25	M25



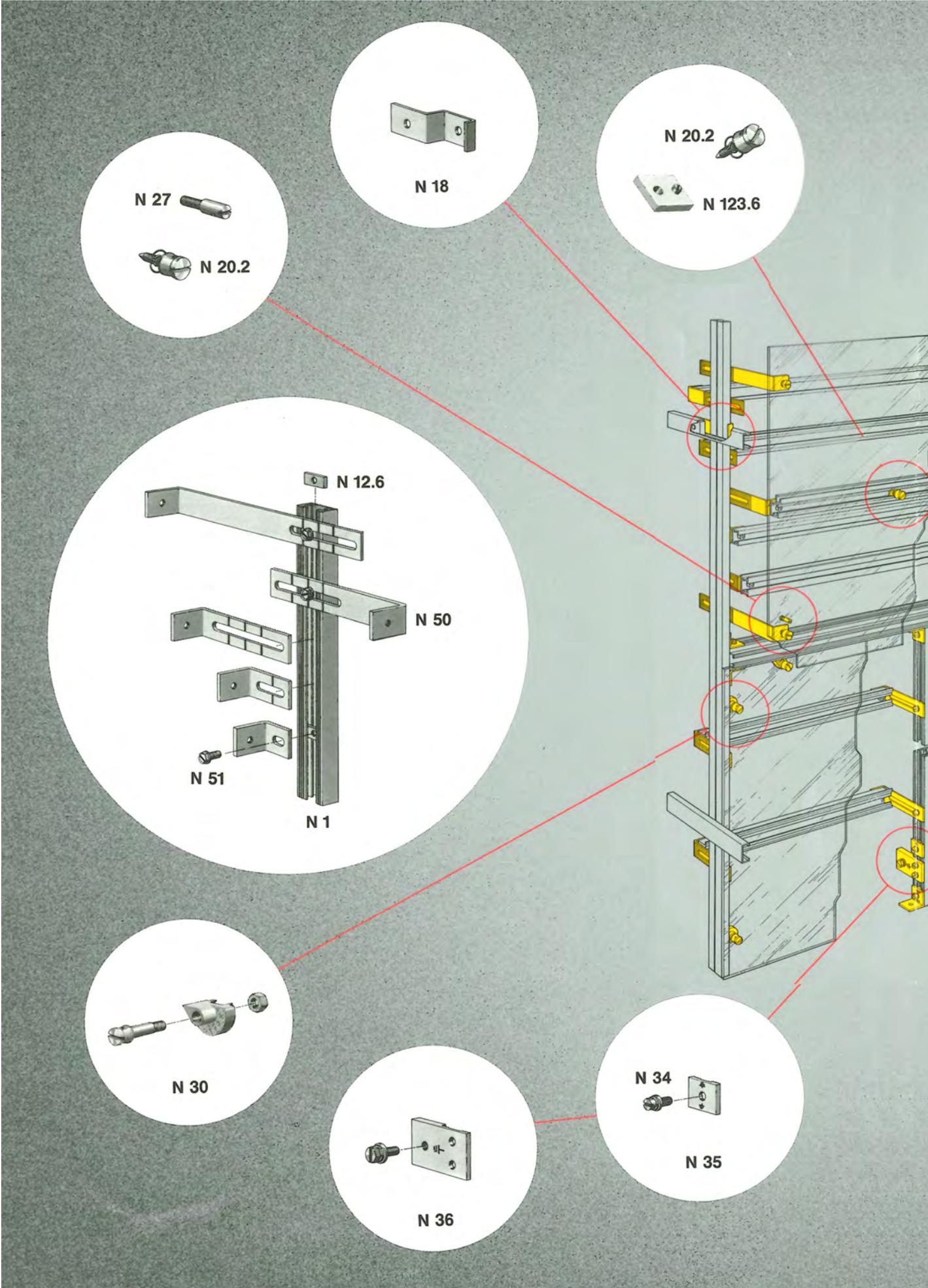
*Hex Pillars*

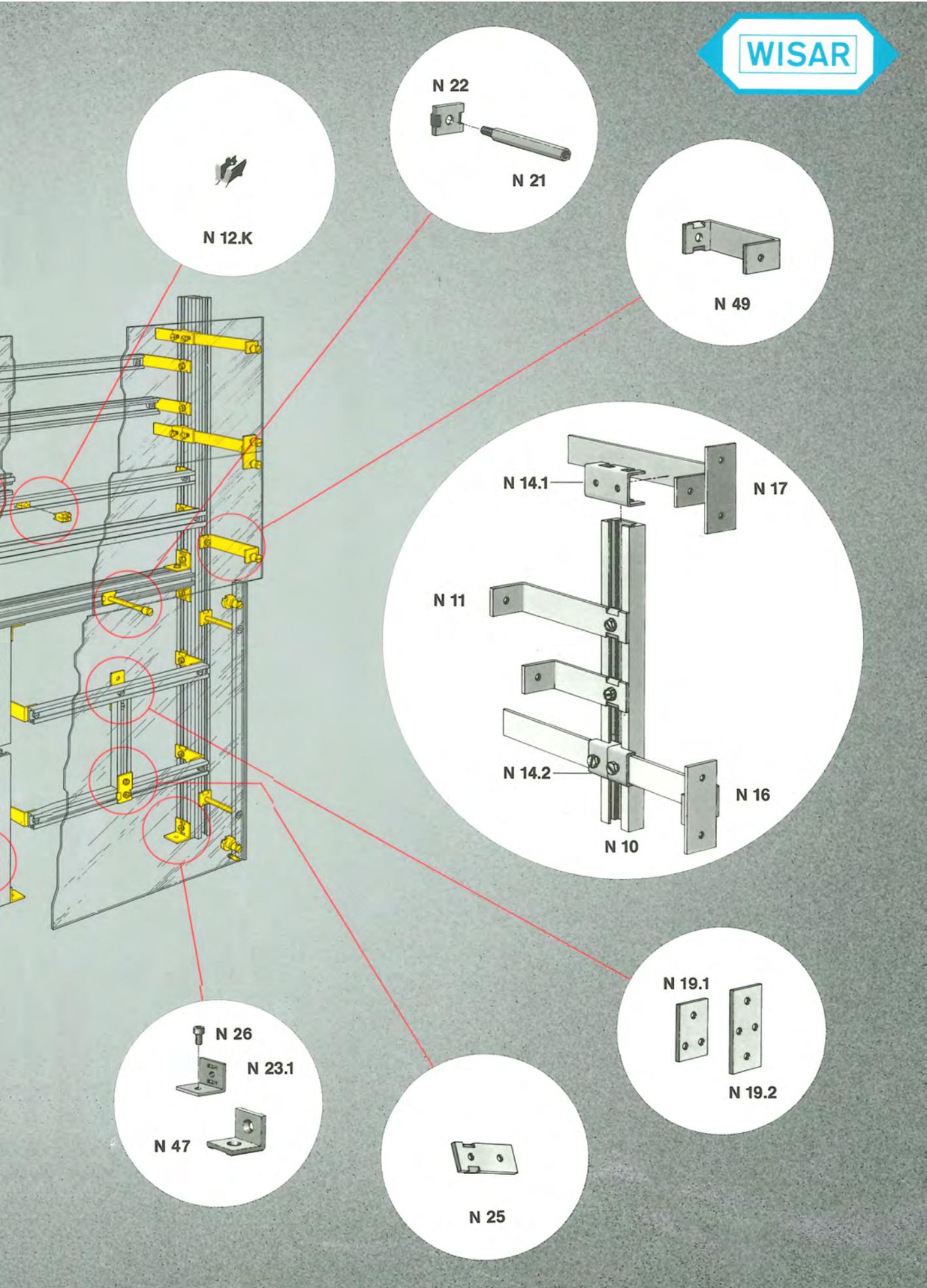
Part No.	Length
N21.15	M6 x 15mm
N21.20	M6 x 20mm
N21.25	M6 x 25mm
N21.45	M6 x 45mm
N21.55	M6 x 55mm
N21.60	M6 x 60mm
N21.65	M6 x 65mm
N21.80	M6 x 80mm



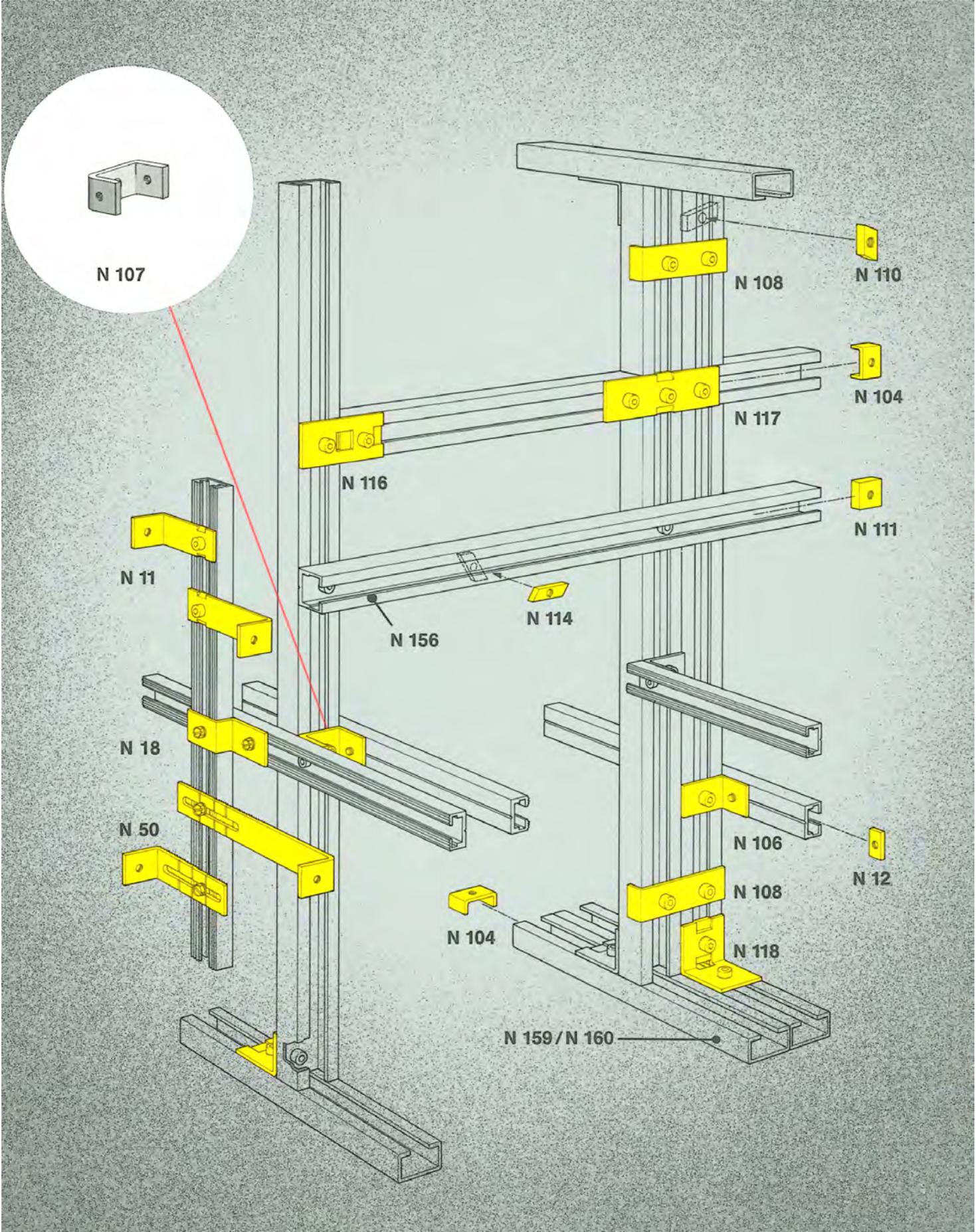
*Captive Sealing Screw*

Part No.	Size
N20.2	M6
N27	M4

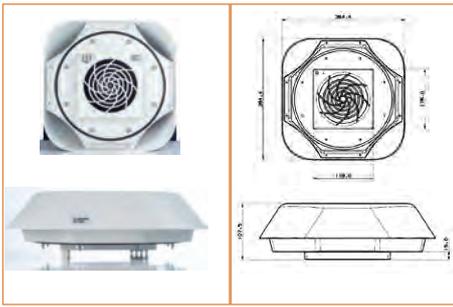




Wisar Aluminium Support Rails and Accessories



Ventilation



Roof Fans

Models	PFF5500	PFF6000
Air Flow rate	560 m <sup>3</sup> /h	970 m <sup>3</sup> /h
Power Consumption	58/75 W	85/90 W
Current Consumption	0.26/0.34 A	0.38/0.44 A
Noise Level	62 (64) dB(A)	72 (73) dB(A)
Weight	3.16 kg	3.74 kg
Power Supply V/Hz	230V 50-60Hz	
Dimensions	364x364x107 mm	
Overcurrent Protection	Thermal	
Electrical Connection	4-pole terminal 2.5mm <sup>2</sup>	
Operating Temperature	-10/70 °C	
Protection Degree	IP44	
Flow Direction	inside/out	
Bearing	Ball	
Service Life	50 Hour	
Plastic Material	UL94 V0 ABS Flame Retardant	
Gasket	Polyurethane sealing	
Mounting	8 pcs m4 screws	
Conformity	CE	



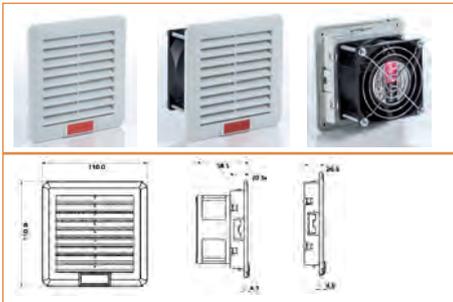
Filter Fans 100m<sup>3</sup>/h

Models	PFI 1500	PTF 1500
Dimensions mm	160x160x31	160x160x69
Protection Degree	IP54	IP54 / Class I
Weight	0.18 kg	0.68 kg
Air Flow Rate	100 (140) m <sup>3</sup> /h	
Power Supply V/Hz	230V 50-60Hz	
Power Consumption	26 (23) W	
Current Consumption	0.14/0.13 A	
Overcurrent Protection	Impedance	
Electrical Connection	Lead wire	
Noise Level	42 (46) dB(A)	
Flow Direction	Outside-In	
Bearing	Ball	
Operating Temperature	-10/70 °C	
Plastic Material	UL94 V0 ABS Flame Retardant	
Gasket	Polyurethane sealing	
Colour	RAL7035 (RAL7032 on request)	
Mounting	Fast Clip-on	
Conformity	CE	



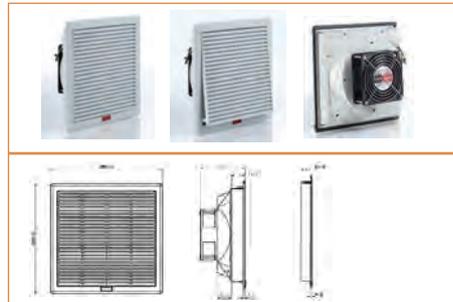
Filter Fans 240m<sup>3</sup>/h

Models	PFI 2500	PTF 3500
Dimensions mm	260x260x31	260x260x116
Protection Degree	IP54	IP54 / Class I
Weight	0.48 kg	1.6 kg
Air Flow Rate	240 (270) m <sup>3</sup> /h	
Power Supply V/Hz	230V 50-60Hz	
Power Consumption	37 (35) W	
Current Consumption	0.23/0.22 A	
Overcurrent Protection	Impedance	
Electrical Connection	3-pole terminal	
Noise Level	52 (53) dB(A)	
Flow Direction	Outside-In	
Bearing	Ball	
Operating Temperature	-10/70 °C	
Plastic Material	UL94 V0 ABS Flame Retardant	
Gasket	Polyurethane sealing	
Colour	RAL7035 (RAL7032 on request)	
Mounting	Fast Clip-on	
Conformity	CE	



Filter Fans 30m<sup>3</sup>/h

Models	PFI 1000	PTF 1000
Dimensions mm	110x110x20.5	110x110x58.5
Protection Degree	IP54	IP54 / Class I
Weight	10 kg	40 kg
Air Flow Rate	-	30 (41) m <sup>3</sup> /h
Power Supply V/Hz	-	230V 50-60Hz
Power Consumption	-	14 (13) W
Current Consumption	-	0.08/0.07 W
Overcurrent Protection	-	Impedance A
Electrical Connection	-	Lead wire
Noise Level	-	28 (31) dB(A)
Flow Direction	-	Outside-In
Bearing	-	Sleeve
Operating Temperature	-10/+70 °C	
Plastic Material	UL94 V0 ABS Flame Retardant	
Gasket	Self-Adhesive	
Colour	RAL7035 (RAL7032 on request)	
Mounting	Fast Clip-on	
Conformity	CE	



Filter Fans 115m<sup>3</sup>/h

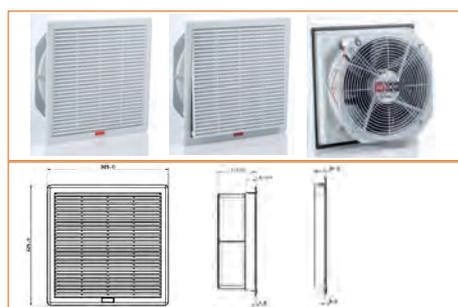
Models	PFI 2500	PTF 2500
Dimensions mm	260x260x31	260x260x103
Protection Degree	IP54	IP54 / Class I
Weight	0.48 kg	1.18 kg
Air Flow Rate	115 (130) m <sup>3</sup> /h	
Power Supply V/Hz	230V 50-60Hz	
Power Consumption	26 (23) W	
Current Consumption	0.14/0.13 A	
Overcurrent Protection	Impedance	
Electrical Connection	3-pole terminal	
Noise Level	42 (46) dB(A)	
Flow Direction	Outside-In	
Bearing	Ball	
Operating Temperature	-10/70 °C	
Plastic Material	UL94 V0 ABS Flame Retardant	
Gasket	Polyurethane sealing	
Colour	RAL7035 (RAL7032 on request)	
Mounting	Fast Clip-on	
Conformity	CE	



Filter Fans 650m<sup>3</sup>/h

Models	PFI2500	PTF4500
Dimensions mm	260x260x31	260x260x111
Protection Degree	IP54	IP54 / Class I
Weight	0.48 kg	2.84 kg
Air Flow Rate	650 (900) m <sup>3</sup> /h	
Power Supply V/Hz	230V 50-60Hz	
Power Consumption	66 (75) W	
Current Consumption	0.35/0.38 A	
Overcurrent Protection	Thermal	
Electrical Connection	4-pole terminal	
Noise Level	60 (63) dB(A)	
Flow Direction	Outside-In	
Bearing	Ball	
Operating Temperature	-10/70 °C	
Plastic Material	UL94 V0 ABS Flame Retardant	
Gasket	Polyurethane sealing	
Colour	RAL7035 (RAL7032 on request)	
Mounting	Fast Clip-on	
Conformity	CE	

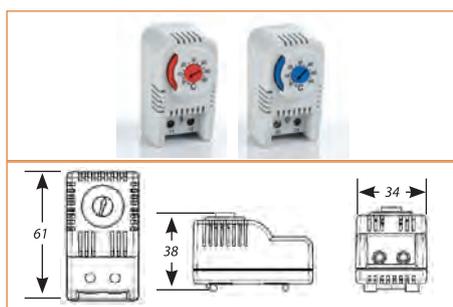
## Ventilation

Filter Fans 850m<sup>3</sup>/h

Models	PFI 3000	PTF 5000
Dimensions mm	325x325x31	325x325x111
Protection Degree	IP54	IP54 / Class I
Weight	0.7 kg	4.12 kg

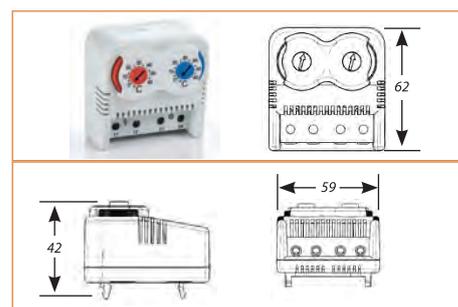
Air Flow Rate	850 (1200) m <sup>3</sup> /h
Power Supply V/Hz	230V 50-60Hz
Power Consumption	110 (140) W
Current Consumption	0.50/0.72 A
Overcurrent Protection	Thermal
Electrical Connection	4-pole terminal
Noise Level	65(68) dB(A)
Flow Direction	Outside-In
Bearing	Ball
Operating Temperature	-10/70 °C
Plastic Material	UL94 V0 ABS Flame Retardant
Gasket	Polyurethane sealing
Colour	RAL7035 (RAL7032 on request)
Mounting	Fast Clip-on
Conformity	CE

## Temperature Control



## Thermostat

Models	PTHT	PTVT
Contact Function	NC	NO
Temperature Setting Range	0-60 °C	0-60 °C
Colour of Potentiometer	RED	BLUE
250V AC / 120V AC	10 (2) A	15 (2) A
Sensor Type	Bimetal	
Contact Type	Snap Action	
Service Life	Cycle > 100.000	
Electrical Connections	2-Pole Terminal	
Plastic Material	UL94 V0 ABS Flame Retardant	
Protection Degree	EN60529 IP20	
Operating Temperature	-25 / +80 °C	
Storage Temperature	-45 / +80 °C	
Mounting	Clip for mounting on DIN rail 35mm	
Installation Position	Variable	
Conformity	CE	
Dimensions HxWxD	61x34x38 mm	
Weight	45 g	



## Double Thermostat

Models	PTHV
Contact Function	NC+NO
Temperature Setting Range	0-60 / 0-60 °C
Colour of Potentiometer	RED + BLUE
250V AC / 120V AC	10 (2) / 15 (2) A
Sensor Type	Bimetal
Contact Type	Snap Action
Service Life	Cycle > 100.000
Electrical Connections	4-Pole Terminal
Plastic Material	UL94 V0 ABS Flame Retardant
Protection Degree	EN60529 IP20
Operating Temperature	-25 / +80 °C
Storage Temperature	-45 / +80 °C
Mounting	Clip for mounting on DIN rail 35mm
Installation Position	Variable
Conformity	CE
Dimensions HxWxD	65x59x42 mm
Weight	80 g

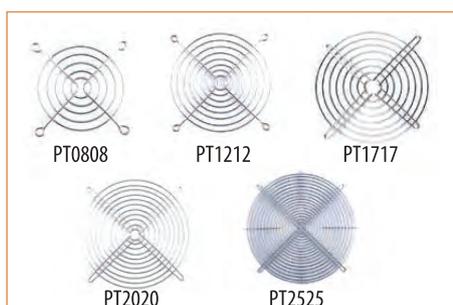
## Panel Accessories



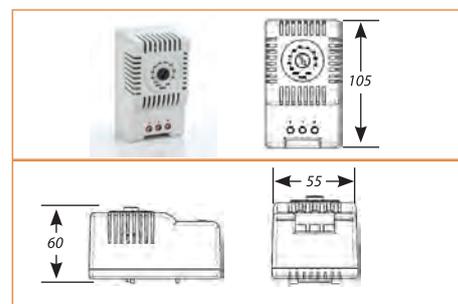
Code	Description	Pack in Pcs
PFM1000	Filtermat for PFI1000	10
PFM1500	Filtermat for PFI1500	10
PFM2500	Filtermat for PFI2500	10
PFM3000	Filtermat for PFI3000	10



Code	Description	Pack in Pcs
PPCA4	Drawing Pocket A4 Size	10



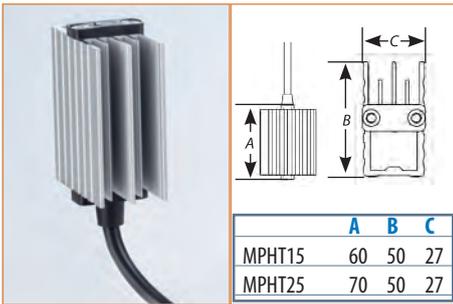
Code	Description	Pack in Pcs
PT0808	Metallic protection grill for 80x80mm	100
PT1212	Metallic protection grill for 120x120mm	100
PT1717	Metallic protection grill for 170x170mm	100
PT2020	Metallic protection grill for 225x225mm	100
PT2525	Metallic protection grill for 280x280mm	100



## Humidity Control Mechanical Hygroat

Models	PHG02
Power Supply	110-250 V AC
Setting Range	%RH 10-90
Colour of Potentiometer	BLACK
Current	A 10-5
Differential	%5, max. %10
Sensor Type	Polyamide ribbon
Electrical Connections	3-Pole Terminal
Electrical Section Wires	From 0,75mm <sup>2</sup> to 4.0mm <sup>2</sup>
Operating Temperature	+10 / +60 °C
Storage Temperature	+10 / +60 °C
Protection Degree	IP20
Colour	RAL7035
Mounting	Clip for mounting on DIN rail 35mm
Dimensions HxWxD	105x60x55 mm
Weight	180 g

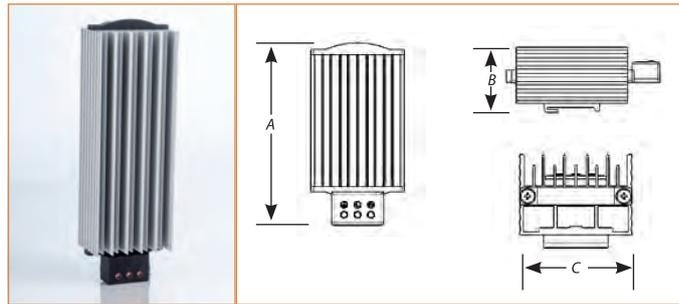
Heating



	A	B	C
MPHT15	60	50	27
MPHT25	70	50	27

Mini PTC Heaters

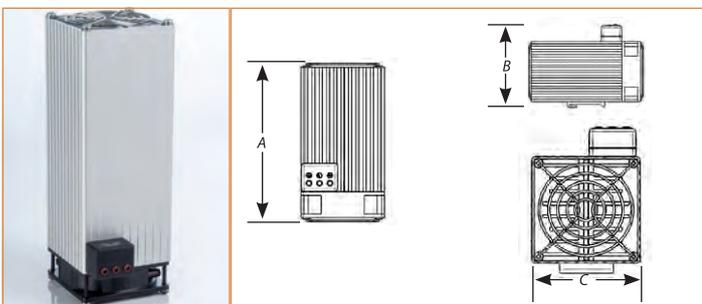
Model	MPHT 15	MPHT 25
Heating Capacity	15 W	25 W
Dimensions HxWxD	60x50x27 mm	70x50x27 mm
Weight	0.11 kg	0.12 kg
Power Supply	110-250V AC DC V	
Max. Current	2A	
Heating Element Type	PTC resistor, self regulating	
Overcurrent Protection	Electronic thermal overload	
Electrical Connections	Lead wire 30cm L-N-E	
Protection Class IEC	Class II	
Protection Degree EN60529	IP20	
Operating Temperature	-45 / +70 °C	
Storage Temperature	-45 / +70 °C	
Radiator	Alluminium profile, anodized	
Mounting	Clip for mounting on DIN rail 35mm	
Installation Position	Best efficiency in vertical position	
Conformity	CE	



PTC Heaters

Models	PHT 030	PHT 050	PHT 075	PHT 100	PHT 150
Heating Capacity	30W	50W	75W	100W	150W
Dimensions HxWxD	128x70x59 mm	138x70x59 mm	178x70x59 mm	188x70x59 mm	228x70x59 mm
Weight	0.41 kg	0.44 kg	0.54 kg	0.59 kg	0.72 kg
Max. Current	2A	2A	4A	4A	6A
Power Supply	110-250V AC DC V				
Heating Element Type	PTC resistor, self regulating				
Overcurrent Protection	Electronic thermal overload				
Electrical Connections	3-pole terminal N-L-E				
Protection Class IEC	Class II				
Protection Degree EN60529	IP20				
Operating Temperature	-45 / +70 °C				
Storage Temperature	-45 / +70 °C				
Radiator	Alluminium profile, anodized				
Mounting	Clip for mounting on DIN rail 35mm				
Installation Position	Best efficiency in vertical position				
Conformity	CE				

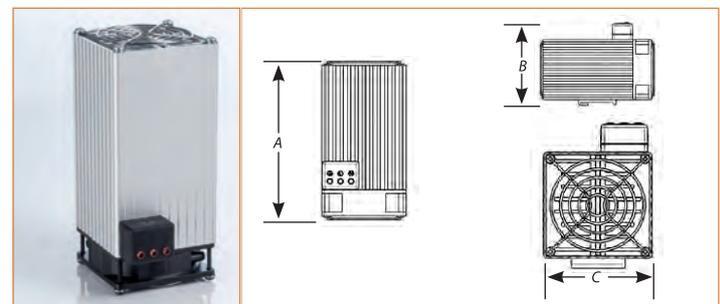
	A	B	C
PHT030	128	59	70
PHT050	138	59	70
PHT075	178	59	70
PHT100	188	59	70
PHT150	228	59	70



PTC Heaters with Fan

Model	PFHT 100	PFHT 150
Heating Capacity	100 W	150 W
Dimensions HxWxD mm	170x89x60	210x89x60
Weight	0.7 kg	0.94 kg
Max. Current	4A V	6A V
Power Supply	110-250V AC DC V	
Heating Element Type	PTC resistor, self regulating	
Axial Fan	60x60x30mm 16m³/h	
Overcurrent Protection	Electronic thermal overload	
Electrical Connections	3-pole terminal N-L-E	
Protection Class IEC	Class II	
Protection Degree EN60529	IP20	
Operating Temperature	-45 / +70 °C	
Storage Temperature	-45 / +70 °C	
Radiator	Alluminium profile, anodized	
Mounting	Clip for mounting on DIN rail 35mm	
Installation Position	Best efficiency in vertical position	
Conformity	CE	

	A	B	C
PFHT100	170	89	60
PFHT150	210	89	60



Resistance Heaters with Fan

Model	PFHT 250	PHT 750	PHT 500
Heating Capacity	250 W	750 W	500 W
Dimensions HxWxD	152x80x110 mm	232x80x110 mm	182x80x110 mm
Weight	0.98 kg	1.45 kg	1.2 kg
Max. Current	1.2A V	3.6A V	2.4A V
Power Supply	230V 50/60 Hz V		
Heating Element Type	Resistance Heater		
Axial Fan	80x80x25mm 35m³/h		
Overcurrent Protection	Electronic thermal overload		
Electrical Connections	3-pole terminal N-L-E		
Protection Class IEC	Class I, earthed		
Protection Degree EN60529	IP20		
Operating Temperature	-25 / +70 °C		
Storage Temperature	-25 / +70 °C		
Radiator	Alluminium profile, anodized		
Mounting	Clip for mounting on DIN rail 35mm		
Installation Position	Best efficiency in vertical position		
Conformity	CE		

	A	B	C
PFHT250	152	110	80
PFHT500	182	110	80
PFHT750	232	110	80

**Box Cutter – 3 Position Manual**



**Housing** ABS  
**Blade** Zirconium Oxide - replaceable  
**Cutting Depth** 12.7mm (0.5 in)  
**Product size** 178x89x19mm (96gm) 7x3.5x0.75 in (3.4oz)

**Mini Cutter – Auto-retractable**



**Housing** ABS  
**Blade** Zirconium Oxide - replaceable  
**Cutting Depth** 10mm (0.5 in)  
**Product size** 68mm x 38 x 10mm (10gm)  
 2.5 x 1.5 x 0.4 in (0.4oz)

**Manual, Auto-Retract & Smart-Retract Utility Knife - Ceramic Blade**



**Pen Cutter – Auto retractable**



**Housing** ABS  
**Blade** Zirconium Oxide - replaceable  
**Cutting Depth** 12.7mm (0.5 in)  
**Product size** 135mm L x 18mm Ø 5.3in L x 0.75 Ø (3.4oz)

**Safety Cutter – with Micro Ceramic Blade**



**Housing** ABS & Non-slip finish  
**Blade** Zirconium Oxide - Non-replaceable  
**Cutting Depth** 0.5mm (1/32 in)  
**Product size** 62mm x 30 x 6mm (6gm)  
 2.4 x 1.25 x 0.25 in (0.2oz)

**Precision Cutter with Micro-Ceramic Blade**



**Housing** ABS & Non-slip finish  
**Blade** Zirconium Oxide - Non-replaceable  
**Cutting Depth** 1.5mm (1/16 in)  
**Product size** 155mm L x 15mm Ø (22gm)  
 6in L x 0.6 in Ø (0.7oz)

**slice™**

*Why Slice Ceramics?*  
 Made from high-tech Zirconium Oxide, Slice ceramic blades are known for their hardness and durability. They last up to 10x longer than steel, and thanks to our unique manufacturing and sharpening process, they're safer to hold and use compared to traditional metal blades.

**Replacement Blades – Ceramic**

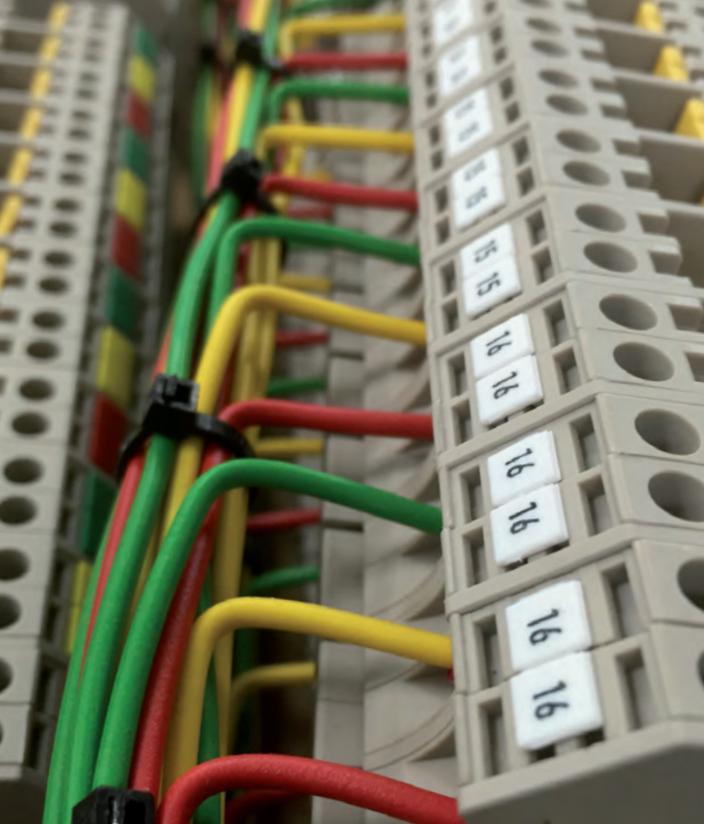


**Box Cutter Technical**  
**Blade** Zirconium Oxide - Replaceable  
**Cutting Depth** Varies by handle  
**Product size** 32mm x 6 x 1mm (0.75gm)  
 1.25 x 0.25 x 0.05 in (0.025oz)

**Craft Knife Technical**  
**Blade** Zirconium Oxide - Replaceable  
**Cutting Depth** Varies by handle  
**Product size** 32mm x 6 x 0.65mm (0.75gm)  
 1.25 x 0.25 x 0.05 in (0.025oz)

- Features**
- ceramic blade utility knife
  - easy, no-tool blade change
  - side slider button
  - durable GFN (Glass Filled Nylon) handle
  - ambidextrous use
  - lanyard hole
  - safer than metal blades™
  - less blade changes = less injuries
  - for use with Slice™ replacement blades
  - includes one ceramic blade
- NON-CONDUCTIVE
  - NON-MAGNETIC
  - CHEMICALLY INERT
  - NEVER RUSTS, STAYS SHARP
  - SAFER THAN METAL BLADES™

**Technical**  
**Blade Material** Zirconium Oxide - replaceable  
**Cutting Depth** 22.86 mm (~1 in) - varies by handle  
**Blade Size** 65 x 12 x 1.3 mm (0.75 gm)  
 2.56 x 0.47 x 0.074 in (0.025 oz)



# A complete cable service

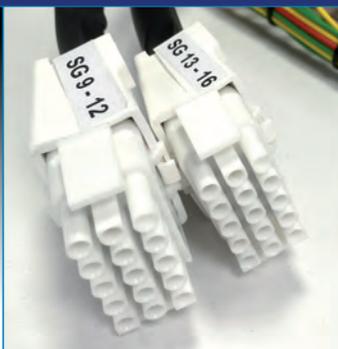
from  
AP Haslam

## A leading supplier of cable and components

AllCables – a subsidiary of AP Haslam – design and supply a full range of cable offerings from simple patch leads to fibre networking. We also provide a bespoke service for your particular needs.

Available from AllCables

- ▲ Serial Cable
- ▲ USB Cables
- ▲ Fibre-optic Networking
- ▲ Home Networking
- ▲ Cable Accessories
- ▲ Bespoke Solutions



# APHASLAM

Industrial Electrical Equipment Specialists

14 Sunshine Industrial Estate, Crumlin Road, Dublin 12

Tel: +353 (1) 453 2522 | Fax: +353 (1) 453 2949

Email: [sales@aphaslam.ie](mailto:sales@aphaslam.ie)



Cables & Leads



Audio

Stereo left and right phono plugs to stereo left and right phono plugs Used for connecting hi-fi systems, TV, and other audio recording hardware.

Description	Part No.
2 Phono to 2 Phono Lead - 1.5m (Gold Plugs)	2RCA – 2RCA 1.5m
2 Phono to 2 Phono Lead - 2m	2RCA – 2RCA 2m
2 Phono to 2 Phono Lead - 3m	2RCA – 2RCA 3m
2 Phono to 2 Phono Lead - 5m	2RCA – 2RCA 5m
2 Phono to 2 Phono Lead - 10m	2RCA – 2RCA 10m
2 Phono to 2 Phono Lead - 15m	2RCA – 2RCA 15m
3.5 Jack - 2 Phono @ 2.5m	3.5mm–2RCA 2.5m
3.5 Jack - 2 Phono @ 5m	3.5mm–2RCA 5m
3.5 Jack - 2 Phono @ 10m	3.5mm–2RCA 10m
3.5 Jack - 2 Phono @ 15m	3.5mm–2RCA 15m
3.5 Jack M-M @ 3m	3.5mm–2RCA 3m
3.5 Jack M-M @ 5m	3.5mm–2RCA 5m
3.5 Jack M-M @10m	3.5mm–Jack-Jack 10m



Display

Description	Part No.
3 PHONO - 3 PHONO @3MT - 3 PHONO - 3PHONO @3MT COMPOSITE LEAD FOR VIDEO + AUDIO SIGNAL.	3RCA 3m
3 PHONO - 3 PHONO @5M - 3 phono - 3 phono l+r audio + video lead @5m	3RCA 5m
3 PHONO - 3 PHONO @ 10M 3 phono - 3 phono l+r audio and video @10m	3RCA 10m
3 PHONO - 3 PHONO @ 15M - 3 phono - 3 phono l+r audio and video @15m	3RCA 15m
3 PHONO - 3 PHONO @20M - 3 phono - 3 phono l+r audio +video lead@20m	3RCA 20m
3 PHONO - 3 PHONO @25M - 3 PHONO - 3 PHONO l+r audio + video @25M	3RCA 25m
3 WAY PHONO JOINER - 3 Way Phono Joiner for L+R Audio + Video	
3.5 JACK 4-POLE (VIDEO) - 3 X RCA @1.5M - used for connecting digital cameras to T.V	
DFP-DFP M-M - 2m (Black) - Digital Flat Panel Display Cable.	



Description	Part No.
HDMI cable M-M - 1m - high quality HDMI leads.	HDMI1m
HDMI cable M-M - 2m - high quality HDMI leads.	HDMI2m
HDMI cable M-M - 3m - high quality HDMI leads.	HDMI3m
HDMI cable M-M - 5m - high quality HDMI male -male lead.	HDMI5m
HDMI cable M-M - 10m - high quality HDMI male -male leads.	HDMI10m
HDMI cable M-M - 15m - high quality HDMI lead male - male.	HDMI15m
HDMI cable M-M - 20m - high quality HDMI leads male-male.	HDMI20m
HDMI cable M-M - 25m - high quality HDMI leads male-male.	HDMI25m
HDMI cable M-M - 30m - High quality HDMI cable.	HDMI30m
HDMI cable M-M - 40m - high Quality hdmi lead male - male	HDMI40m



Display

Description	Part No.
VGA OVER CAT 5 CONVERTOR - This devices allows you to send a vga signal over cat cable up to 150m, also allows multiply connection of monitors.	POA
XGA - 5BNC plugs - 10m (Black) - HIGH QUALITY XGA - 5 BNC LEADS BLACK.	
XGA - 5BNC Plugs - 2m (Black) - XGA male <-> 5 x BNC, male with ferrite.	
XGA - 5BNC Plugs - 5m (Black) - HIGH QUALITY XGA - 5 BNC plugs.	



High quality XGA lead to connect a PC to a high resolution display

Description	Part No.
XGA Lead M-M - 2m (Black)	VGAMMB2M
XGA Lead M-M - 3m (Black)	VGAMMB3M
XGA Lead M-M - 5m (Black)	VGAMMB5M
XGA Lead M-M - 10m (Black)	VGAMMB10M
XGA Lead M-M - 15m (Black)	VGAMMB15M
XGA Lead M-M - 20m (Black)	VGAMMB20M
XGA Lead M-M - 30m (Black) - High quality XGA lead.	VGAMMB30M



USB

Description	Part No.
USB 10MT REPEATER CABLE - USB repeater cable 10MT cable	USB2-REP10
USB 20MT REPEATER CABLE - high quality USB booster cable @20M	DA 70120
USB 5MT REPEATER CABLE - high quality USB booster cable @5M	DA 70117



USB A-A @2M - high quality USB A-A link cable	USBAA1.8
USB A-A @3M - high quality USB A-A link @3M	USBAA3m
USB A-A @5M - high quality USB A-A link @5M	USBAA5m
USB A-A MALE-FEMALE extension cable @1M	USBAA1MF
USB A-A MALE-FEMALE extension cable @3M	USBAA3MF
USB A-A MALE-FEMALE extension cable @5M	USBAA5MF
USB A-B PRINTER CABLE @1M - high quality USB A-B printer cables @1M	USBAB1M
USB A-B PRINTER CABLE @2M - high quality USB A-B printer cable	USBAB2M
USB A-B PRINTER CABLE @3M - high quality USB A-B printer cables	USBAB3M
USB A-B PRINTER CABLE @5M - high quality USB A-B printer cables	USBAB5M

Cables & Leads



**Fibre**

- LC-LC MM 62.5/125 10M (for singlemode leads please call our Sales Office)
- LC-LC MM 62.5/125 2M
- LC-LC MM 62.5/125 5M
- SC-SC MM 62.5/125 10M - SC-SC 62.5/125 MULTIMODE FIBRE LEADS @ 10M
- SC-SC MM 62.5/125 1M - Fiber Optical Patch Cord 62.5/125 1M
- SC-SC MM 62.5/125 2M - SC-SC 62.5/125 MULTIMODE FIBRE LEADS @ 2M
- SC-SC MM 62.5/125 3M - SC-SC 62.5/125 MULTIMODE FIBRE LEADS
- SC-SC MM 62.5/125 5M - SC-SC 62.5/125 MULTIMODE FIBRE LEADS @ 5M



- SC-ST MM 62.5/125 1M
- SC-ST MM 62.5/125 2M
- SC-ST MM 62.5/125 5M
- ST-ST MM 62.5/125 10M
- ST-ST MM 62.5/125 1M
- ST-ST MM 62.5/125 2M
- ST-ST MM 62.5/125 3M
- ST-ST MM 62.5/125 5M - ST - ST MULTIMODE 62/125 FIBRE LEADS



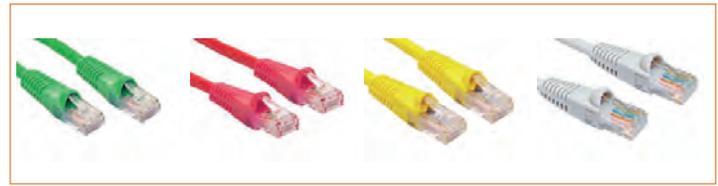
**Firewire**

- FIREWIRE 4-4 PIN LEAD @2M - High quality firewire leads 4pin - 4pin @2m
- FIREWIRE 4-4 PIN LEAD @5M - high quality firewire leads 4-4 PIN @5MTR
- FIREWIRE 6 PIN F/F JOINER - firewire 6 PIN female - female joiner
- FIREWIRE 6-4 PIN LEAD @2M - high quality firewire lead 6-4 @2M
- FIREWIRE 6-4 PIN LEAD @5M - high quality firewire lead 6-4 PIN @5M
- FIREWIRE 6-6 PIN LEAD @2M - high quality firewire 6-4 PIN @2MT
- FIREWIRE 6-6 PIN LEAD @5M - high quality firewire leads 6 - 6 pin @5mtrs



- FIREWIRE 9 - 4 PIN (800 series) @ 2m - Firewire 9 pin to 4 pin 800 series @ 2m
- FIREWIRE 9-9 (800 series) @5M - firewire 9-9 (800 series) @5M
- FIREWIRE 9-9 800 series @2m - firewire 9-9 (800 series) @2m

FireWire extension repeater lead 6 pin male - female @ 5m - FireWire extension repeater cable 6 pin male to female @ 5m. Allows you to boost existing firewire signal. These leads can be joined together to boost upto 25mtrs..



**Network**

Standard CAT5 patch lead for connecting a computer or other device to a hub or RJ45 network point.

Description	Colour	Part No.
CAT5E UTP patch lead - 0.5 m	Grey	C5PC0.5M
CAT5E UTP patch lead - 1 m	Grey	C5PC1.0M
CAT5E UTP patch lead - 2 m	Grey	C5PC2.0M
CAT5E UTP patch lead - 3 m	Grey	C5PC3.0M
CAT5E UTP patch lead - 5 m	Grey	C5PC5.0M
CAT5E UTP patch lead - 7 m	Grey	C5PC7.0M
CAT5E UTP patch lead - 10 m	Grey	C5PC10M
CAT5E UTP patch lead - 20 m	Grey	C5PC20M
CAT5E UTP patch lead - 30 m	Grey	C5PC30M

Colours available on request.



**For 10/100Base-TX and 1000Base-TX (Gigabit Ethernet)**

Description	Colour	Part No.
CAT6 UTP patch lead - 1 m	Grey	CPC1.0M
CAT6 UTP patch lead - 2 m	Grey	CPC2.0M
CAT6 UTP patch lead - 3 m	Grey	CPC3.0M
CAT6 UTP patch lead - 5 m	Grey	CPC5.0M
CAT6 UTP patch lead - 10 m	Grey	CPC10.0M

Colours available on request.



**Serial**

Description	Part No.
D25 M-M Link Cable @ 10 metres - D-25 Link Cable (straight through).	D25MM10M
D25 M-M Link Cable @ 2 metres - D-25 Link Cable (straight through).	D25MM2M
D25 M-M Link Cable @ 5 metres - D-25 Link Cable (straight through).	D25MM5M
D9 F-F @ 2 metres - D9 Link Cable female to female (straight through).	D9FFMM2M
D9 M-F @ 2 metres - D9 Extension Cable male to female (straight through).	D9MF2M
D9 M-M @ 2 metres - D9 Link Cable male to male (straight through).	D9MM2M



### Adaptors & Connectors



**BNC**  
 BNC (F) - Phono (M) Adapters Bnc Female - Phono Male Adapters  
 BNC (M) - Phono (F) Adapters Bnc Male - Phono Female Adapters  
 BNC PSF 1/3 Crimp Plugs PSF 1/3 75ohm crimp plugs for PSF 1/3 coax cable  
 BNC RG 174 Crimp Plug RG174 BNC 50ohm crimp plug for RG 174 cable  
 BNC RG 59 Crimp Plug RG 59 BNC 75 ohm crimp plug for RG 59 coax cable



BNC RG 6 Crimp Plug RG 6 BNC 75ohm crimp plugs for RG 6 coax cable  
 BNC RG-58 Crimp Plug RG 58 BNC plug crimp type for RG 58 coax cable  
 BNC RG11 Crimp Plug RG 11 BNC 50 ohm crimp plug for RG 11 coax cable  
 BNC RG179 CRIMP PLUG RG 179 BNC 75ohm crimp plug for rg 179 coax cable

SMA, SMB, N-TYPE , PL259 + other various connectors we have a wide variety of  
 SMA, SMB, N-TYPE + other various types of connectors  
 Please call our Sales office on 01 453 25 22 for prices and availability

### D Type



D15 Female Solder Sockets  
 D15 Male Solder Plugs  
 D25 Female Solder Sockets  
 D25 Male Solder Plugs



D9 Female Solder Type Sockets  
 D9 Male Solder Type Plugs  
 (Serial) Female Adapter Used to join PS2 with serial / D9 / RS232  
 (Serial) Male Adapter Used to convert from PS2 to Serial / D9 / RS232 & vice versa  
 VGA Female Solder Sockets  
 VGA Solder Male Plug



**RJ11**  
**Description**  
 RJ 11 (4 way) Plugs RJ 11 4WAY Telephone Plugs  
 is a physical interface often used for terminating telephone wires.  
 RJ 12 6 WAY Plugs RJ 12 6WAY Plugs for 6 Way Telephone Cable  
**Part No.**  
 RJ11 Plug  
 RJ12 Plug



RJ 45 CAT 5 Plugs RJ 45 Network Plugs for Cat 5 Cable MHRJ45-8P8CK  
 RJ 45 Shielded Cat 5 Plugs RJ 45 Shielded Cat 5 Plugs for Cat 5 Network Cable  
 RJ 49 (10 WAY ) PLUGS  
 RJ 9 (4 way smaller then telephone ) Plugs RJ 9 Plugs for Telephone Handsets

### Bulk Cable



**Coaxial**  
 RG6 Satellite Video Coax Cable @100M  
 RG179 Mini Coax Cable (75 OHM) @100M RG179 Mini Coax Cable for Video  
 RG 58 Coax Cable 50 OHM @100M ROLL  
 RG59 Coax 75 OHM RG59 Coax Cable @100M (75 OHM) For Video Signal

### Tools & Testers



**Crimp**  
 Crimp Tool for RG 179 BNC Plugs  
 Crimp Tool for RG 58 + RG 59 BNC Plugs



RJ 45 Crimp Tool - RJ 45 Crimp Tool For CAT 5 Cables  
 RJ11/12/45 Multi Crimp Tool - Crimp Tool FOR RJ11 , RJ12 , RJ45 Plugs

Please call our Sales office on 01 453 25 22 for prices and availability

Power Accessories



Power Cables

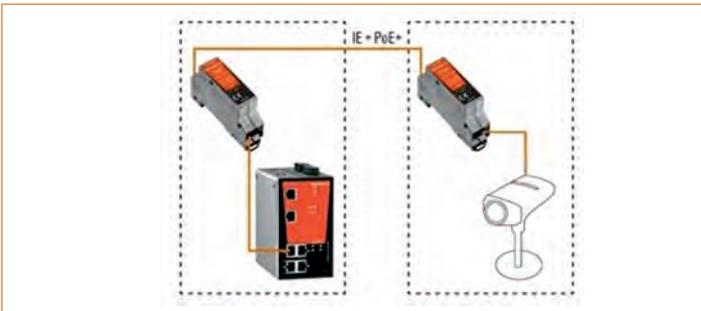
C19 - C20 16 AMP POWER LEADS @2.5MT - 16 amp C19 to C20 power leads @ 2.5mt  
 C19 TO UK PLUG @2M - C19 connector to UK power plug @ 2M

CLOVER POWER LEADS @ 2M - high quality clover power leads @ 2M  
 EUROPEAN POWER LEADS @ 2M (2-PIN) - high quality European power leads @ 2M (2 PIN)  
 FIGURE 8 POWER LEADS @ 2M - high quality figure 8 power lead @ 2M



IEC KETTLE LEAD @ 2M - high quality IEC kettle mains leads @ 2MT  
 IEC KETTLE LEADS @5M high quality IEC mains kettle leads @ 5M  
 IEC MALE - FEMALE extension lead @0.5M  
 IEC MALE - FEMALE EXTENSION LEADS @ 1M - high quality IEC male - female extension leads  
 IEC MALE - FEMALE EXTENSION LEADS @ 2M - high quality IEC male - female extension leads  
 IEC MALE - FEMALE EXTENSION LEADS @ 3M - high quality IEC male - female extension leads

Networking



RJ45 JOINERS  
 RJ45 joiners for connecting two network cables together

Cable Management



MILLITIES @ 12INCHS PK OF 100 (clear,black or grey) - award winning revolutionary multi-purposed tie fastener in packs of 100 in either black , clear or grey  
 ZIP TIES @ 14 INCH PK OF 100 (black or clear)  
 ZIP TIES @ 30 INCH PK OF 100 clear 30 inch - zip ties pk of 100 in clear.  
 Ideal for campaign election posters  
 ZIP TIES @ 4 INCHS PK OF 100 (black or clear) - zip ties @ 4 inches (PK OF 100) black or clear  
 ZIP TIES @ 7INCHS PK OF 100 (black or clear) - black or clear 6 inch zip ties in black or clear

# PROVERTHA®

CONNECTORS, CABLES & SOLUTIONS

Connectors and hoods

- D-Sub Connectors and hoods
- Mixed layout and 600V D-Sub
- High density D-Sub
- Filter D-Sub
- Profibus and CAN-Bus bus connectors
- Profibus and CAN-Bus M12
- Profinet M12 D-code



Cable assemblies

- Individual data and power cables for industrial automation, industrial electronics, medical industry and telecommunications
- System cables
- Wire harnesses
- Cable assemblies
- Overmoulded harness assemblies



Solutions

- Contract manufacturing
- Plastic moulding and assembly
- Tool manufacturing
- Complete solutions including tool-making and reliable production on assembly machines



Development

- Customized connectors and electro-mechanical subassemblies in economic design optimized for the application
- Complete solutions including purchase and logistics



Profinet M12

- 360° EMU/RFI IP67
- Connectors turned crimp contacts crimp flange
- 4 pin D-Code



Profinet M12 Patch Cords

- 360° EMU/RFI IP67
- From 0,3 to 10 meters
- Version: Male/Male, Male/Female, Female/Female, x-over versions



M12 Industrial Ethernet Rear Mount Version

- 4 pin B-Code
- 5 pin A-Code
- 4 pin D-Code



M12 Industrial Ethernet Front Mount Version

- 4 pin B-Code
- 5 pin A-Code
- 4 pin D-Code



DIN Rail Adapter Compact and Special

- 360° EMU/RFI crimp flange
- 2 cable exits
- Quick and easy clip on assembly



Distribution boxes for DIN rails

- Passive distribution boxes for signal distribution
- 360° EMU/RFI shielding achieved by fully closed full-metal housing
- Quick and easy clip on assembly



# You want to control your systems more efficiently. Weidmüller are offering a new dimension of service interfaces FrontCom® Vario



## Easy access to the PLC and functional electronics FrontCom® Vario is setting new standards

Optimum system control and high system productivity ensure that your company remains productive and profitable, in addition to giving you that invaluable competitive edge. Attaching protected service interfaces to the housing walls of your cabinets is a simple, well-proven solution used to effectively boost your system's availability and productivity. You can then grant your technicians quick and safe access to the control elements and functional electronics in the cabinet at any time, conveniently doing so from outside – through the closed cabinet door. This means that you can have a wealth of service work performed during ongoing operation and don't have to wait on specially authorised professionals. At the same time, the risk of misuse or accidents is drastically reduced.

### Benefits of modern service interfaces

- Faster work processes
- Production data is read out quickly
- Convenient troubleshooting, error configuration and error programming
- No downtimes caused by having to wait for authorised professionals
- Fewer risks caused by incorrect operation inside the cabinet
- Higher operational reliability and reduced risk of accidents
- Optimised system availability

## The new dimension of service interfaces

With FrontCom® Vario, we have developed a service interface that sets new standards. It requires only half the space of conventional service interfaces – and also boasts plenty of intelligent details that mean a multitude of maintenance and optimisation processes can be performed on your systems in a far more efficient manner and thus at a far more affordable price. The FrontCom® Vario is therefore a clever investment that delivers a wealth of attractive benefits.

## Additional benefits of the FrontCom® Vario

- Takes up half the space of conventional service interfaces
- Fewer installation costs as the data, signal and power connections are housed in a single frame
- Future-proof technology thanks to data transmission pursuant to the latest Cat.6A standard
- Optimally equipped for greater security and comfort during operation and maintenance tasks
- Perfect planning reliability thanks to a future-proof portfolio for the most diverse applications
- High flexibility thanks to a variety of possible customisations and combinations

Find out more about the new FrontCom® Vario service interfaces at:

[www.weidmueller.com/frontcom](http://www.weidmueller.com/frontcom)

You want to configure your interface online right now – no problem: <http://galaxy.weidmueller.com/frontcom>



**1. INTERPRETATION****1.1** In these Conditions:

means the person who accepts a quotation or other proposal of the Seller for the sale of the Goods or whose order for the Goods is accepted by the Seller.

“**GOODS**” means the goods (including any instalment of the Goods or any part of them) which the Seller is to supply in accordance with these Conditions.

“**SELLER**” means AP Haslam Limited having its registered office at 14 Sunshine Estate, Crumlin Road, Dublin 12, Ireland.

“**CONDITIONS**” means the standard terms and conditions of sale set out in this document and (unless the context otherwise requires) included any special terms and conditions agreed in writing between the Buyer and the Seller.

“**CONTRACT**” means the contract for the purchase and sale of the Goods.

“**WRITING**” includes telex, cable, facsimile transmission and comparable means of communication.

1.2 Any reference in these Conditions to any provision of a statute shall be construed as a reference to that provision as amended, re-enacted or extended at the relevant time.

1.3 The headings in these Conditions are for convenience only and shall not affect their interpretation.

**2. BASIS OF THE SALE**

2.1 The Seller shall sell and the Buyer shall purchase the Goods in accordance with any written quotation of the Seller which is accepted by the Buyer, or any order of the Buyer which is accepted by the Seller, subject in either case to these Conditions, which shall govern the Contract to the exclusion of any other terms and conditions subject to which any such quotation or order is accepted or purported to be accepted, or any such order is made or purported to be made, by the Buyer.

2.2 No variation to these Conditions shall be binding unless agreed in Writing between the authorised representatives of the Buyer and the Seller.

2.3 The Seller's employees or agents are not authorised to make any representations concerning the Goods unless confirmed by the Seller in Writing. In entering into the Contract the Buyer acknowledges that it does not rely on, and waives any claim for breach of, any such representations which are not so confirmed.

2.4 Any advice or recommendation given by the Seller or its employees or agents to the Buyer or its employees or agents as to the storage, application or use of the Goods which is not confirmed in Writing by the Seller is followed or acted upon entirely at the Buyer's own risk, and accordingly the Seller shall not be liable for any such advice or recommendation which is not so confirmed.

2.5 Any typographical, clerical, or other error or omission in any sales literature, quotation, price list, acceptance of offer, invoice or other document or information issued by the Seller shall be subject to correction without any liability on the part of the Seller.

**3. ORDERS AND SPECIFICATIONS**

3.1 The Buyer shall be responsible to the Seller for ensuring the accuracy of the terms of any order (including any application specifications) submitted by the Buyer, and for giving the Seller any necessary information relating to the Goods within a sufficient time to enable the Seller to perform the Contract in accordance with its terms.

3.2 The quantity, quality and description of and any specification for the Goods shall be those set out in the Seller's quotation (if accepted by the Buyer) or the Buyer's order (if accepted by the Seller).

3.3 If the Goods are to be manufactured or any process is to be applied to the Goods by the Seller in accordance with a specification submitted by the Buyer, the Buyer shall indemnify the Seller against all loss, damages, costs and expenses awarded against or incurred by the Seller in connection with or paid or agreed to be paid by the Seller in settlement of any claim for infringement of any patent, copyright, design, trade mark or other industrial or intellectual property rights of any other person which results from the Seller's use of the Buyer's specification.

3.4 The Seller reserves the right to make any changes in the specification of the Goods which are required to conform with any applicable safety or other statutory requirements or, where the Goods are to be supplied to the Seller's specifications, which do not materially affect their quality or performance.

3.5 No order which has been accepted by the Seller may be cancelled by the Buyer except with the agreement in Writing of the Seller and on terms that the Buyer shall indemnify the Seller in full against all loss (including loss of profit), cost, (including the cost of all labour and materials used), damages, charges and expenses incurred by the Seller as a result of cancellation.

**4. PRICE OF THE GOODS**

4.1 The price of the Goods shall be the Seller's quoted price or, where no price has been quoted (or a quoted price is no longer valid), the price listed in the Seller's published price list current at the date of acceptance of the order. Where the Goods are supplied for export from Ireland, the Seller's published export price list shall apply. All prices quoted are valid for 30 days only after which time (unless they have been accepted by the Buyer within that time) they may be altered by the Seller without giving notice to the Buyer.

4.2 The Seller reserves the right, by giving notice to the Buyer at any time before delivery, to increase the price of the Goods to reflect any increase in the cost to the Seller which is due to any factor beyond the control of the Seller (such as, without limitation, any foreign exchange fluctuation, currency regulation, alteration of duties, significant increase in the costs of labour, materials or other costs of manufacture), any change in delivery dates, quantities or specifications for the Goods which is requested by the Buyer, or any delay caused by any instruction of the Buyer or failure of the Buyer to give the Seller adequate information or instructions.

4.3 Except as otherwise stated under the terms of any quotation or in any price list of the Seller, and unless otherwise agreed in Writing between the Buyer and the Seller, all prices are given by the Seller on an ex works basis, and where the Seller agrees to deliver the Goods the Buyer shall be liable to pay the Seller's charge for transport, packaging and insurance.

4.4 The price is exclusive of any applicable value added tax, which the Buyer shall be additionally liable to pay to the Seller.

4.5 The cost of pallets and returnable containers will be charged to the Buyer in addition to the price of the Goods, but full credit will be given to the Buyer provided they are returned undamaged to the Seller before the due payment date.

**5. TERMS OF PAYMENT**

5.1 Subject to any special terms agreed in Writing between the Buyer and the Seller, the Seller shall be entitled to invoice the Buyer for the price of the goods on or at any time after delivery of the Goods, unless the Goods are to be collected by the Buyer or the Buyer wrongfully fails to take delivery of the Goods, in which event the Seller shall be entitled to invoice the Buyer for the price at any time after the Seller has notified the Buyer that the Goods are ready for collection or (as the case may be) the Seller has tendered delivery of the Goods.

5.2 The Buyer shall pay the price of the Goods within 30 days of the last day of the month in which the Seller issued its invoice, notwithstanding that delivery may not have taken place and the property in the Goods has not passed to the Buyer. The time for payment of the price shall be of the essence of the Contract. Receipts for payment will be issued only upon request.

5.3 If the Buyer fails to make any payment on the due date then, without prejudice to any other right or remedy available to the Seller, the Seller shall be entitled to:

5.3.1 Cancel the contract or suspend any further deliveries to the Buyer;

5.3.2 Appropriate any payment made by the Buyer to such of the Goods (or the Goods supplied under any other contract between the Buyer and the Seller) as the Seller may think fit (notwithstanding any purported appropriation by the Buyer); and

5.3.3 Charge the Buyer interest (both before and after any judgement) on the amount unpaid, at the rate of 4 per cent per annum above one month Dublin inter bank rate from time to time, until payment in full is made (a part of a month being treated as a full month for the purpose of calculating interest).

**6. DELIVERY**

6.1 Delivery of the Goods shall be made by the Buyer collecting the Goods at the Seller's premises at any time after the Seller has notified the Buyer that the Goods are ready for collection or, if some other place for delivery is agreed by the Seller, by the Seller delivering the Goods to the entrance to that place. Off loading the Goods from the Seller's vehicle shall, where possible, be carried out by the Seller but, where the Seller requires assistance from the Buyer in this regard (which the Seller shall be entitled to request at its discretion) such assistance in whatever form, with or without equipment and whether or not the buyer shall have nominated the individual or the equipment concerned, shall be provided by the Buyer at its own risk insofar as any damage or loss may be caused or occasioned to the Goods and/or to the Buyer or its equipment and/or its servants or agents and it is hereby agreed that the Buyer shall not be or be deemed to be the Seller's agent for the purpose of the provision of such assistance.

6.2 Any dates quoted for delivery of the Goods are approximate only and the Seller shall not be liable for any delay in delivery of the Goods howsoever caused. Time for delivery shall not be of the essence unless previously agreed by the Seller in writing.

6.3 Where delivery of the Goods is to be made by the Seller in bulk, the Seller whilst using all reasonable endeavours to deliver an accurate quantity of goods, reserves the right to deliver up to 5 per cent more or 5 per cent less than the quantity stated on the packing without any adjustment in the price, and the quantity so delivered shall be deemed to be the quantity ordered.

6.4 Where the Goods are to be delivered in instalments, each delivery shall constitute a separate contract and failure by the Seller to deliver any one or more of the instalments in accordance with these Conditions or any claim by the Buyer in respect of any one or more instalments shall not entitle the Buyer to treat the Contract as a whole as repudiated.

6.5 If the Seller fails to deliver the Goods for any reason other than any cause beyond the Seller's reasonable control or the Buyer's fault and the Seller is accordingly liable to the Buyer, the Seller's liability shall be limited to the lesser of either the excess (if any) of the cost to the Buyer (in the cheapest available market) of similar goods to replace those not delivered over the price of the Goods or the price of the Goods.

**7. RISK AND RETENTION OF TITLE**

7.1 Risk of damage to or loss of the Goods shall pass to the Buyer:

7.1.1 In the case of Goods to be delivered at the Seller's premises, at the time when the Seller notifies the Buyer that the Goods are available for collection; or

7.1.2 In the case of Goods to be delivered otherwise than at the Seller's premises, at the time of delivery or, if the Buyer wrongfully fails to take delivery of the Goods, the time when the Seller has tendered delivery of the Goods.

7.2 Notwithstanding delivery and the passing of risk in the Goods, or any other provision of these Conditions, the property in the Goods shall not pass to the Buyer until the Seller has received in cash or cleared funds payment in full of all sums due by the Buyer to the Seller for the Goods and on any account whatsoever.

7.3 Until such time as the property in the Goods passes to the Buyer, the Buyer shall hold the Goods as the Seller's fiduciary agent and bailee, and shall keep the goods separate from those of the buyer and third parties and properly stored, protected and insured and identified as the Seller's property.

7.4 Until such time as the property in the Goods passes to the Buyer, the Buyer shall be entitled to resell or use the Goods in the ordinary course of its business. The Buyer shall hold the proceeds of sale (and / or the proceeds of any insurance where appropriate) of any Goods upon trust for the Seller as to the proportion thereof representing the price and shall account to the Seller for same. The Buyer shall hold all such moneys in a separate bank account pending payment to the Seller and shall at all times keep these moneys separate from any moneys or property of the Buyer or third parties.

7.5 Until such time as the property in the Goods passes to the Buyer, (and provided the Goods are still in existence and have not been resold), the Seller shall be entitled at any time to require delivery of the Goods to the Seller failing which, to enter upon any premises of the Buyer or any third party where the Goods are stored and repossess the Goods.

7.6 The Buyer shall not be entitled to pledge or in any way charge by way of security for any indebtedness any of the Goods which remain the property of the Seller, but if the Buyer does so all money owing by the Buyer to the Seller shall (without prejudice to the foregoing prohibition and to any other right or remedy of the Seller) forthwith become due and payable.

7.7 If the Goods are incorporated with or into any other product(s) owned solely or partly by the buyer or by one or more third parties ("the part owner(s)") then the said product(s) shall be deemed to be owned by the Seller and the part owner(s) as tenants in common in accordance with their respective entitlements, and the Buyer shall account to the Seller for that portion of the sale proceeds as represents the Seller's share and in accordance with the provision of clause 7.4 hereof.

7.8 All payments made by a Buyer in relation to a sale of Goods shall be allocated in a manner directed by the Seller at the time of payment. If no specific allocation is made, the Seller shall have absolute discretion as to how such payments shall be allocated in discharge of the price of the Goods sold. The Seller's right of allocation need not be exercised as of the date of payment of any monies but may be exercised at any time the Seller chooses to exercise that right.

**8. WARRANTIES AND EXCLUSION OF LIABILITY**

THIS CLAUSE SHOULD BE READ CAREFULLY. IT LIMITS THE EXTENT OF THE SELLER'S LIABILITY IN CONTRACT, TORT AND OTHERWISE TO THE BUYER

8.1 Subject as expressly provided in these Conditions and except where the Goods are sold to a person dealing as a consumer within the meaning of the Sale of Goods Acts 1893 - 1980 (as amended) all warranties, conditions or other terms implied by statute or common law are excluded to the fullest extent permitted by law.

8.2 Subject to the conditions set out below the Seller warrants that the Goods will correspond with their specification at the time of delivery and will be free from defects in material and workmanship for a period of 12 months from the date of their initial use or 12 months from delivery, whichever is the first to expire.

8.3 The above warranty is given by the Seller subject to the following conditions:

8.3.1 The Seller shall be under no liability in respect of any defect in the Goods arising from any drawing, design or specification supplied by the Buyer;

8.3.2 The Seller shall be under no liability in respect of any defect arising from fair wear and tear, wilful damage, negligence, abnormal working conditions, failure to follow the Seller's instructions (whether oral or in writing), misuse or alteration or repair of the Goods without the Seller's approval;

8.3.3 The Seller shall be under no liability under the above warranty (or any other warranty, condition or guarantee) if the total price for the Goods has not been paid by the due date for payment;

8.3.4 The above warranty does not extend to parts, materials or equipment not manufactured by the Seller, in respect of which the Buyer shall only be entitled to the benefit of any such warranty or guarantee as is given by the manufacturer to the Seller.

8.4 Any claim by the Buyer which is based on any defect in the quality or condition of the Goods or their failure to correspond with specification shall (whether or not delivery is refused by the Buyer) be notified to the Seller within 7 days from the date of delivery or (where the defect or failure was not apparent on reasonable inspection) within a reasonable time after discovery of the defect or failure. If delivery is not refused, and the Buyer does not notify the Seller accordingly, the Buyer shall not be entitled to reject the Goods and the Seller shall have no liability for such defect or failure, and the Buyer shall be bound to pay the price as if the Goods had been delivered in accordance with the Contract.

8.5 Where any valid claim in respect of any Goods which is based on any defect in the quality or condition of the Goods or their failure to meet specifications is notified to the Seller in accordance with these Conditions, the Seller shall be entitled to replace the Goods (or the part in question) free of charge or, at the Seller's sole discretion, refund to the Buyer the price of the Goods (or a proportionate part of the price), and subject only to the provisions of clause 8.6 below the Seller shall have no further liability to the Buyer.

8.6 The Seller shall, subject to the normal rules concerning causation and remoteness of damage (except where the Goods are manufactured and/or any process is applied to the Goods in accordance with the Buyer's specifications) be responsible for liability for death or personal injury caused directly by the use of the Goods as a result of the Seller's negligence provided that the Seller's liability under this clause 8.6 shall not exceed €130,000.00.

8.7 Save as hereinbefore provided, the Seller shall not be liable to the Buyer by reason of any representation, or any implied warranty, condition or other term, or any duty at common law, or under the express terms of the Contract, for any loss or damage, costs, expenses whatsoever (whether caused by the negligence of the Seller, its employees or agents or otherwise) which arise out of or in connection with the supply of the Goods or their use or resale by the Buyer, except as expressly provided in these Conditions.

8.8 The liability accepted by the Seller under Clause 6.5 above and under this Clause 8 is the absolute limit of the Seller's liability and all other liabilities are hereby expressly excluded and in particular, but without prejudice to the generality of the foregoing, the Seller will not be liable to the Buyer for any consequential loss, damage, costs and expenses of any nature whatsoever incurred or suffered by the Buyer or by a third party including without limitation any economic or other loss of turnover profits, business or goodwill.

8.9 The Seller shall not be liable to the Buyer or be deemed to be in breach of the Contract by reason of any delay in performing, or any failure to perform, any of the Seller's obligations in relation to the Goods, if the delay or failure was due to any cause beyond the Seller's reasonable control.

8.10 The Buyer is reminded of the limitation of the Seller's liability contained in clause 6.5 above.

**9. INSOLVENCY OF BUYER**

9.1 This clause applies if:

9.1.1 The Buyer makes any voluntary arrangements with its creditors or seeks the protection of the Court or (being an individual or firm) becomes bankrupt or (being a company) goes into liquidation (otherwise than for the purposes of amalgamation or reconstruction); or

9.1.2 An embargement takes possession, or a receiver is appointed, of any of the property or assets of the Buyer; or

9.1.3 The Buyer ceases, or threatens to cease, to carry on business; or

9.1.4 The Seller reasonably apprehends that any of the events mentioned above is about to occur in relation to the Buyer and notifies the Buyer accordingly.

9.2 If this clause applies then, without prejudice to any other right or remedy available to the Seller, the Seller shall be entitled to cancel the Contract or suspend any further deliveries under the Contract without any liability to the Buyer, and if the Goods have been delivered but not paid for, the price, and any other sums due by the Buyer to the Seller shall become immediately due and payable notwithstanding any previous agreement or arrangement to the contrary.

**10. EXPORT TERMS**

10.1 In these conditions "Incoterms" means the international rules for the interpretation of trade terms of the International Chamber of Commerce as in force at the date when the Contract is made. Unless the Contract otherwise requires, any term or expression which is defined in or given a particular meaning by the provisions of Incoterms shall have the same meaning in these Conditions, but if there is any conflict between the provision of Incoterms and these Conditions, the latter shall prevail.

10.2 Where the Goods are supplied for export from Ireland the provisions of this clause 10 shall (subject to any special terms agreed in writing between the Buyer and the Seller) apply notwithstanding any other provision of these Conditions.

10.3 The Buyer shall be responsible for obtaining any required permits or licences and for complying with any legislation or regulations governing the importation of the Goods into the country of destination and for the payment of any duties, charges, licence fees, costs and charges thereon.

10.4 Unless otherwise agreed in Writing between the Buyer and the Seller, the Goods shall be delivered F.O.B. by the Seller to the air or sea port of shipment and the Seller shall be under no obligation to give notice under Section 32(3) of the Sale of Goods Act 1893.

10.5 The Buyer shall be responsible for arranging for testing and inspection of the Goods at the Seller's premises before shipment. The Seller shall have no liability for any claim in respect of any defect in the Goods which would be apparent on inspection and which is made after shipment, or in respect of any damage during transit.

10.6 Payment of all amounts due to the Seller shall be made by irrevocable letter of credit opened by the Buyer in favour of the Seller and confirmed by a bank acceptable to the Seller or, if the Seller has agreed in Writing on or before acceptance of the Buyer's order to waive this requirement, by acceptance by the Buyer and delivery to the Seller of a bill of exchange drawn on the Buyer payable 30 days after sight to the order of the Seller at such bank in Ireland as may be specified in the bill of exchange.

**11. GENERAL**

11.1 If the Seller is a member of a group of companies with a holding company, the Seller may perform any of its obligations or exercise any of its rights hereunder by itself or through any other member of its group, provided that any act or omission of any such other member shall be deemed to be the act of omission of the Seller.

11.2 Any notice required or permitted to be given by either party to the other under these Conditions shall be in Writing addressed to that other party at its registered office or principal place of business or such other address as may be at the relevant time have been notified pursuant to this provision to the party giving notice.

11.3 No waiver by the Seller of any breach of Contract by the Buyer shall be considered as a waiver of any subsequent breach of the same or any other provision.

11.4 If any provision of these Conditions is held by any competent authority to be invalid or unenforceable in whole or in part the validity of the other provisions of these Conditions and the remainder of the provision in question shall not be affected thereby.

11.5 Any dispute arising under or in connection with these Conditions or the sale of the Goods shall be referred to arbitration by a single arbitrator appointed by agreement or (in default) nominated on the application of either party by the President for the time being of the Incorporated Law Society of Ireland and the Arbitration Acts 1954 to 1980 shall apply.

11.6 The Contract shall be governed by the laws of the Republic of Ireland and the Buyer hereby submits to the jurisdiction of the Irish Courts.

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