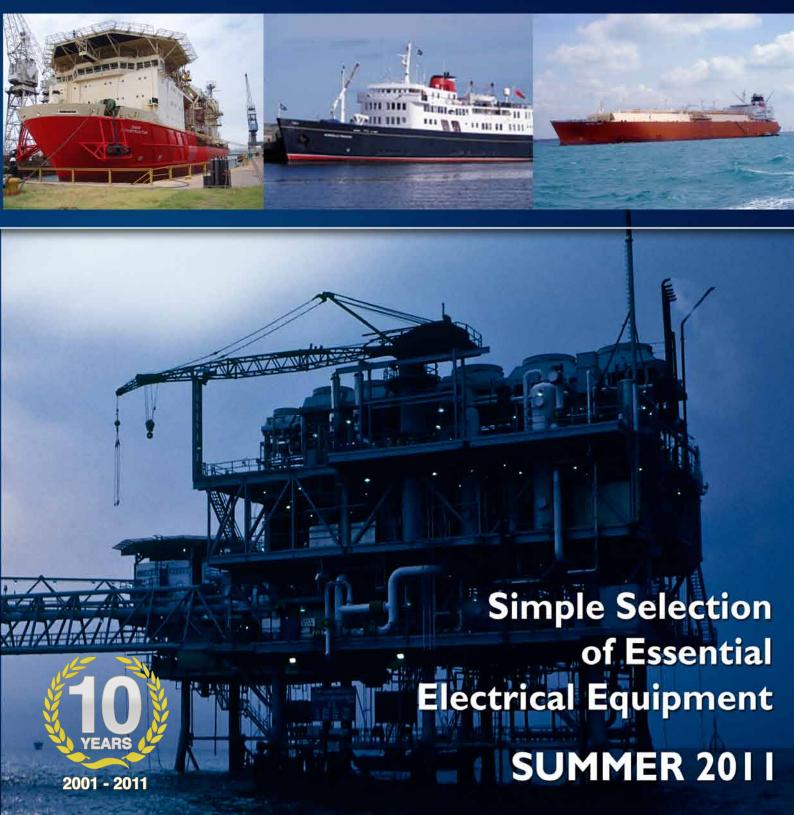


# Marine and Offshore Electrical Services

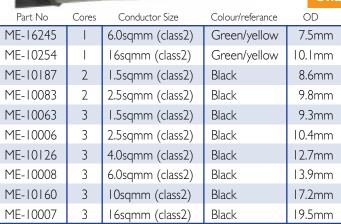






**Flame** Retardant Unarmoured

#### 657TQ shipwiring cable to BS6883



Conductors: Tinned annealed stranded copper Insulation: EPR (Ethylene Propylene Rubber)

Conductor indentification: White cores with black numbers

Sheath/Jacket: Low Smoke Zero Halogen (ZHAL),

**Type:** SW4 **Voltage:** 600/1000v

Operating temperature: Maximum 85°C, minimum bending -25°C

Standards:

BS6883: Shipboard cable,

Application: Fixed wiring in ships and on mobile and fixed offshore units



**Fire** Resistant **Unarmoured**  657MG-TQ shipwiring cable to BS6883, BS7917, IEC60332 and IEC60331



OD ME-10084 10.1mm 2 1.5sqmm (class2) Black 10.9mm ME-10112 2 2.5sqmm (class2) Black ME-10100 3 10.8mm 1.5sqmm (class2) Black ME-10315 3 11.6mm 2.5sqmm (class2) Black ME-10015 3 6.0sqmm (class2) Black 14.7mm ME-10017 3 10sqmm (class2) Black 16.7mm

Conductors: Tinned annealed stranded copper

Insulation: MGT (Mica Glass Tape) with EPR (Ethylene Propylene Rubber), white insulation with black numbers Sheath/Jacket: Low Smoke Zero Halogen (ZHAL),

Type: SW4 Colour: Black Voltage: 600/1000v

Operating temperature: Maximum 85°C, minimum bending -25°C

BS7917: fire resistant shipboard cable, IEC60332-3-22: flame retardancy, IEC60754-1 and 2: corrosivity, IEC61034-2: smoke density, NEK 606: oil & mud resistancy Application: for fixed installations in all areas and on open deck in ships and offshore units



16sqmm (class2)

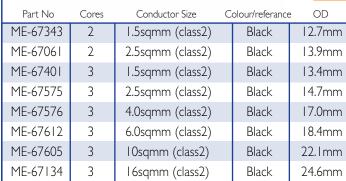
ME-10021

**Flame** Retardant Armoured

19.2mm

Black

#### 658TQ shipwiring cable to BS6883



Conductors: Tinned annealed stranded copper Insulation: EPR (Ethylene Propylene Rubber)

Conductor indentification: White cores with black numbers

Armour: GSWB (Galvanized steel wire braid) Sheath/Jacket: Low Smoke Zero Halogen (ZHAL), Type: SW4 Colour: Black Voltage: 600/1000v

Operating temperature: Maximum 85°C, minimum bending -25°C

BS6883: Shipboard cable BSEN60228:2005 (previously BS6360): Specification for electrical conductors in insulated cable, BS7655-1.2 & BS7655-2.6: specifications for cable insulation Application: For fixed installations in all areas and on open deck in ships and offshore units



Resistant Armoured

#### 658MGTQ shipwiring cable to BS7917 and BS6883

Part No Conductor Size Colour/referance OD ME-67629 1.5sgmm Black 14.6mm ME-67146 2 2.5sqmm Black 15.4mm ME-67400 3 1.5sgmm Black 15.2mm ME-67625 3 2.5sqmm Black 16.3mm ME-67626 3 4.0sqmm Black UKOOA YD304 18.5mm ME-67632 3 6.0sgmm Black UKOOA YD306 19.6mm ME-67624 3 Black UKOOAYD310 22.1mm 10sqmm 3 Black UKOOA YD316 24.7mm ME-67053 16sqmm

Conductors: Tinned annealed stranded copper

Insulation: IMGT (Mica Glass Tape) with EPR (Ethylene Propylene

Rubber), white insulation with black numbers Armour: GSWB (Galvanized steel wire braid) Sheath/Jacket: Low Smoke Zero Halogen (ZHAL), Type: SW4 Voltage: 600/1000v Colour: Black

Operating temperature: Maximum 85°C, minimium bending -25°C

#### Standards:

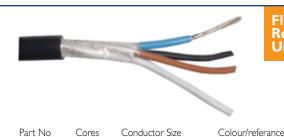
BS6883: shipboard cable, BS7917: fire resistant shipboard cable, IEC60332-3-22: flame retardancy, IEC60754-1 and 2: corrosivity, IEC61034-2: smoke density, NEK 606: oil & mud resistancy

Other types and sizes available on request

## **CABLES**







1.5sqmm (class2)

2.5sgmm (class2)

1.5sqmm (class2)

2.5sqmm (class2)

4.0sqmm (class2)

6.0sqmm (class2)

10sqmm (class2)

ME-14000

ME-14001

ME-14004

ME-14005

ME-14006

ME-14034

ME-14035

Part No

ME-14162

ME-14130

ME-14116

MF-14115

ME-14186

Part No

ME-14011

ME-14012

ME-14014

ME-14015

ME-14016

ME-14017

ME-14018

ME-14019

Cores

2

2

3

3

3

Cores

2

2

3

3

3

3

3

3

2

2

3

3

3

3

3

Retardant Unarmoured

OD

8.2mm

9.0mm

8.7mm

9.6mm

II.2mm

12.4mm

14.6mm

Black

Black

Black

Black

Black

Black

Black

Colour/referance

Black

Black

Black

Black

Black

Colour/referance

Black

Black

Black

Black

Black

Black

Black

Black

#### XI marine power and control shipwiring cable

Conductors: Plain flexible compacted stranded Copper

Insulation: XLPE (Crossed linked polyethylene)

Core identification: Single core black, 2 core black & Light blue, 3 core black, light blue & brown, 4 core black, light blue, brown & white, 5 core and above, white cores with black numbers. Earthing core (Green/Yellow)

available in request

Bedding: 'FLAME-BAR' (Halogen free)

Sheath/Jacket: LSZH (Low smoke, zero halogen)

Colour: Black Voltage: 600/1000v

Operating temperature: Maximum 100°C, minimium bending -40°C

Standards:

IEC60092-353: power cables for electrical installation in ships Ref: XI cable

Type approvals: ABS, DNV, Bureau Veritas, Germanischer Lloyd, Lloyds

Register, RINA, & Russian Maritime Register of Shipping

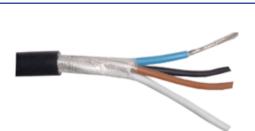








ABS



**Fire** Resistant Unarmoured

#### XI 331 fire resistant power shipwiring cable to IEC60092-353 and IEC60331

Conductor: Plain flexible compacted copper IEC60228 Class 2 Insulation: mica tape plus XLPE compound insulated

Bedding: halogen free FLAMEBAR ® bedding

Sheath: halogen free LSZH sheath

Design and Construction: IEC60092-353

Nominal Voltage Uo/U: 0,6/1 kV Maximum Votage Umax: 1,2 kV

Flame Retardancy: IEC 60332-1 IEC 60332-3 Cat A

Fire Resistancy: IEC 6033 | Corrosivity: IEC 60754-1 IEC 60754-2

Smoke Density: IEC 61034-2

Toxicity and Smoke Density: IMO RESOLUTION MSC 41 (64) and ATS

1000.001 tech. spec.

Cold bend and impact test (-40oC) CSA C22.2 No 38-95

Cores Identification: I core black, 2 core black & light blue

3 core black, brown & light blue, 4 core black, blue, brown & white, 5 core

white and numbered. Earthing core (on request) green/yellow

Sheath Colour: Black Ref: XI 33 I cable

Operating temperature: Maximum 100°C, minimium bending -40°C

Standards: IEC60092-353: power cables for electrical installation in ships Type approvals: ABS, Bureau Veritas, DNV, Lloyd's Register & Russian

Maritime Register of Shipping



Conductor Size

1.5sgmm

2.5sqmm

1.5sqmm

2.5sgmm

16sqmm

**Flame** Retardant Armoured

OD

9.0mm

10.0mm

9.5mm

10.6mm

18.7mm

OD

9.1 mm

10.0mm

9.6mm

10.5mm

12.1mm

13.3mm

15.9mm

18.7mm

#### XAI armoured power and control shipwiring cable to IEC60092-353



Conductor Size

1.5sqmm (class2)

2.5sqmm (class2)

1.5sqmm (class2)

2.5sqmm (class2)

4.0sqmm (class2)

6.0sqmm (class2)

10sqmm (class2)

16sqmm (class2)

Conductors: Plain flexible compacted stranded copper Insulation: XLPE (Crossed linked polyethylene)

Core identification: Single core black, 2 core black & Light blue, 3 core black, light blue & brown, 4 core black, light blue, brown & white, 5 core and above, white cores with black numbers. Earthing core (Green/Yellow) available in request

Bedding: 'FLAME-BAR' (Halogen free)

Screen: PCWB (Plain copper wire braid)

Sheath/Jacket: LSZH (Low smoke, zero halogen)

Colour: Black Voltage: 600/1000v

Operating temperature: Maximum 100°C, minimium bending -40°C

#### Standards:

IEC60092-353: power cables for electrical installation in ships,

IEC60228: electrical conductors of insulated cable,

IEC60332: flame retardancy, IEC60754: halogen free properties,

IEC61034: smoke density Ref: XAI cable

Type Approvals: ABS, Bureau Veritas, DNV, Germanischer Lloyd, Lloyd's Register, RINA & Russian Maritime Register of Shipping

Other types and sizes available on request

Colour/referance

Black

Black

Black

Black

Black

Black

Black

Black

Colour/referance

Black

Black

Black

Black

Black

Black

Black

Colour/referance

Black

Black

Black

Black

Black

Black

Black

Part No.

ME-14064

ME-14078

ME-14065

ME-14092

ME-14113

ME-14093

ME-14063

ME-14111

Part No

ME-67914

ME-67202

ME-67080

ME-67092

ME-67101

ME-67107

ME-67117

Part No

ME-67751

ME-67236

ME-67220

ME-67444

ME-67422

ME-67672

ME-67838



Cores

2

2

3

3

3

3

3

3

Cores

2

2

3

3

3

3

3



Conductor Size

1.5sqmm

2.5sgmm

1.5sgmm

2.5sqmm

4.0sgmm

6.0sgmm

10sqmm

16sqmm

Conductor Size

1.5sgmm (class2)

2.5sqmm (class2)

1.5sqmm (class2)

2.5sqmm (class2)

4.0sqmm (class2)

6.0sqmm (class2)

10sqmm (class2)

Conductor Size

2.5sqmm (class2)

1.5sqmm (class2)

2.5sqmm (class2)

4.0sqmm (class2)

6.0sqmm (class2)

10sqmm (class2)

16sgmm (class2)

#### Resistant Armoured

9.9mm

11.2mm

10.5mm

11.8mm

13.2mm

15.1mm

17.4mm

20.2mm

#### XAI 331 armoured fire resistant power shipwiring cable to IEC60092-353 and IEC60331

Conductor: plain flexible compacted copper IEC60228 Class 2 conductors

**Insulation:** mica tape plus XLPE based compound insulation **Armour:** plain copper wire braid **Sheath:** Halogen free LSZH sheath.

Design and Construction: IEC60092-353

Nominal Voltage Uo/U: 0,6/1 kV Maximum Votage Umax: 1,2 kV

Flame Retardancy: IEC 60332-1 IEC 60332-3 Cat A

Fire Resistancy: IEC 60331 Corrosivity: IEC 60754-1 IEC 60754-2

Smoke Density: IEC 61034-2

Toxicity and Smoke Density: IMO RESOLUTION MSC 41 (64) and ATS 1000.001 tech. spec. Cold bend and impact test (-40oC) CSA C22.2 No 38-95 Cores Identification: I core black, 2 core black & light blue 3 core black, brown & light blue, 4 core black, blue, brown & white, 5 core white and numbered Earthing core (on request) green/yellow Sheath Colour: Black

Type approvals: ABS, Bureau Veritas, DNV, Lloyd's Register & Russian

Maritime Register of Shipping





#### **Flame** Retardant Armoured

OD

14.4mm

15.5mm

15.0mm

16.1mm

17.8mm

19.1mm

21.1mm

23.6mm

16.5mm

16.1mm

17.2mm

19.0mm

20.7mm

22.6mm

25.5mm

#### RFOU instrumentation cable, mud resistant to NEK606

Conductors: Tinned annealed stranded copper

Core identification: Single core: off-white 2 core: off-white & black, 3 core: Configuration off-white, black & red. 4 core: off-white, black and 8 km. off-white, black & red, 4 core: off-white, black, red & blue. Insulation: Halogen free EPR (Ethylene Propylene Rubber),

**Screen:** TCWB (Tinned copper wire braid)

Sheath/Jacket: Type: SHF, thermoset dual compound, halogen free and

Sheath colours: Black Voltage: 600/1000v

Operating temperature: Maximum 85°C, minimium bending -40°C

IEC60092-353: electrical installation in ships, power cables, NEK606: cables for offshore installation halogen-free or mud-resistant, IEC60092.375 shipboard telecommunications cable, IEC60331: fire resistant, IEC60332: flame retardant, IEC61031-1.2: smoke denisty, IEC60754-1: halogen free properties, IEC60228: electical conductor **Applications:** Mud resistant cable for control, lighting and power systems

Type Approvals: ABS, DNV & Lloyd's Register of Shipping











**Fire** Resistant Armoured

#### BFOU power cable, mud resistant to NEK606

Conductors: Tinned annealed stranded copper

Core identification: Single core: off-white 2 core: off-white & black, 3 core: off-white, black & red, 4 core: off-white, black, red & blue. Insulation: MGT (Mica glass tape), halogen free EPR (Ethylene

Propylene Rubber),

Screen: TCWB (Tinned copper wire braid)

Sheath/Jacket: Type: SHF, thermoset dual compound, halogen free and

Sheath colours: Black & Grey Voltage: 600/1000v

Operating temperature: Maximum 85°C, minimium bending -40°C

#### Standards:

IEC60092-353: electrical installation in ships, power cables,

NEK606: cables for offshore installation halogen-free or mud-resistant,

IEC60092.375 shipboard telecommunications cable.

IEC60331: fire resistant.

IEC60332: flame retardant,

IEC61031-1.2: smoke denisty,

IEC60754-I, halogen free properties,

IEC60228: electical conductor

Applications: Mud resistant cables suitable for control, lighting and power systems

Type Approvals: ABS, DNV & Lloyd's Register of Shipping

Other types and sizes available on request

Cores

2

3

3

3

3

3

3

## MARINE ENGINE CABLES



#### 3753 FCF FEP control cable with overall copper screen and GL type approval

#### KSKES · D-VIERSEN · 37530715 7 x 1,5 mm² 04/10 C

#### Construction:

Conductor: tinned copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 5

Insulation:

Colour code: black cores with consecutive numbers acc. to EN 50334

Stranding: in layers Inner sheath: FEP

Screen: tinned copper braiding

Sheath material:

**Construction:** 

Conductor:

Colour code:

Sheath material:

Sheath colour:

ME-67530205

ME-67530207

ME-67530307

ME-67530507

ME-67530707

ME-67531207

ME-67531607

ME-67532007

ME-67530215

ME-67530315

ME-67530515

ME-67530715

ME-67530225

Insulation:

Stranding:

Wrapping:

Screen:

Part No

black (RAL 9005) Sheath colour:

Part No	no. of cores x cross section n x mm2	outer-ø ± 0,3 mm mm	copper figure kg/km	cable weight ≈ kg/km
ME-37530207	2 × 0,75	5,6	32, I	59
ME-37530307	3 × 0,75	5,8	39,3	68
ME-37530507	5 × 0,75	6,9	59,6	101
ME-37530707	7 × 0,75	7,5	74,2	124
ME-37531207	12 × 0,75	10,0	134,3	209
ME-37531607	16 × 0,75	11,2	169,8	269
ME-37530215	2 × 1,50	6,4	48,6	84
ME-37530315	3 × 1,50	6,7	64,6	97
ME-37530515	5 × 1,50	8,0	98,2	146
ME-37530715	7 × 1,50	8,8	129,9	185

#### Technical data:

Nominal voltage: Uo/U 300/500 V 2000 V (AC) Testing voltage: Min. bending radius fixed laying:

 $5 \times d$  $7,5 \times d$ flexible application: Radiation resistance:  $1 \times 107$ cl/kg Temperature range:

fixed laying: flexible application:

- 55/+180 °C flame retardant and self-extinguishing Fire performance: acc. to IEC 60332-I-2 + EN 60332-I-2Oil

resistance: the outer sheath has a good oil and diesel resistance

-100/+180 °C

Absence of harmful substances:

acc. to RoHS-guideline 2002/95/EG as well as GefStoffV appendix IV-no. 24, see page N/14

#### **Outstanding features:**

- flame retardant
- oil resistant >
- good chemical resistant >
- GL approval





#### 6753 C FRNC halogen-free control cable with overall copper screen and DNV type approval

tinned copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 5

copper

kg/km

27,2

34,0

42.9

62,2

79,4

146.

212.

242.4

52.6

69,4

119.7

155.1

74,3

#### IEC 60032-376 150/250V (300V) IEC60332-3 A+C C 0

tinned copper braiding

black (RAL 9005)

black cores with consecutive numbers

outer-ø

 $\pm 0.3 \text{ mm}$ 

6,7

7,3

7.7

9.1

10,1

13.5

15.2

16.8

8.5

9,1

11.2

12.3

9.5

special A

in lavers

PETP foil

special A

no. of cores

x cross section

 $2 \times 0.50$ 

 $2 \times 0.75$ 

 $3 \times 0.75$ 

 $5 \times 0.75$ 

 $7 \times 0.75$ 

 $12 \times 0.75$ 

 $16 \times 0.75$ 

 $20 \times 0.75$ 

 $2 \times 1.50$ 

 $3 \times 1.50$ 

 $5 \times 1.50$ 

 $7 \times 1.50$ 

 $2 \times 2,50$ 



cable

weight ≈ kg/km

60

70

83

122

154

262

357

429

103

119

204

256

134

(300V) IEC60332-3 A+C C Technical data:

6xd

 $2 \times 108$ cJ/kg

Nominal voltage: Testing voltage U:

Uo/U 150/250 V conductor/conductor 3500 V (AC) 1500 V (AC) conductor/screen

Marking for S6753 C FRNC 67532015:300V SAB BRÖCKSKES  $\cdot$  D-VIERSEN  $\cdot$ 67532015 90°C 20 x 1,5 mm2SABIX 6753 C FRNC IEC 60092-376 150/250V

Min. bending radius fixed laying:

during the installation: 9 x d Radiation resistance: Temperature range fixed laying:

flexible application: Halogen-free: Fire performance:

-40/+110 °C -30/+110 °C

acc. to DIN VDE 0472 part 815 and IEC 60754-1 no flame propagation acc. to IEC 60332

+ EN 50266 cat, C resp. D.

Flame retardant and self-extinguishing acc. to IEC 60332-I-2 + EN 60332-I-2

in compliance with IEC 60754-2 Corrosiveness of conflagration gases:

and EN 50267-2-2 + VDE 0482 part 267-2-2 no development of corrosive conflagration gases acc. to IEC 61034 + EN 61034Absence of acc. to RoHS-guideline 2002/95/EG as well as GefStoffV appendix IV-no. 24, see page N/14

harmful substances:

Smoke density:

#### **Outstanding features:**

- flame retardant
- halogen-free
- DNV approval





Other types and sizes available on request

## **CABLETIES & MISCELLANEOUS**

#### **Black Standard Nylon Cable Ties**

- Internal serrations for positive locking
- Head design guarantees high tensile strength and low insertion force
- UL Approved Nylon 66, 94V-2

-							•
Part No	Size (mm)	Pack Qty	Price	Part No	Size (mm)	Pack Qty	y Price
ME-AM16	160 × 2.5	100	£1.36	ME-AH30	300 × 7.6	100	£8.46
ME-AM20	200 × 2.5	100	£1.60	ME-AH37	$370 \times 7.6$	100	£9.14
ME-AN30	300 × 4.8	100	£2.96	ME-AE43	430 × 9.0	100	£13.92
ME-AN37	370 × 4.8	100	£3.86	ME-AE53	530 × 9.0	100	£16.88

#### 316 Stainless Steel Cable Ties

- High quality stainless cable tie developed for highly corrosive applications
- Roller ball 316 grade Cable Ties can be used in applications of extreme temperarature and hostile environments



Part No	Size (mm)	Pack Qty	Price
ME-A4STN30	300 x 4.5mm	100	£22.80
ME-A4STN37	370 x 4.5mm	100	£35.33
ME-A4STH30	300 × 7.9mm	100	£38.40
ME-A4STH37	370 x 7.9mm	100	£42.02

# LFPC Protective Profiles For Stainless Steel Cable Ties

Recommended where the tightening is such that the cable insulation may be damaged by the tie

- Self-extinguishing
- LFPC zero halogen channel



Part No	Width (mm)	Thickness F (mm)	leel Lengt (M)	th Price
ME-LFPC70BK	7 (For Use With 4.5mm SS Ties)	1.1	25	£36.41
ME-LFPC103BK	10 (For Use With 7.9mm SS Ties)	1.1	25	£46.61

#### **Stainless Steel Cable Tie Tension Tool**

- Automatic Stainless Steel Cable Tie Tensioning and cutting tool
- Will tension and cut Stainless Steel Cable Ties up to 7.9mm width
- Adjustable tension indicator

Part No	Price Each	
ME-TGM5	£62.44	



#### Flexible Condit Pack

FPAS Black Nylon IP 66

Construction

Standard weight, flame retardant nylon (PA6) corrugated flexible conduit **Typical Applications:** All types of machinery

Containing 10mtrs conduit + 10 connectors

Part No	Outside Dia	Inside Dia	Price Per Pack
ME-CP21B	M20 21.2mm	16.7mm	£27.05
ME-CP25B	M25 25.0mm	19.1mm	£34.96

#### **Tri-Rated Panel Wiring**



Approval - CSA, UL B BS6231 Suppied in 100mtr Reels

Sincle core, flexible plain annealed copper wires, heat ressistant PVC insulation. Maximum working temperature 105°C.

Conductor			Conductor						
Part No C	Core	s Size	OD	Price	Part No C	Core	s Size	OD	Price
ME-TR0.5	1	0.5mm	2.7mm	£8.64	ME-TR4.0	1	4.0mm	4.4mm	£43.76
ME-TR0.75	1	0.75mm	2.9mm	£10.88	ME-TR6.0	1	6.0mm	5.1mm	£64.81
ME-TR1.0	1	1.0mm	3.1mm	£13.16	ME-TR10.0	1	10.0mm	6.0mm	£118.40
ME-TR1.5	1	1.5mm	3.4mm	£19.60	ME-TR16.0	1	16.0mm	9.2mm	£205.12
ME-TR2.5		2.5mm	3.8mm	£30.87					

COLOURS: Red, Black, Blue, Yellow, Earth, Grey, Green, White, Orange, Brown, Pink, Violet

#### **Electrical tape**

PVC flame retardant and waterproof electrical tape.



Part No	Description	Size	Price
ME-TP2-BLACK	Black PVC tape	19mm x33mtr	£0.98
ME-TP2-WHITE	White PVC tape	19mm x33mtr	£0.98
ME-TP2-GREY	Grey PVC tape	19mm x33mtr	£0.98
ME-TP2-BLUE	Blue PVC tape	19mm x33mtr	£0.98
ME-TP2-RED	Red PVC tape	19mm x33mtr	£0.98
ME-TP2-YELLOW	Yellow PVC tape	19mm x33mtr	£0.98
ME-TP2-BROWN	Brown PVC tape	19mm x33mtr	£0.98
ME-TP2-EARTH	Green/Yellow PVC tape	19mm x33mtr	£0.98

Self Amalgamating

A very useful derivative of insulating tape which can be used for waterproofing connections. To use, the top protective layer is peeled off and the rubbery self- amalgamating tape

underneath is wrapped tightly around the connection to be waterproofed

Part No Description Size Price

ME-TP8 Self Amalgamating tape 19mm x 10mtr £3.65

#### Flexible Conduit

**LTPSS** Stainless Steel PVC coated Liquid Type IP66 IP67 IP68 IP69



Construction: Stainless steel (316), helically wound, flexible conduit with oil resistant and high temperature pvc smooth cover. Colour black.

**Typical Applications:** Machinery or outdoor applications where high corrosion resistance and liquid tight are a requirement

Part No	Description	Size	Price
ME-LTPSS20B	Flexible Conduit (25 mtr)	M20	£174.00
ME-LTPSS25B	Flexible Conduit (25 mtr)	M25	£232.00
ME-LTP20-M20-EXD	Flameproof Barrier Gland (10 pk)	M20	£176.00
ME-LTP25-M25-EXD	Flameproof Barrier Gland (10 pk)	M25	£221.00

**LFHU** Galvanised steel LFH coated IP54 P65 **Construction**: Galvanised steel, helically wound, flexible steel conduit with Low Fire Hazard (LFH) coating. Colour black.



Typical Applications: Machinery or outdoor applications

Part No	Description	Size	Price
ME-LFHU20B	Flexible Conduit (25 mtr)	M20	£117.00
ME-LFHU25B	Flexible Conduit (25 mtr)	M25	£164.00
ME-FSU20-M20-C-S	Swivel Connector (10 pk)	M20	£51.00
ME-FSU25-M25-C-S	Swivel Connector (10 pk)	M25	£80.00



#### Roxtec S-frames, primed, mild steel

#### **Roxtec S-frames**

for use with RM components.



Part No	Frame type	Packing space (mm)	External dimensions (D=60mm) HxW (mm)	Price
ME-S2-I	S2 x I	60 × 120	121 × 141	£18.99
ME-S4-I	S4 x I	120 × 120	180 × 141	£20.72
ME-S6-I	S6 x I	180 × 120	238 × 141	£22.56

#### **Roxtec RM Modules**

Sealing Modules for use with Roxtec frames, removable layers for perfect adaptation to cable or pipe. When used with solid core, the module functions as a spare module for future capacity.



Part No	Module type	For Cable / pipe diameter Øa-Øb (mm)	External dim. (mm) HxW (D=60 mm)	Price
ME-RM15	RM 15	0+ 3.0-11.0	15 x 15	£3.05
ME-RM20	RM 20	0+ 4.0-14.5	20 × 20	£3.05
ME-RM30	RM 30	0+ 10.0-25.0	30 × 30	£4.59
ME-RM40	RM 40	0+ 21.5-34.5	40 × 40	£7.48
ME-RM60	RM 60	0+ 28.0-54.0	60 × 60	£18.55

#### **Roxtec Wedge**

The Roxtec wedge is used in frames with a rectangular packing space without bulit-in compression. Compresses & seals the installation of cables, pipes, modules and stayplates.



Part No	Wedge type	External dimension W (mm)	
ME-Wedge GV	Wedge 120 Galv	120	£45.56
ME-Wedge GV Kit	Wedge 120 Galv (Kit) *	120	£63.37
ME-Wedge SS	Wedge 120 Stainless Steel	120	£78.98
ME-Wedge SS Kit	Wedge 120 Stainless Steel (Kit)*	120	£120.98

<sup>\*</sup> The Wedge kit includes one Roxtec Wedge I 20, five Stayplates, one Wedge Clip, one Lubricant and installation instructions.

#### **Roxtec Stayplates**

Roxtec Stayplates are used for pull-out resistance against forces in cables and pipes. To be inserted between rows of modules in frames with a rectangular packing space and no built in compression.



Part No	Fr Stayplate Type	ts Packing Spa W (mm)	ace Price
ME-Plate GV	Stayplate 120 Galv	120	£3.36
ME-Plate SS	Stayplate 120 Stainless Steel	120	£7.92

#### Geaquello E 950 Sealing System

Geaquello E950 Sealing System consists of :

R 312 or 380 Swell Modules E 824 Impregnation Fluid E 950 Sealing Compound Geaquello E950 is a sealing system for making removable, fire-retardant, gas and watertight cable ducts for ships and offshore applications

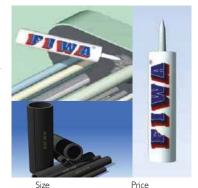


Part No	Description	Size	Price
ME-4145486	Geaquello Compound E950	3Kg	£45.83
ME-4145524	Geaquello Compound E950	15Kg	£174.59
ME-4145152	Impregnation Fluid	l Kg	£10.21
ME-4145286	Impregnation Fluid	10Kg	£71.50
ME-4148142	Swell Modules Sticks (25 Sticks)	800 × 25 × 6mm	£156.00
ME-4148143	Swell Modules (360 Sticks)	120 × 25 × 6mm	£434.33

#### **RISE Materials**

#### Multi-Cable Transit Sealing System

FIWA is absolutely Hallogen free, furthermore FIWA has a low smoke index and a high oxygen index with low flame spread characteristics.



Part No	Description	Size		Prio	ce
ME-80.0900	Sealent	300ml cartri	dge	£29.16	each
Part No	Cable Sleeve Ca	ble Diameter (mm)	Sleeve	Length (mm)	Price
ME-80.0200	12/6	5 - 7		210	£1.84
ME-80.0201	14/8	7 - 9		210	£2.19
ME-80.0202	16/10	9-11		210	£2.47
ME-80.0203	18/12	11-13		210	£2.96
ME-80.0204	20/14	13-15		210	£3.35
ME-80.0205	22/16	15-17		210	£3.75
ME-80.0206	27/19	17-21		210	£5.15
ME-80.0207	31/23	21-25		210	£7.11
ME-80.0208	35/27	25-29		210	£8.16
ME-80.0209	39/31	29-33		210	£9.08
ME-80.0210	46/36	33-39		210	£13.18
ME-80.0211	52/42	39-45		210	£15.26
ME-80.0212	58/48	45-51		210	£17.22
ME-80.0213	64/54	51-57		210	£19.09
ME-80.0214	70/60	57-63		210	£24.15
			6.00	105 1	

Note: Maximum continuous service temperature of RISE sleeves not to exceed 70°. For higher operating temperatures please contact us.

## **GLANDS & HEATSHRINK**

#### **Polyamide Dometop Cable Glands**

#### Metric POLYAMIDE PA6.6 Dometop Cable Glands & Lockring

Self-extinguishing class V2 (UL94) Temperature Range -20°C to +90°C

Protection: IP 68

Available in Light Grey, Dark Grey & Black

#### Add to Part No. LG for Light Grey, G for Dark Grey, N for black Sold in packs of 10

Part No.	Gland Size (P)	Fixing Hole $\varnothing$ (mm)	ØA (mm) Min-Max	B (mm)	Thread Length C (MM)	L Min-Max (mm)	Price Per Pack
ME-1900.M16	M16 x 1.5	16.5	5 - 10	19	8	22 - 27	£2.80
ME-1900.M20	M20 × 1.5	20.5	7 - 13	25	9	24 - 30	£3.50
ME-1900.M25	M25 × 1.5	25.5	10 - 17	30	10	28 - 39	£5.40
ME-1900.M32	M32 x 1.5	32.5	13 - 21	36	10	33 - 44	£9.10
ME-1900.M40	M40 × 1.5	44.5	19 - 28	46	10	36 - 45	£15.30

#### **MCT MSR Glands**

The MSR Gland is designed to seal upto 8 cables between 4 & 16mm diameter. Simply remove the centre core and minimize the number of rings to enable cables to pass through. When all cables



are inserted into the gland simply tighten the four Hex Screws equally. Once completed the seal will provide an effective barrier against fire, water & dust.

#### Lloyds Certified to A60 Approval

Part No	Description I	Hole size rqd dia. (mm)		Max cable dia. (mm)		
ME-MSR25-I	MSR 25 Type I	25	4	12	-	£31.88
ME-MSR40-1	MSR 40 Type I	40	П	24	I	£37.80
ME-MSR40-2	MSR 40 Type 2	40	6	15	2	£34.60
ME-MSR40-3	MSR 40 Type 3	40	6	12	4	£43.78
ME-MSR50-1	MSR 50 Type I	51	5	10	5	£59.74
ME-MSR50-2	MSR 50 Type 2	51	4	16	3	£59.07
ME-MSR63-1	MSR 63 Type I	64	4	16	4	£59.43
ME-MSR63-2	MSR 63 Type 2	64	5	10	8	£58.10

#### Adhesive Heatshrink End Cap

Heatshrink adhesive lined end caps are used to seal the ends of plastic, rubber and paper insulated cables, from moisture, dirt and corrosion

Shrink Ratio:2.5:1 Material:Polyolefin



Part No	colour	range (mm)	Price
ME-CB09652	Black	8.0-4.0	£0.78
ME-CB09653	Black	17.0-8.0	£1.05
ME-CB09654	Black	30.0-17.0	£1.78
ME-CB09655	Black	45.0-30.0	£2.69

#### **Heatshrink Sleeving Kit**

Shrink Ratio KIT 3:1 Colour:Black / Blue / Red / White / Yellow Accessory Type:Sleeving Dielectric Strength: I 5kV/mm Operating Temperature Max:110°C Operating Temperature Min:-55°C Contains 180 heatshrinks



ØA\_

Part No	Description	Price	
ME-CB10468	Heatshrink sleeving kit	£31.57	

#### **Adhesive Lined Heatshrink**



Shrink Ratio:4: I Material:Polyolefin Operating Temperature Max:125°C Operating Temperature Min:-55°C

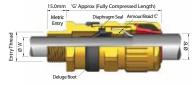
Part No	Colour	Range (mm)	Length (m)	Price
ME-HS403	Black	12.0 - 3.0	1.2	£4.58
ME-HS404	Black	16.0 - 4.0	1.2	£6.00
ME-HS405	Black	20.0 - 5.0	1.2	£7.18
ME-HS406	Black	24.0 - 6.0	1.2	£9.35
ME-HS407	Black	32.0 - 8.0	1.2	£15.14
ME-HS408	Black	52.0 - 13.0	1.2	£24.55



#### Hazardous Area 501/453/UNIVERSAL

#### **Application**

Outdoor or indoor use. For use with single wire armour 'W', wire braid 'X', steel tape elastomer and plastic insulated cables. For particular use with



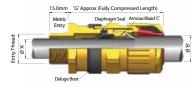
Cables that exhibit 'Cold Flow' characteristics. See technical section for installation rules and regulations.

Part No	Metric	Inner 9 Min,	Sheath 'A'Max.	Outer 9 Min,	Sheath 'B Max.	Price
ME-501/453/Univ/M20 Os	M20	3.5	8.1	5.5	12.0	£11.21
ME-501/453/Univ/M20 O	M20	6.5	11.4	9.5	16.0	£11.21
ME-501/453/Univ/M20 A	M20	8.4	14.3	12.5	20.5	£13.20
ME-501/453/Univ/M25 B	M25	11.1	19.7	16.9	26.0	£19.97
ME-501/453/Univ/M32 C	M32	17.6	26.5	22.0	33.0	£29.80

#### Industrial Area 153/UNIVERSAL

#### **Application**

Outdoor or indoor use. For use with single wire armour 'W', wire braid 'X', aluminium strip armour 'Y', and steel tape armour 'Z' elastomer



and plastic insulated cables. For particular use with:- Cables that exhibit 'Cold Flow' characteristics.

Part No	Metric	Inner Min.	Sheath 'A'Max.	Outer SI Min.	heath 'B Max.	Price
ME-153/Univ/M20 Os	M20	3.5	8.1	5.5	12.0	£8.81
ME-153/Univ/M20 O	M20	6.5	11.4	9.5	16.0	£8.81
ME-153/Univ/M20 A	M20	8.4	14.3	12.5	20.5	£10.39
ME-153/Univ/M25 B	M25	11.1	19.7	16.9	26.0	£15.71
ME-153/Univ/M32 C	M32	17.6	26.5	22.0	33.0	£23.45

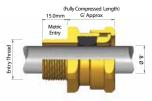
#### Accessories

All dimensions in millimetres (except \* where dimensions are in inches)

#### Hazardous Area 501/421

#### **Application**

The 501/421 cable gland provides a seal on the outer cable sheath and is intended for use on non-armoured elastomer and plastic insulated cables. The cable is dual certified Exd and Exe and is suitable for installation in Zone I (21) and Zone 2 (22) hazardous areas.

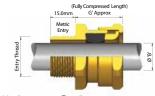


Part No	Entry Thread Size Metric		able Accep Outer S rd Seal Max.	heath 'B'		Price.
ME-501/421/M16 K	MI6	3.0	8.0	-	-	£4.55
ME-501/421/M20 Os	M20	3.0	8.0	-	-	£4.55
ME-501/421/M20 O	M20	7.5	11.9	-	-	£4.55
ME-501/421/M20 A	M20	11.0	14.3	8.5	13.5	£5.42
ME-501/421/M25 B	M25	13.0	20.2	9.5	15.4	£8.67
ME-501/421/M32 C	M32	19.0	26.5	15.5	21.2	£15.78

#### Industrial Area 121

#### **Application**

Outdoor or indoor use. For use with non-armoured elastomer and plastic insulated cables.



Part No	Entry Thread Size Metric		able Accep Outer S ard Seal	heath 'B'		
		Min.	Max.	Min.	Maxì ´	Price.
ME-121/M16 K	MI6	3.0	8.0	-	-	£3.86
ME-121/M20 Os	M20	3.0	8.0	-	-	£3.86
ME-121/M20 O	M20	7.5	11.9	-	-	£3.86
ME-121/M20 A	M20	11.0	14.3	8.5	13.5	£4.61
ME-121/M25 B	M25	13.0	20.2	9.5	15.4	£7.38
ME-121/M32 C	M32	19.0	26.5	15.5	21.2	£11.05

#### Fibre Washer



**Application** For use on cable gland entry threads.

**Features** To maintain ingress protection rating at the enclosure. Retaining 'Pips' make washer captive on metric cable gland entry thread.

Part No	Metric Gland Size 'V'	Price
ME-Wash/F/M20S	M20	£0.20
ME-Wash/F/M20	M20	£0.20
ME-Wash/F/M25	M25	£0.26
ME-Wash/F/M32	M32	£0.33

#### Serrated Washer

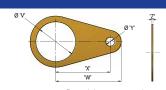


**Application** For use on cable gland entry threads.

**Features** To dampen vibrations of the cable gland / equipment assembly which may loosen the cable gland or locknut. Manufactured in Stainless Steel (standard).

Part No	Metric Gland Size 'V'	Price
ME-Wash/Serr/Galv/M20S	M20	£0.64
ME-Wash/Serr/Galv/M20	M20	£1.16
ME-Wash/Serr/Galv/M25	M25	£1.65
ME-Wash/Serr/Galv/M32	M32	£2.89

#### Earth Tags

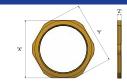


**Application** Provides an earth bond attachment for a cable gland.

**Features** Manufactured in Brass (standard). Stainless Steel earthtags are available, but dimensions may differ slightly to those stated below.

Part No	Metric Gland Size 'V		'W'	'X'	'Z'	Price
ME-Etag/M20						
ME-Etag/M25	M25	6.85	45.5	36.5	1.6	£0.36
ME-Etag/M32	M32	12.6	52.0	40.9	1.6	£0.55

#### **Brass Locknut**



**Application** Secures a cable gland in position at the equipment.

**Features** Heavy duty locknuts manufactured in Brass (standard). Stainless Steel locknuts are available, but dimensions differ slightly to those stated below.

Part No	Metric Gland Size	Metric Across Flats 'X'	x 1,5mm Across Corners 'Y'	Pitch 'Z'	Price
ME-Lnut/M16	MI6	19.0	21.9	3.2	£0.40
ME-Lnut/M20	M20	24.0	26.9	4.0	£0.40
ME-Lnut/M25	M25	30.0	33.6	4.0	£0.46
ME-Lnut/M32	M32	46.0	53.1	4.0	£0.86



#### **Crimp Insulated Red Ring**

High quality, pre-insulated copper crimp terminals. EN 60352-2, 1:2003. Use with ratchet crimping tool. Product contents Bag of 100

Specifications Cable size: 0.5-1.5mm<sup>2</sup>. Imax - 19A

Part No	Hole size	Price Per Bag
ME-CN-11349	3.2mm	£1.86
ME-CN-11350	3.7mm	£1.99
ME-CN-11351	4mm	£2.11
ME-CN-11352	5mm	£2.24
ME-CN-11353	6mm	£2.99
ME-CN-11354	8mm	£3.24
ME-CN-11355	10mm	£3.61



#### **Crimp Insulated Blue Ring**

High quality, pre-insulated copper crimp terminals EN 60352-2, 1:2003. Use with ratchet crimping tool. Product contents Bag of 100

Specifications Cable size: 1.5-2.5mm<sup>2</sup>. Imax - 27A

Part No	Hole size	Price Per Bag
ME-CN-11356	3.2mm	£2,11
ME-CN-11357	3.7mm	£2.24
ME-CN-11358	4mm	£2.24
ME-CN-11359	5mm	£2.36
ME-CN-11360	6mm	£3.24
ME-CN-11361	8mm	£3.24
ME-CN-11362	10mm	£3.61



## Crimp Insulated Yellow Ring

High quality, pre-insulated copper crimp terminals. EN 60352-2, 1:2003. Use with ratchet crimping tool. Product contents Bag of 100

Specifications Cable size: 4.0-6.0mm<sup>2</sup>, Imax - 48A

Part No	Hole size	Price Per Pag
ME-CN-11365	3.7mm	£3.61
ME-CN-11366	4mm	£3.86
ME-CN-11367	6mm	£6.24
ME-CN-11368	8mm	£6.24



## **Crimp Insulated Butt Splice**

High quality, pre-insulated copper crimp terminals. EN 60352-2, 1:2003.

Use with ratchet crimping tool.

Product contents Bag of 100

Part No	Crimp size	Price
ME-CN-11406	1.5mm Red	£2.74
ME-CN-11407	2.5mm Blue	£3.11
ME-CN-11408	6.0mm Yellow	£4.99



#### **Copper Tube Crimp Terminals**

Part No	Cable size	Hole size	Price Per Pack
ME-CT6-6	6mm	6mm	£1.05
ME-CT6-8	6mm	8mm	£1.13
ME-CT10-5	10mm	5mm	£1.33
ME-CT10-6	10mm	6mm	£1.33
ME-CT10-8	10mm	8mm	£1.33
ME-CT10-10	10mm	10mm	£1.54
ME-CT10-12	10mm	12mm	£1.78
ME-CT16-6	16mm	6mm	£1.48
ME-CT16-8	16mm	8mm	£1.48
ME-CT16-10	16mm	10mm	£1.93
ME-CT16-12	16mm	12mm	£2.08
ME-CT25-6	25mm	6mm	£2.21
ME-CT25-8	25mm	8mm	£2.21
ME-CT25-10	25mm	10mm	£2.21
ME-CT25-12	25mm	12mm	£2.21
ME-CT35-6	35mm	6mm	£3.19
ME-CT35-8	35mm	8mm	£3.19
ME-CT35-10	35mm	10mm	£3.34
ME-CT35-12	35mm	12mm	£3.34
ME-CT50-6	50mm	6mm	£4.08
ME-CT50-8	50mm	8mm	£4.08
ME-CT50-10	50mm	10mm	£4.36
ME-CT50-12	50mm	12mm	£4.36
ME-CT70-8	70mm	8mm	£6.29
ME-CT70-10	70mm	10mm	£6.59
ME-CT70-12	70mm	12mm	£6.59
ME-CT70-14	70mm	14mm	£6.59



High quality, non-insulated copper crimp terminals. Use with ratchet crimping tool.

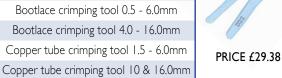
Product contents Pack of 10

Specifications Cable size: As selected

#### **Ratchet Crimping Tool**

Automatic release for perfect crimp everytime. Product contents: I x Crimping tool.

Part No Description ME-TCRI Pre Ins. Teminals 0.5 - 6.0mm ME-TCR2 Bootlace crimping tool 0.5 - 6.0mm ME-TCR3 Bootlace crimping tool 4.0 - 16.0mm ME-TCR5 Copper tube crimping tool 1.5 - 6.0mm



#### **Bootlace Ferrules**

ME-TCR6

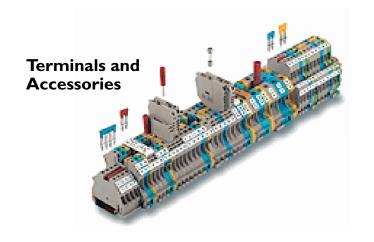
High quality, cord end bootlace ferrules. Use with ratchet crimping tool. Product contents I 00 x bootlace ferules

Part No	Cable size	Colour	Price
ME-CE05	0.5mm	White	£1.33
ME-CE075	0.75mm	Blue	£1.33
ME-CEI0	1.0mm	Red	£1.33
ME-CE15	1.5mm	Black	£1.33
ME-CE25	2.5mm	Grey	£1.56
ME-CE40	4.0mm	Orange	£2.49
ME-CE60	6.0mm	Green	£4.00



## JUNCTION BOXES & TERMINALS





## Weidmuller W Series Din Rail Components



Part No	Description	Price Each
ME-WDU2.5	2.5mm Feed Through Terminal	£0.38
ME-WDU4	4.0mm Feed Through Terminal	£0.42
ME-WDU6	6.0mm Feed Through Terminal	£0.55
ME-WDU10	10.0mm Feed Through Terminal	£0.66
ME-WDU16	16.0mm Feed Through Terminal	£0.96



Part No ME-WPE2,5		Description	Price Each
		2.5mm Feed Through Earth Terminal	£1.52
	ME-WPE4	4.0mm Feed Through Earth Terminal	£1.56
	ME-WPE6	6.0mm Feed Through Earth Terminal	£1.63
	ME-WPE10	10.0mm Feed Through Earth Terminal	£1.78
	ME-WPE16	16.0mm Feed Through Earth Terminal	£2.44



Part No	Description F	rice Each
ME-WSI6	Fuse terminal for 20mm x 5mm 6.3Amp Max Fuses	£1.85
ME-WSI25/I	Single Fuse terminal for 38mm x 10mm 32Amp Max Fuses	£4.45
ME-WSI25/2	Double Fuse terminal for 38mm x 10mm 32Amp Max Fuses	£8.90
ME-WSI25/3	Triple Pole Fuse terminal for 38mm x 10mm 32Amp Max Fuses	£13.33

# Part No Description Price Each ME-WAP2.5 Terminal End Cap £0.18 ME-ZEW End Bracket £2.75 ME-TS35 Din Rail 35mm Solid Top Hat 2mtr Length £2.75 ME-TS35SL Din Rail 35mm Slotted Top Hat 2mtr Length £2.90

#### **Polycarbonate Juction Boxes**

Abox Junction Box - IP65





Part No	Colour	Width	Height	Depth	Price Each		
ME-490902	Grey	80mm	80mm	52mm	£5.24		
ME-491902	Black	80mm	80mm	52mm	£5.27		
ME-490904	Grey	93mm	93mm	55mm	£7.34		
ME-491904	Black	93mm	93mm	55mm	£7.39		
ME-490906	Grey	110mm	I I Omm	67mm	£8.57		
ME-491906	Black	I I Omm	I I Omm	67mm	£8.63		
ME-490910	Grey	140mm	140mm	79mm	£11.46		
ME-491910	Black	I 40mm	140mm	79mm	£11.59		
ME-490916	Grey	180mm	180mm	91mm	£18.37		
ME-491916	Black	180mm	180mm	91mm	£21.50		

## **Glass Reinforced Polyester Junction Boxes**

Each enclosure comes pre-drilled with four M20 tapped cable entries and is supplied with EEx'e' certified blanking plugs. The BPGA range of enclosures are also ATEX certified EEx'e' and are suitable for use in Category 2/Zone I and Category 3/ Zone 2 areas according to EN 60079-14 with a working ambient temperature of between -20°C and +40°C (-4°F to 104°F).





	Available Sizes (mm)				
	Width	Height	Depth	Price Each	
ME-BPGA120	122	90	120	£36.85	
ME-BPGA125	122	90	125	£35.76	
ME-BPGA160	160	90	160	£58.68	



## **CONTACTORS & RELAYS**

#### **Telemecanique Contactors**

LCI series 3 Pole AC Contactor is suitable for use in circuits of rated voltage to 660V AC 50HZ or 60HZ, rated current up to 95A, for making & breaking, frequently starting & controlling the AC motor. Combined with the auxiliary contact block, time delay & machine- interlocking contactor, star-delta starter. With the thermal relay, it is combined into the electromagnetic starter. Auxillary contact configuration one N/O, one N/C. The Contactor is produced according to IEC 60947-4.



Add Coil Voltage to part number

B7 - 24VAC	M7 - 220VAC
E7 - 48VAC	P7 - 230 VAC
F7 - 110VAC	V7 - 400 VAC
	N7 - 415 VAC

Part No	Rated current AC3 Ue ≤ 440V (A)	Switching Power (Kw)	Height (mm)	Width (mm)	Depth (mm)	Price Each
ME-LC1-D09	9	4	77	45	86	£22.55
ME-LC1-D12	12	5.5	77	45	86	£26.92
ME-LCI-D18	18	9	77	45	86	£33.32
ME-LC1-D25	25	П	85	45	92	£46.37
ME-LC1-D32	32	15	85	45	92	£68.77
ME-LC1-D38	38	18.5	85	45	92	£76.67
ME-LC1-D40	40	22	127	75	119	£82.75
ME-LC1-D50	50	25	127	75	119	£106.09
ME-LC1-D65	65	37	127	75	119	£143.22

# Telemecanique 3 Pole Thermal Overload Relays

Three pole thermal overload relays designed to protect ac circuits against overloads, phase failure, long starting times and prolonged stalling of the motor. Auxillary contact configuration IN/O & IN/C.

Relay cetting



Part No.	Relay setting range (A) F (A)	uses to be Am (A)	used with se Gg (A)	lected relay BS88 (A)	For use with Contactor LC1	Price Each
ME-LRD 01	0.10 - 0.16	0.25	2	-	D09D38	£23.86
ME-LRD 02	0.16 - 0.25	0.5	2	-	D09D38	£23.86
ME-LRD 03	0.25 - 0.40	1	2	-	D09D38	£25.32
ME-LRD 04	0.40 - 0.63	1	2	-	D09D38	£25.32
ME-LRD 05	0.63 - 1	2	4		D09D38	£25.32
ME-LRD 06	l - l.6	2	4	6	D09D38	£25.32
ME-LRD 07	1.6 - 2.5	4	6	10	D09D38	£25.32
ME-LRD 08	2.5 - 4	6	10	16	D09D38	£25.32
ME-LRD 10	4 - 6	8	16	16	D09D38	£25.32
ME-LRD 12	5.5 - 8	12	20	20	D09D38	£25.32
ME-LRD 14	7 - 10	12	20	20	D09D38	£35.16
ME-LRD 16	9 - 13	16	25	25	D12D38	£26.65
ME-LRD 21	12 - 18	20	35	32	D18D38	£30.52
ME-LRD 22	16 - 24	25	50	50	D25D38	£33.91
ME-LRD 32	23 - 32	40	63	63	D25D38	£33.91
ME-LRD 35	30 - 38	40	80	80	D32 and D38	£44.60

# Telemecanique 3 Pole Thermal Overload Relays (continued)

For Connection by Everlink BTR screw connectors (3)							
ME-LRD 313	9 - 13	16	25	25	D40AD65A	£42.23	
ME-LRD 318	12 - 18	20	32	35	D40AD65A	£44.29	
ME-LRD 325	17 - 25	25	50	50	D40AD65A	£45.32	
ME-LRD 332	23 - 32	40	63	63	D40AD65A	£46.35	
ME-LRD 340	30 - 40	40	80	80	D40AD65A	£47.38	
ME-LRD 350	37 - 50	63	100	100	D40AD65A	£55.62	
ME-LRD 365	48 - 65	63	100	100	D50 and 65A	£58.71	

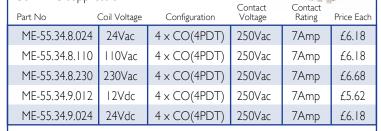
#### Telemecanique Auxillary Contacts

	9	The State State of
Part No	Description	Price Each
ME-LADN01	Front contact block NC	£5.96
ME-LADN02	2 NC Front mount contact block	£6.10
ME-LADNII	I NO I NC front mount contact block	£6.10
ME-LADNIIG	Front contact block INO + INC	£5.99
ME-LADN13	INO + 3NC, front mount contact block	£10.82
ME-LADN20	2NO, front mount contact block	£6.10
ME-LADN22	2NO 2NC, front mount contact block	£10.82
ME-LADN31	3NO INC, front mount contact block	£10.82

#### Finder 55 Series Plug-in mount 4 pole relays

#### **Features**

Lockable test button and mechanical flag indicator as standard AC & DC Coils Compatable with 94 Series Sockets Compatable with 86 Series Timer accessories Coil EMC suppression



94 Series Relay / Timer	Part No	Contact Voltage	Contact Rating	Price
Base	ME.94.04	250Vac	10Amp	£3.97

#### **86 Series Timer**

				Made in SC 01 VAO
Part No	Coil Voltage	Configuration	Time Range	Price Each
ME-86.30.0.024	12-24V ac/dc	Delay on/off	0.05s-100h	£17.86
ME-86.30.8.120	120Vac	Delay on/off	0.05s-100h	£20.05
ME-86.30.8.240	230-240Vac	Delay on/off	0.05s-100h	£20.05

## **CIRCUIT BREAKERS & ELECTRICAL ACCESSORIES**



#### Schneider Electric C60H Circuit Breakers I0kV

C60H circuit protectors are designed to provide overcurrent protection for appliances or electrical equipment. Nominal current IA to 63A, operating voltage up to 440 V ac also a large choice of breaking capacities and



tripping curves B and C available . C Curve Utilisation - cables feeding conventional loads. D Curve Utilisation - loads with high inrush current (motors, transformers).

Туре	Poles	Rating (A	) C Curve	Price	D Curve	Price
C60H	2	4	ME-C60HC204	£39.27	ME-C60HD204	£41.62
C60H	2	6	ME-C60HC206	£33.47	ME-C60HD206	£38.45
C60H	2	10	ME-C60HC210	£36.61	ME-C60HD210	£35.13
C60H	2	16	ME-C60HC216	£33.47	ME-C60HD216	£35.13
C60H	2	20	ME-C60HC220	£33.47	ME-C60HD220	£35.13
C60H	2	32	ME-C60HC232	£33.47	ME-C60HD232	£35.13
C60H	3	2	ME-C60HC302	£60.99	ME-C60HD302	£64.04
C60H	3	4	ME-C60HC304	£57.10	ME-C60HD304	£59.95
C60H	3	6	ME-C60HC306	£54.39	ME-C60HD306	£57.13
C60H	3	10	ME-C60HC310	£50.20	ME-C60HD310	£52.72
C60H	3	16	ME-C60HC316	£50.20	ME-C60HD316	£52.72
C60H	3	20	ME-C60HC320	£50.20	ME-C60HD320	£52.72
C60H	3	25	ME-C60HC325	£50.20	ME-C60HD325	£52.72
C60H	3	32	ME-C60HC332	£50.20	ME-C60HD332	£52.72

#### Vigi Modules for C60 Circuit Breakers

The Vigi module incorporates the residual current relay and toroid in a case Its earthleackage module is electro-mechanical. It functions with out an auxillary power supply source and thus has a very wide operating range. The Vigi module protects the electrical installation against insulation faults and additional protection of persons against direct contact: high sensitivity (30 mA).



Part No	Туре	Voltage (V)	Poles	Sensitivity (mA)	Price Each
ME-MGV630302	C60 (≤63A)	240 - 415	2	30	£77.21
ME-MGV633002	C60 (≤63A)	240 - 415	2	300	£84.91

#### **C60 Circuit Breakers Accessories**

#### MCB/RCD Padlock Attachment

Padlocking accessory Utilisation: Enables padlocking (in I or O position) of circuit-breakers or residual current devices. Padlock: Ø 4mm (not supplied)

Sold in packs of 2



Part No	Туре	Suitable for C60H Circuit Breaker	Price Per Pack
ME-26970	C60	C60	£7.55

## **Cavity Wall Boxes**







Part No	Description	Diameter	Depth	Price
ME-920.035.01	Single Box	68mm	35mm	£1.32
ME-920.050.01	Single Box	68mm	50mm	£1.01
ME-923.050.01	Twin Box	2×68mm	50mm	£2.28

#### Switches - I6Amp screw terminals





Part No	Description	Price
ME-3403	Double Pole   Way Switch Flush Mounted	£8.45
ME-4275	Double Pole 2 Way Switch Flush Mounted	£5.20
ME-5867	Double Pole   Way Switch Surface Mounted	£6.44
ME-5884	Double Pole   Way Switch Surface Mounted	£5.20

#### **Socket Outlets - I6Amp screw terminals**









Part No	Description	Price
ME-6285	Single Socket Flush Mounted	£5.85
ME-5739	Twin Socket Flush Mounted	£5.17
ME-6234	Single Socket Surface Mounted	£13.10
ME-6240	Twin Socket Surface Mounted	£4.88
ME-4968	Single Socket Flush Mounted (no cover plate)	£10.84
ME-5511	Single USA Socket Flush Mounted	£24.57

#### Miscellaneous





Part No	Description	Price
ME-5266	TV Point Flush Mounted	£27.30
ME-9667	25mm Single Surface Switch/Socket Box	£7.36
ME-9380	25mm Double Surface Switch/Socket Box	£12.82
ME-9671	35mm Double Surface Switch/Socket Box	£14.20
ME-9140	Single Coverplate	£1.79
ME-9141	Double Coverplate	£4.60

## **DRILL BITS & HOLESAWS**

#### **HSS Metric Jobber Drill Bits**

Precision hardened, flexable and super sharp, roll forged,HSS twist drills.

Excellant quality.

Sold in packs of 10



Part Number	Drill Diameter Ø	Drill Length	Price Per Pack
ME-DR05	3.0 mm	61 mm	£3.23
ME-DR06	3.5 mm	70 mm	£4.03
ME-DR07	4.0 mm	75 mm	£4.14
ME-DR08	4.5 mm	80 mm	£5.40
ME-DR09	5.0 mm	86 mm	£5.75
ME-DR10	5.5 mm	93 mm	£7.48
ME-DRII	6.0 mm	93 mm	£7.70
ME-DR12	6.5 mm	101 mm	£9.78
ME-DR13	7.0 mm	109 mm	£10.46
ME-DR14	7.5 mm	109 mm	£12.30
ME-DR15	8.0 mm	117mm	£13.45
ME-DR16	8.5 mm	II7 mm	£14.73
ME-DR17	9.0 mm	125 mm	£16.68
ME-DR18	9.5 mm	125 mm	£18.63
ME-DR19	10.0 mm	133 mm	£19.44

#### **Cobalt Metric Twist Drill Bits**

Particulary heat resistant. Excellant Drilling performance even in stainless and other hard steels. Precision ground flutes and diameter for excellant dimensional accuracy. 135 degress split point fully ground angle for precise centering.

Sold in packs of 10



Part Number	Drill Diameter Ø	Price Per Pack
ME-DRC05	3.0 mm	£3.66
ME-DRC06	3.5 mm	£3.90
ME-DRC07	4.0 mm	£4.63
ME-DRC08	4.5 mm	£5.04
ME-DRC09	5.0 mm	£5.46
ME-DRC10	5.5 mm	£6.36
ME-DRC11	6.0 mm	£6.73
ME-DRC12	6.5 mm	£8.34
ME-DRC13	7.0 mm	£9.60
ME-DRC14	7.5 mm	£10.93
ME-DRC15	8.0 mm	£11.94
ME-DRC16	8.5 mm	£12.90
ME-DRC17	9.0 mm	£13.80
ME-DRC18	9.5 mm	£15.54
ME-DRC19	10.0 mm	£17.04

#### **HSS Bimetal Holesaws**

High quality and will suit most applications such as steel, iron, cast iron, pipes, non-ferrous metal, plastics, wood & sandwich type material. All Holesaws have a 32mm cutting depth.



	Part Number	Size (mm)	Price	Part Number	Size (mm)	Price
ſ	ME-HLE02	16	£3.26	ME-HLEII	32	£4.56
	ME-HLE04	19	£3.26	ME-HLE13	38	£5.35
	ME-HLE05	20	£3.26	ME-HLE14	40	£5.35
	ME-HLE06	22	£3.26	ME-HLE16	51	£5.75
	ME-HLE08	25	£4.10	ME-HLE17	57	£6.71
	ME-HLE10	30	£4.41	ME-HLE18	64	£6.99
				ME-HLE68	68	£11.44

ME-HLE01 To ME-HLE10 To Suit 1/2" x 20 Drive Adaptors ME-HLEII To ME-HLE23 To Suit 5/8" x 18 Hex Arbour

#### **Drive Adaptor**

Drive Adaptors come complete with HSS Pilot Bit Suitable for Holesaws I 4mm to 30mm



ME-HLEA01 1/2" x 20 Drive Adaptor (9.5mm Hex)

£4.63

#### **Hex Arbour**

Pin Drive Hex Arbour comes complete with HSS Pilot Bit. Suitable for Holesaws 32 mm to 152 mm



#### **HSS Pilot Bit**

For use with Drive Adaptors and Hex Arbour



## **MISCELLANEOUS**



#### **Grommets**

Rutaseal Gromme	t Sold in pac	Sold in pack of 50		
Part No	Size	Price Per Pack		
ME-RS0509M16	MI6	£8.00		
ME-RS0813M20	M20	£9.00		
ME-RS1117M25	M25	£12.25		



Wiring Gromme	et Sold in pack	Sold in pack of 100		
Part No	Size	Price Per Pack		
ME-GR16W	MI6	£2.56		
ME-GR20W	M20	£2.69		
ME-GR25W	M25	£4.25		



net	Sold in pack of 100		
	Size	Price Per Pack	
	MI6	£2.95	
	M20	£3.13	
	M25	£4.81	
	net	Size M16 M20	



#### **Wolf Torches**

Wolf Ex certified safety torch.



Requires 4 x AA Batteries (not included) Part No Description Price Each

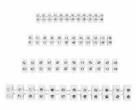
ME-TR24	Yellow zone I + 2	£24.50
ME-TR40	LED Yellow zone I + 2	£64.31
ME-TR45	LED Black zone 0	£77.19



## **Connector Strip**

Manufactured from clear Polyethylene Supplied in strips of 12. 10 strips per pack

Part No	Current Rating	Price Per Pack
ME-CS5	5 Amp	£3.69
ME-CS15	15 Amp	£6.19
ME-CS30	30 Amp	£10.13
ME-CS60	60 Amp	£37.38



#### **Batteries**

Non-rechargable batteries.

Part No	Description	Price Per Pack
ME-DB1	AAA Batteries 4 pk	£2.98
ME-DB2	AA Batteries 4 pk	£2.98
ME-DB3	C Batteries 2 pk	£2.48
ME-DB4	D Batteries 2 pk	£3.20
ME-DB5	PP3 Batteries I pk	£3.08



#### Fluorescent Tubes

Sold in packs of 25



Description	''	v v ai i i i v v i ii c c		VVIIIC	COOI VVIIIC			Jayıığııı	
Effect		Cosy,		Neutral		Clean,		Sterile,	
		Welcom	iing			Professional		Cold	
Typical		Recption/	Rest	General	Office / Production		oduction	Toilets,	
Applicatio	ons Areas Purpose Area		eas Kito		Kitchens				
Part No	Description			Colour		Power		Length Pack Per Price	
ME-L823	T5	Flu Tube	\	White	835	8w	300mm		£0.85
ME-1500	Т8	Flu Tube	Cool White		840	18w	604mm		£1.43
ME-1501	Т8	Flu Tube	War	m White	830	18w	604mm		£1.43
ME-1502	Т8	Flu Tube	DayLight		865	18w	604mm		£1.43
ME-580	Т8	Flu Tube	\	White		18w	604mm		£1.53
ME-1510	Т8	Flu Tube	Coc	Cool White		36w	1213.6mr	n	£1.53
ME-1511	Т8	Flu Tube	Warm White		830	36w	1213.6mr	n	£1.53
ME-1512	Т8	Flu Tube	DayLight		865	36w	1213.6mr	n	£1.53
ME-578	Т8	Flu Tube	White		835	36w	1213.6mr	n	£1.53

#### **Danfoss KP Pressure Switches**

KP pressure controls are for use in refrigeration and air conditioning systems to give protection against excessively low suction pressure or excessively high discharge pressure. The controls are also used for starting and stopping refrigeration compressors and fans on aircooled condensers. KP pressure controls are available in IP 30 and IP 44 enclosures.

#### KP Pressure Control Low Pressure

Part No	Contact Function	Price Each			
ME-060-110166	Flare	-0.20 - 7.50 bar	0.70 - 4.00 bar	SPDT	£33.37
ME-060-110366	Flare	-0.90 - 7.00 bar	0.70 bar	SPDT	£42.38

#### **Dual KP Pressure Control**

Part No	Conn. Type	Reg. left (bar) Pe	Reg. right (bar) Pe	Diff. left side (bar)	Diff, right side (bar)	
ME-060-000766	Flare Nut	-0.20 - 7.50 bar	8.0 - 32.0 bar	0.70 - 4.00 bar	4.00 bar	£148.06
ME-060-001066	Solder, ODF	-0.20 - 7.50 bar	8.0 - 32.0 bar	0.70 - 4.00 bar	4.00 bar	£103.50

#### KP Spare Parts & Accessories

Part No	Description	Price Each
ME-060-008666	Front Cover For Single Control	£11.121
ME-060-011366	Front Cover For Dual Control	£16.06
ME-060-109766	Top Cover For Single Control	£6.31
ME-060-109866	Top Cover For Dual Control	£8.19
ME-060-003166	Protective Cap For Single Control	£3.51
ME-060-003266	Protective Cap For Dual Control	£4.42
ME-060-033066	IP55 Enclosure From Single Control	£11.90
ME-060-035066	IP55 Enclosure For Dual Control	£16.06



## **Marine Electrical Installations Limited**

Unit 25 Whitegates Business Park, Lenzie Road, Kirkintilloch, Glasgow G66 3BQ Fax: +44 (0) 141 776 2092 e-mail: sales@m-e-i.co.uk

Tel: +44 (0) 141 776 2020 www.m-e-i.co.uk

#### **M-E-I Services Offered**

Electrical Design and Class Approval Service Electrical Installation Both New and Retrofit

Thermographic Surveys

**Electrical Surveys** 

Fault Diagnosis

**Emergency Repair** 

Commissioning

Project Management

**CAD Drawing Service** 

## **Experience**

Generators

Lighting & Power Systems

Fire & Gas Detection Systems

Public Address Systems

Motor Control Systems

Refrigeration Systems

**Hvac Systems** 

**CCTV Systems** 

Nav Aids & Comms Systems

Data Networks

**Engine Wiring** 

Safety/ Monitoring Systems

Contolled Entry Systems

Battery/ UPS Systems

## **Panel Equipment & Design/ Construction**



Transformers
Distribution Boards
Motor Starters

Control Panels
Bespoke Alarm/ System Panels

