



# PRODUCT RANGE

## EDITION 22

**INNOVATORS,  
MANUFACTURERS  
& DISTRIBUTORS  
OF ELECTRICAL  
PRODUCTS**





## ABOUT US

The MATElec business, founded in the early 1970s in South Africa as a manufacturer and distributor of electrical products, operated on three fundamental and guiding principles:

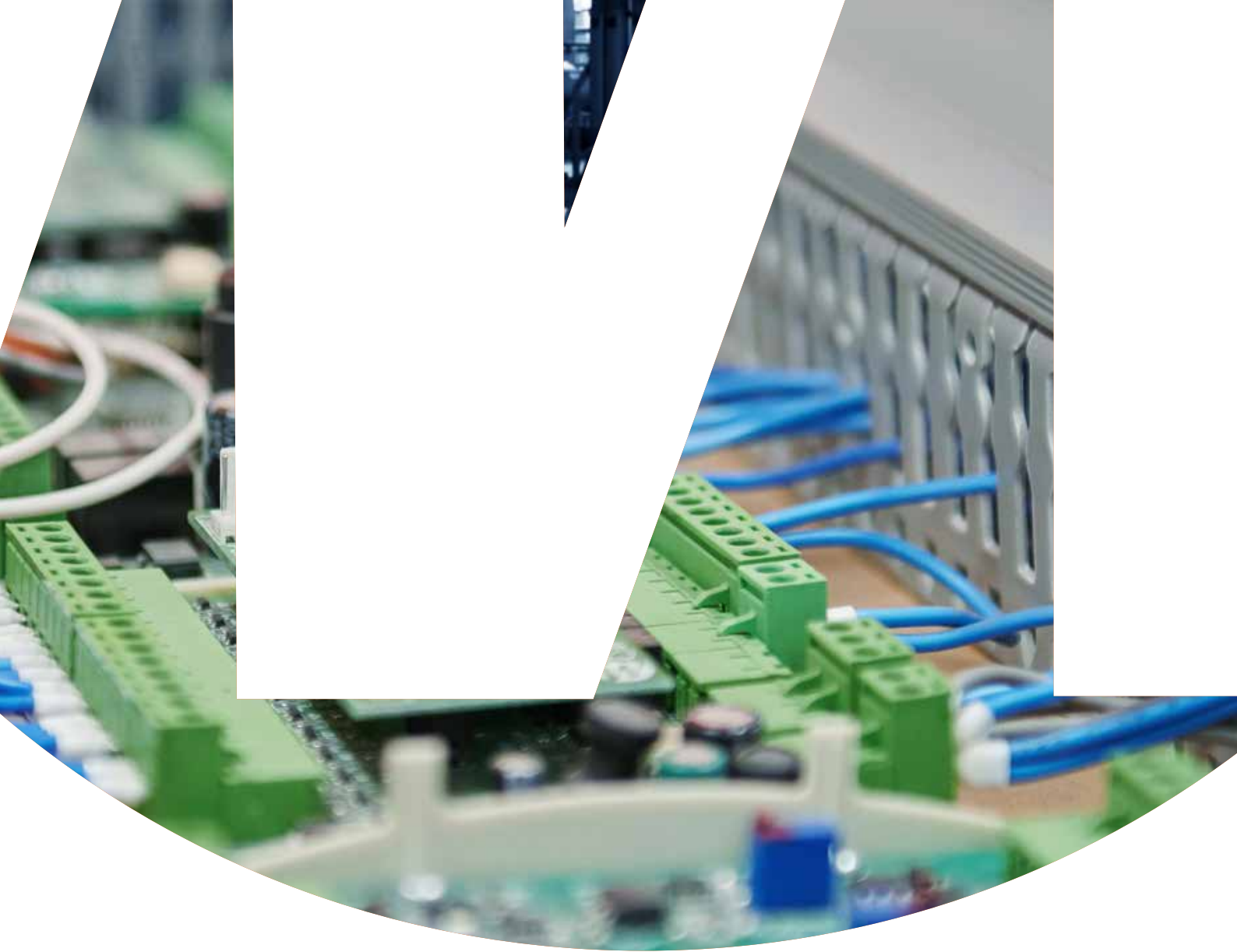
- An unswerving commitment to integrity at every level
- Doing business with tangible energy and passion
- Ensuring an exceptional customer experience at every touchpoint.

For almost 50 years, the brand has evolved, becoming a highly reputed name in the electrical industry across many countries.

In 2002, building on the well-proven sustainable business model of three decades, MATElec Australia, 100% Australian owned and operated, was established. Now, twenty years on, MATElec Australia is a significant player in the industry, sourcing, designing, manufacturing and distributing an exceptional range of electrical products throughout the Oceania region.

In addition to the comprehensive range of electrical commodity products, marketed and distributed through the Electrical Wholesaler network, MATElec Australia manufactures 'in-house', a vast range of high-quality and cutting-edge pump and motor control products that perform strategic functionality in infrastructure assets across many industries, including Water Supply and Treatment, Mining, Agriculture, Military, Heating Ventilation & Cooling and Mechanical Services. The manufacturing facility, located in Victoria, has further distinguished the company and brand with the capability to design, engineer, manufacture and deliver 'site/application ready' control panels for thousands of strategic installations, both locally and abroad.

MATElec Australia has invested heavily in the 'Australia Manufacturing Community', with a significant commitment to growth in local employment as it executes its year-on-year expansion plans. The Team at MATElec Australia all reflect the truly unique dynamic 'customer focused' culture that drives the continuous development of valuable products and services that will not only meet but exceed the expectations of the market for the now and beyond!



## OUR MISSION

To passionately pursue the development of products, services and solutions, that represent **'exceptional value'** and reflect the inspirational and dynamic culture of the company, while enriching the community of clients, staff, management and suppliers involved in the process.

## OUR VISION

To be the **'No.1 choice'** and **'most trusted source'**, for all products and services we offer our clients, through an enduring commitment by our entire team, to consistently deliver **'service excellence'**, **'superior quality'**, **'functional innovation'** and **'tangible value'**.

# CONTENTS

## CABLE ACCESSORIES

<b>CABLE CONNECTORS - INSULATED</b>	8
<b>STRIP CONNECTORS</b>	9
<b>CABLE GLANDS - NYLON</b>	10
<b>CABLE GLANDS - MULTI-HOLE &amp; INSERTS</b>	11
<b>CONDUIT SADDLES</b>	
316 STAINLESS STEEL	12
HOT-DIPPED GALVANISED	13
ZINC PLATED	14
<b>GIRDER CLIPS</b>	15
<b>CABLE CLIPS</b>	
NAIL IN	16
STAINLESS STEEL	17
<b>CABLE TIES</b>	
NYLON	18
316 STAINLESS STEEL	19
COATED 316 STAINLESS STEEL	20
NYLON WITH STAINLESS STEEL PAWL	21
<b>CABLE TIE MOUNTS</b>	22
<b>TAPE</b>	
RAINBOW / INSULATION	23
DUCT / JOINING & SEALING	24
UNDERGROUND WARNING	25
<b>JUNCTION BOXES</b>	26
<b>SNAP BUSHINGS - NYLON</b>	27
<b>CORRUGATED CONDUIT</b>	28
<b>CONDUIT FITTINGS - PVC</b>	29-35

## HARDWARE

<b>HOLESAWS - HEAVY DUTY MILLED CARBIDE</b>	38
<b>JACK CHAIN &amp; DIN RAIL</b>	39
<b>METAL ENCLOSURES - SS &amp; MILD STEEL</b>	40
<b>PLASTER &amp; MOUNTING BRACKETS</b>	41
<b>CATENARY WIRE</b>	42
<b>CATENARY WIRE ACCESSORIES</b>	43
<b>TENSIONING TOOLS - CABLE TIES</b>	44
<b>WALL BOXES - FIRE RATED</b>	45
<b>ROOF PENETRATION SEALS</b>	46

## SENSORS & KWH METERS

<b>SMOKE DETECTORS - PHOTOELECTRIC</b>	
240V	50
WIRELESS - 10 YR LITHIUM BATTERY	51
240V - 10 YR LITHIUM BATTERY WITH OPTIONAL WIRELESS INTERCONNECT MODULE	52
INTERCONNECT MODULE & REMOTE - WIRELESS	53
FSA-30000, FSA-50000 & FSA-60000 - INTERCONNECTION OPTIONS	54
<b>PIR MOTION SENSORS</b>	
<b>360° CEILING MOUNT</b>	
SURFACE MOUNT	56
FLUSH MOUNT - PREMIUM	57
FLUSH MOUNT - ECONO	58
FLUSH MOUNT - MINI	59
DUAL MOUNT - PREMIUM	60
DUAL MOUNT - ECONO	61
<b>WALL MOUNT</b>	
180° ROUND	62
COBRA IP65	63
SENTRY IP66	64
<b>PRESENCE SENSORS</b>	
<b>360° CEILING MOUNT</b>	
SURFACE MOUNT - MICROWAVE	65
FLUSH MOUNT - MICROWAVE	66
INTERIOR MOUNT - MINI MICROWAVE	67
<b>MOTION &amp; PRESENCE SENSOR COMPARISON</b>	68
<b>KWH METERS</b>	
SURFACE MOUNT - SINGLE PHASE	69
SURFACE MOUNT - THREE PHASE	70
DIN MOUNT - SINGLE PHASE	71
DIN MOUNT - SINGLE PHASE NMI	72
DIN MOUNT - THREE PHASE NMI	73
<b>TIMERS</b>	
SINGLE PHASE - 7-DAY PROGRAMMABLE - ECONO	74
SINGLE PHASE - ANALOGUE 24 HOUR	75
SINGLE PHASE - 7-DAY PROGRAMMABLE - PREMIUM	76

## LIGHTING

<b>LED WEATHERPROOF FITTINGS</b>	
OXFORD IP66	80
CAPRICORN IP65	81
<b>BULKHEAD - BABY EMPEROR</b>	82
<b>FLOODLIGHTS - SLIMLINE LED</b>	83
<b>LAMP HOLDERS &amp; 3 PIN PLUG + LEAD</b>	84

## DAY / NIGHT SWITCHES

HDAD - SQUARE PROGRAMMABLE	88
LR50	89
LR100	90
NEMA STYLE - AR20N & NEMA BASE	91

## WARNING EQUIPMENT

SIRENS, ALARMS & BELLS	94
STROBES & FLASHING LIGHTS	95

## LIQUID LEVEL CONTROL

### LEVEL SWITCHES & SENSORS

#### FLOAT SWITCHES

9004 SERIES	98
9006 SERIES	99
9010 SERIES	100
9011 HIGH HEAT	101
MAGNETIC HORIZONTAL	102
STAINLESS STEEL MAGNETIC	103

#### MULTI LEVEL FLOAT TREES

3 FLOAT	104
4 FLOAT	105

#### CONDUCTIVITY SENSING PROBES

SINGLE POINT	106
4 POINT	107
10 POINT	108

#### HYDROSTATIC LEVEL TRANSDUCERS

POTABLE WATER	109
SEWAGE/WASTEWATER	110

#### PRESSURE TRANSDUCERS

111

#### CABLE ACCESSORIES

TRANSDUCER HANGING BRACKET	112
BREATHABLE WATERPROOF JUNCTION BOX	113
IP68 WATERPROOF CABLE CONNECTORS	1146

### LIQUID LEVEL ALARMS

STANDARD	115
DELUXE	116
FLUSH MOUNT	117
WITH SMS	118
BATTERY BACKUP	119
SOLAR POWERED	120
HIGH & LOW LEVEL	121
WITH PROBE INPUTS	122
AUTO PUMP CONNECTION	123
VALVE SHUT-OFF	124

### UNDERSINK ALARM & SHUT-OFF CONTROLLERS

VALVE & DISHWASHER SHUT-OFF	125
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VALVE, PUMP, BWU & DISHWASHER SHUT-OFF WITH DRIP TRAY MOISTURE SENSORS	126
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### TANK LEVEL CONTROL & INDICATION

TANK FILL CONTROLLERS - PUMP SHUT-OFF	127
LOW LEVEL PUMP SHUT-OFF CONTROLLERS	128
TANK FILL CONTROLLERS - VALVE SHUT-OFF	129
TANK FILL DIVERSION VALVE CONTROLLERS	130
TANK LEVEL INDICATORS	
FOUR LEVELS	131
STANDARD & DUAL	132
WIRELESS	133
GREY WATER PUMP CONTROLLERS	134

### PUMP CONTROLLERS

ECONO	135
COMPAKT	136
STANDARD - ELECTRONIC O/LOAD	138
STANDARD	140
STANDARD - REPLACEMENT MODULES & KEYPADS	142

### RAIN/MAINS PUMP CONTROLLERS

QUICK PLUG	143
SINGLE PUMP	144
DUAL PUMP	146

### HOT WATER CIRCULATION PUMP CONTROLLERS

ECONO	148
STANDARD - ELECTRONIC O/LOAD	149
STANDARD	150

### AUXILIARY & MONITORING EQUIPMENT

REMOTE STATUS INDICATORS	151
REMOTE ALARM INDICATORS	152
BMS MODULE	153
SMS ALARM/STATUS COMMUNICATORS	154
REMOTE SIGNAL COMMUNICATORS	
RADIO	156
TWO WAY SMS	157
TWO WAY RADIO	158

& MUCH MORE...	160
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# CABLE ACCESSORIES





<b>CABLE CONNECTORS - INSULATED</b>	8
<b>STRIP CONNECTORS</b>	9
<b>CABLE GLANDS - NYLON</b>	10
<b>CABLE GLANDS - MULTI-HOLE &amp; INSERTS</b>	11
<b>CONDUIT SADDLES</b>	
316 STAINLESS STEEL	12
HOT-DIPPED GALVANISED	13
ZINC PLATED	14
<b>GIRDER CLIPS</b>	15
<b>CABLE CLIPS</b>	
NAIL IN	16
STAINLESS STEEL	17
<b>CABLE TIES</b>	
NYLON	18
316 STAINLESS STEEL	19
COATED 316 STAINLESS STEEL	20
NYLON WITH STAINLESS STEEL PAWL	21
<b>CABLE TIE MOUNTS</b>	22
<b>TAPE</b>	
RAINBOW / INSULATION	23
DUCT / JOINING & SEALING	24
UNDERGROUND WARNING	25
<b>JUNCTION BOXES</b>	26
<b>SNAP BUSHINGS - NYLON</b>	27
<b>CORRUGATED CONDUIT</b>	28
<b>CONDUIT FITTINGS - PVC</b>	29-35

# CABLE CONNECTORS

## INSULATED

### FEATURES & BENEFITS

- Tapered cable entry
- Deep flat/slotted screw heads, enabling tight positive connection
- Soft, pliable material
- High quality jar.

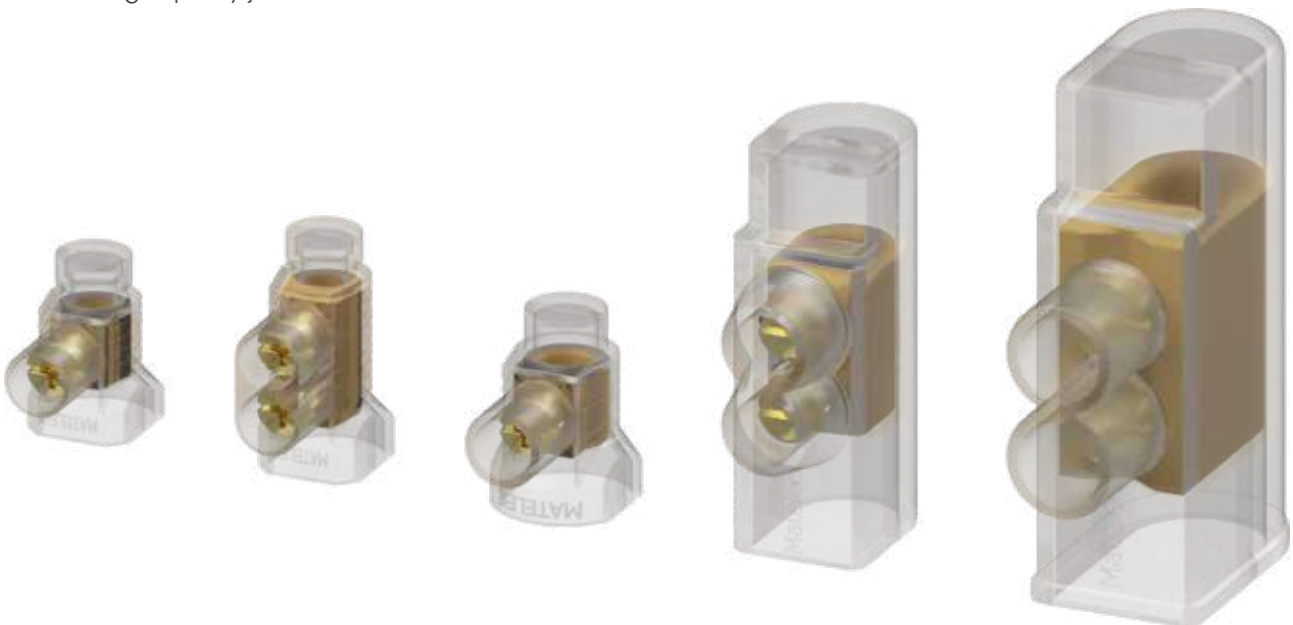
### SPECIFICATIONS

#### Materials:

- Insulator - Flame retardant PVC
- Connector - Brass

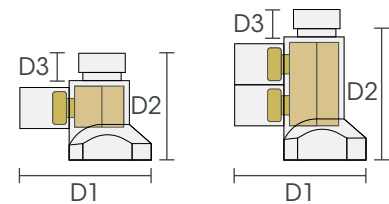
#### Voltage:

- 240V



### DIMENSIONS

	2 x 6mm <sup>2</sup> Single	3 x 6mm <sup>2</sup> Single	2 x 6mm <sup>2</sup> Double	2 x 16mm <sup>2</sup> Double	2 x 35mm <sup>2</sup> Double
D1 (mm)	22	25.2	22	38	45
D2 (mm)	20.3	22.16	27.2	44.5	58.5
D3 (mm)	4.8	4.8	4.8	8	11.5



### CABLE CONNECTORS - INSULATED RANGE

Code	Description	Amp Rating	Packing	MOQ	Ctn
SC1-2X6/100	2 x 6mm <sup>2</sup> Single Screw Connector	32 Amp	100/Jar	1 Jar	18
SC1-2X6/500	2 x 6mm <sup>2</sup> Single Screw Connector	32 Amp	500/Jar	1 Jar	4
SC1-3X6/50	3 x 6mm <sup>2</sup> Single Screw Connector	40 Amp	50/Jar	1 Jar	18
SC2-2X6/50	2 x 6mm <sup>2</sup> Double Screw Connector	32 Amp	50/Jar	1 Jar	18
SC2-2X6/500	2 x 6mm <sup>2</sup> Double Screw Connector	32 Amp	500/Jar	1 Jar	4
SC2-3X6/50	3 x 16mm <sup>2</sup> Double Screw Connector	32 Amp	50/Box	1 Jar	18
SC2-2X16	2 x 16mm <sup>2</sup> Double Screw Connector	63 Amp	10/Box	1 Box	360
SC2-2X35	2 x 35mm <sup>2</sup> Double Screw Connector	80 Amp	10/Jar	1 Jar	180



# STRIP CONNECTORS

## FEATURES & BENEFITS

- 12 pole / 2 way
- Flexible and pliable material
- Flat head screws.

## SPECIFICATIONS

### Material:

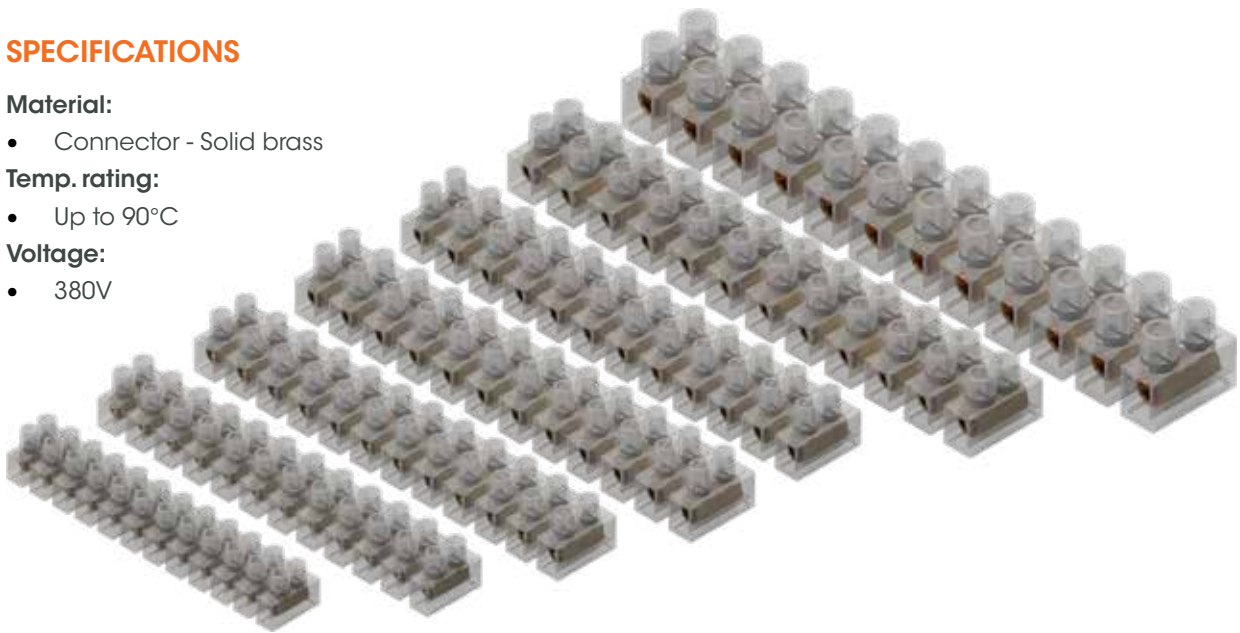
- Connector - Solid brass

### Temp. rating:

- Up to 90°C

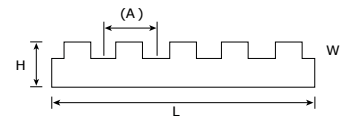
### Voltage:

- 380V



## DIMENSIONS

Code	Length (mm)	Height (mm)	Width (mm)	Cable Entry (mm)	Mounting Spacing (A) (mm)
STC-M4/3A	93	13.5	17	3.0	8
STC-M6/5A	113	13	16	3.5	9.5
STC-M10/10A	129	16	21	3.8	11.5
STC-M12/15A	138	17	22.5	4.2	11.5
STC-M14/20A	140	17.5	22	4.7	12.0
STC-M16/30A	166	18.5	25.5	5.5	14.5
STC-M25/60A	185	26	30	6.4	16.1



## STRIP CONNECTORS RANGE

Code	Description	Amp Rating	Packing	MOQ	Ctn
STC-M4/3A	4mm <sup>2</sup> - Natural	3 Amp	10	10	1000
STC-M6/5A	6mm <sup>2</sup> - Natural	5 Amp	10	10	800
STC-M10/10A	10mm <sup>2</sup> - Natural	10 Amp	10	10	400
STC-M12/15A	12mm <sup>2</sup> - Natural	15 Amp	8	8	480
STC-M14/20A	14mm <sup>2</sup> - Natural	20 Amp	10	10	400
STC-M16/30A	16mm <sup>2</sup> - Natural	30 Amp	6	6	360
STC-M25/60A	25mm <sup>2</sup> - Natural	60 Amp	10	10	200

# CABLE GLANDS

## NYLON

### FEATURES & BENEFITS

- UV resistant
- Vibration resistant - Ratchet action
- Complete with TPE rubber gasket
- 1.5 metric threads
- CE and RoHS compliant
- Low smoke - Halogen free.

### SPECIFICATIONS

#### Materials:

- Gland - Nylon PA66
- Gasket - TPE

#### Weatherproof rating:

- IP68

#### Operating temperature:

- -40°C to 100°C

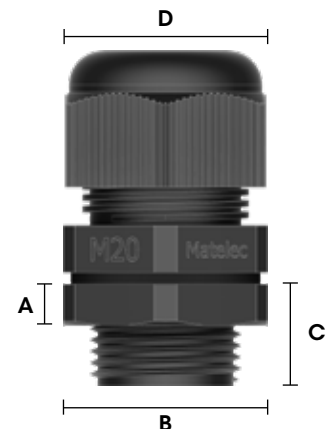
#### Flammability:

- UL94V-2



### DIMENSIONS

Code	A (mm)	B (mm)	C (mm)	D (mm)	Cable Size (mm)
NCG-M12/B	5	17	8	15.5	3 - 6
NCG-M16/B	5	22	15	21.5	4 - 9
NCG-M20/B	5.5	26.5	15	26.5	6 - 12
NCG-M25/B	6.5	32.5	15	32.5	8 - 16
NCG-M32/B	7	38.5	15	41.5	14 - 22
NCG-M40/B	7.5	55.5	20	53.5	22 - 33
NCG-M50/B	10.5	66	18.5	56	27 - 37
NCG-M63/B	11.5	80	20	68	32 - 47



### CABLE GLANDS - NYLON RANGE

Code	Description	Packing	MOQ	Ctn
NCG-M12/B	Nylon Cable Gland - 12mm - Black	100	100	3000
NCG-M16/B	Nylon Cable Gland - 16mm - Black	50	50	1500
NCG-M20/B	Nylon Cable Gland - 20mm - Black	30	30	900
NCG-M25/B	Nylon Cable Gland - 25mm - Black	20	20	600
NCG-M32/B	Nylon Cable Gland - 32mm - Black	12	12	360
NCG-M40/B	Nylon Cable Gland - 40mm - Black	6	6	180
NCG-M50/B	Nylon Cable Gland - 50mm - Black	4	4	120
NCG-M63/B	Nylon Cable Gland - 63mm - Black	2	2	60

## MULTI-HOLE & INSERTS

### FEATURES & BENEFITS

- UV resistant
- Vibration resistant - Ratchet action
- Complete with multi-hole insert
- Self-locking end cap
- CE and RoHS compliant
- Excellent strain relief
- Low smoke - Halogen free.

### SPECIFICATIONS

#### Materials:

- Gland - Nylon PA66
- Insert - NRB rubber

#### Weatherproof rating:

- IP68

#### Operating temperature:

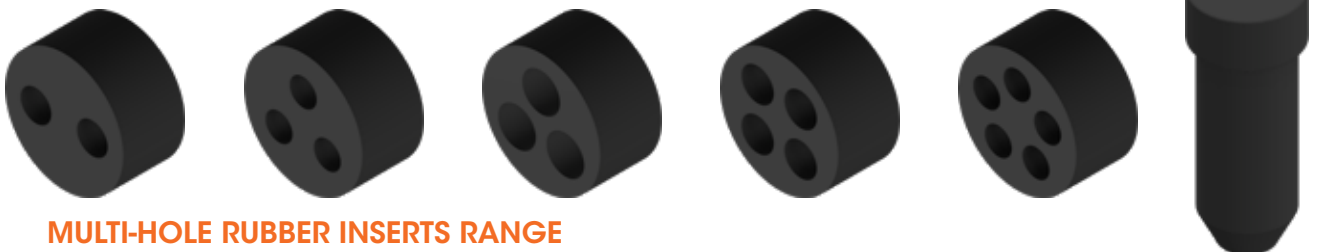
- -40°C to 100°C

### DIMENSIONS



### MULTI-HOLE NYLON CABLE GLANDS RANGE

Code	Description	Packing	MOQ	Ctn
NCG-M25/2x5.7	Multi-Hole Nylon Cable Gland - 25mm - 2 x 5.7mm Hole	20	20	600
NCG-M25/3x5.0	Multi-Hole Nylon Cable Gland - 25mm - 3 x 5.0mm Hole	20	20	600
NCG-M25/3x7.0	Multi-Hole Nylon Cable Gland - 25mm - 3 x 7.0mm Hole	20	20	600
NCG-M25/4x5.0	Multi-Hole Nylon Cable Gland - 25mm - 4 x 5.0mm Hole	20	20	600
NCG-M25/4x6.0	Multi-Hole Nylon Cable Gland - 25mm - 4 x 6.0mm Hole	20	20	600
NCG-M25/5x5.0	Multi-Hole Nylon Cable Gland - 25mm - 5 x 5.0mm Hole	20	20	600



### MULTI-HOLE RUBBER INSERTS RANGE

Code	Description	Packing	MOQ	Ctn
MHI-M25/2x5.7	Multi-Hole Rubber Insert - 25mm - 2 x 5.7mm Hole	100	100	3600
MHI-M25/3x5.0	Multi-Hole Rubber Insert - 25mm - 3 x 5.0mm Hole	100	100	3600
MHI-M25/3x7.0	Multi-Hole Rubber Insert - 25mm - 3 x 7.0mm Hole	100	100	3600
MHI-M25/4x5.0	Multi-Hole Rubber Insert - 25mm - 4 x 6.0mm Hole	100	100	3600
MHI-M25/4x6.0	Multi-Hole Rubber Insert - 25mm - 4 x 6.0mm Hole	100	100	3600
MHI-M25/5x5.0	Multi-Hole Rubber Insert - 25mm - 5 x 5.0mm Hole	100	100	3600
MHIP-M5B	Multi-Hole Insert Plug 5mm Black Bag/100	100	100	40 000
MHIP-M6B	Multi-Hole Insert Plug 6mm Black Bag/100	100	100	40 000

# CONDUIT SADDLES

## 316 STAINLESS STEEL

**316  
STAINLESS  
STEEL**

### FEATURES & BENEFITS

- Non-corrosive
- Suitable for marine and submerged applications
- Strength rib for stronger rigidity
- Comprehensive range.

### SPECIFICATIONS

#### Materials:

- 316 grade stainless steel

#### Fixing hole Ø:

- 6.5mm

#### Material thickness:

- Full saddle - 0.8mm
- Half saddle - 1.2mm



### CONDUIT SADDLES - 316 STAINLESS STEEL RANGE

Code	Description	Strip Width	Packing	MOQ	Ctn
HS-M12/SS	316 S/Steel Saddle - 12mm - Half	19mm	100	100	2000
HS-M16/SS	316 S/Steel Saddle - 16mm - Half	20mm	100	100	1600
HS-M20/SS	316 S/Steel Saddle - 20mm - Half	20mm	100	100	1200
HS-M25/SS	316 S/Steel Saddle - 25mm - Half	24mm	100	100	800
HS-M32/SS	316 S/Steel Saddle - 32mm - Half	25mm	60	60	720
HS-M40/SS	316 S/Steel Saddle - 40mm - Half	32mm	45	45	540
HS-M50/SS	316 S/Steel Saddle - 50mm - Half	40mm	20	20	240
FS-M12/SS	316 S/Steel Saddle - 12mm - Full	16mm	100	100	2000
FS-M16/SS	316 S/Steel Saddle - 16mm - Full	17mm	100	100	1600
FS-M20/SS	316 S/Steel Saddle - 20mm - Full	17mm	100	100	1200
FS-M25/SS	316 S/Steel Saddle - 25mm - Full	20mm	100	100	800
FS-M32/SS	316 S/Steel Saddle - 32mm - Full	24mm	60	60	720
FS-M40/SS	316 S/Steel Saddle - 40mm - Full	24mm	45	45	540
FS-M50/SS	316 S/Steel Saddle - 50mm - Full	23mm	20	20	240

# CONDUIT SADDLES

## HOT-DIPPED GALVANISED

**HOT-DIPPED  
GALVANISED**

### FEATURES & BENEFITS

- Heavy duty corrosion resistant
- Strength rib for stronger rigidity.

### SPECIFICATIONS

**Material:**

- Strip steel

**Coating:**

- Hot-dipped galvanised - Post forming

**Fixing hole Ø:**

- 6.5mm

**Material thickness:**

- Full saddle - 0.8mm
- Half saddle - 1.2mm



### CONDUIT SADDLES - HOT-DIPPED GALVANISED RANGE

Code	Description	Strip Width	Packing	MOQ	Ctn
HS-M20/HDG	Hot-Dipped Galv Saddle - 20mm - Half	20mm	100	100	1200
HS-M25/HDG	Hot-Dipped Galv Saddle - 25mm - Half	24mm	100	100	800
HS-M32/HDG	Hot-Dipped Galv Saddle - 32mm - Half	25mm	60	60	720
HS-M40/HDG	Hot-Dipped Galv Saddle - 40mm - Half	32mm	45	45	540
HS-M50/HDG	Hot-Dipped Galv Saddle - 50mm - Half	40mm	20	20	240
FS-M20/HDG	Hot-Dipped Galv Saddle - 20mm - Full	17mm	100	100	1200
FS-M25/HDG	Hot-Dipped Galv Saddle - 25mm - Full	20mm	100	100	800
FS-M40/HDG	Hot-Dipped Galv Saddle - 40mm - Full	24mm	45	45	540
FS-M50/HDG	Hot-Dipped Galv Saddle - 50mm - Full	23mm	20	20	240

# CONDUIT SADDLES

## ZINC-PLATED

ZINC  
PLATED

### FEATURES & BENEFITS

- Zinc plated for finish and additional edge protection
- Strength rib for stronger rigidity
- Comprehensive range.

### SPECIFICATIONS

**Material:**

- Strip steel

**Finish:**

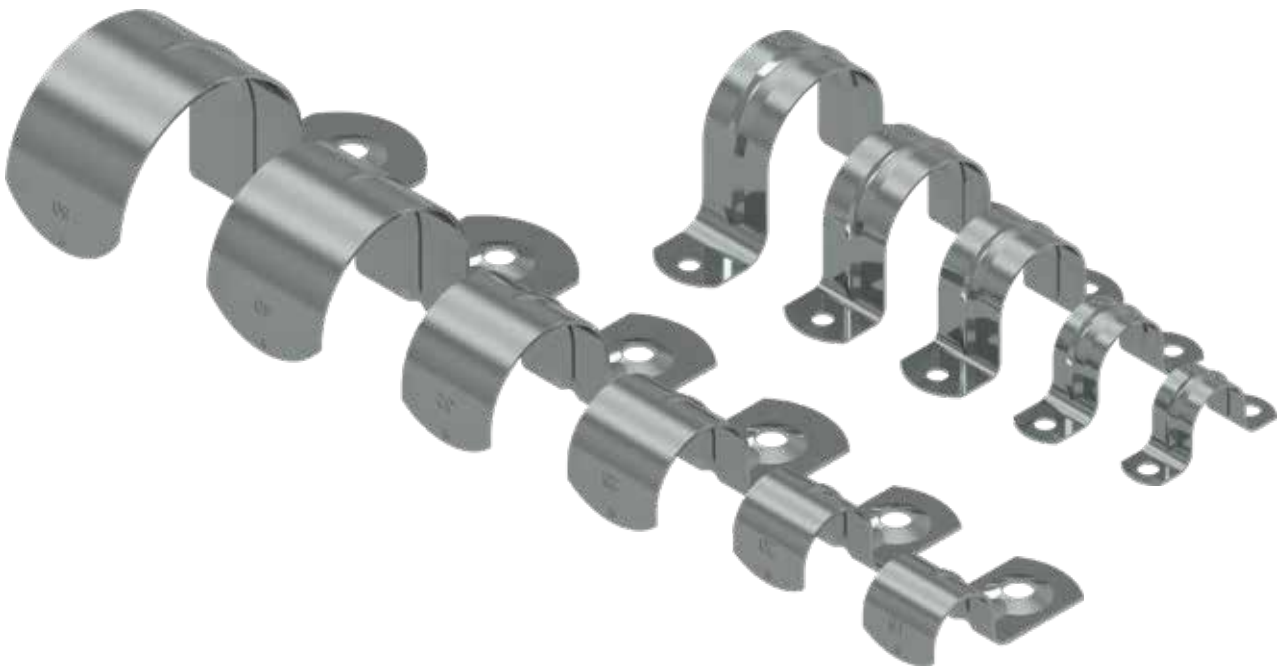
- Zinc-plated

**Fixing hole Ø:**

- 6.5mm

**Material thickness:**

- Full saddle - 0.8mm
- Half saddle - 1.2mm



### CONDUIT SADDLES - ZINC-PLATED RANGE

Code	Description	Strip Width	Packing	MOQ	Ctn
HS-M16/ZP	Zinc-Plated Saddle - 16mm - Half	20mm	100	100	800
HS-M20/ZP	Zinc-Plated Saddle - 20mm - Half	20mm	100	100	1200
HS-M25/ZP	Zinc-Plated Saddle - 25mm - Half	24mm	100	100	800
HS-M32/ZP	Zinc-Plated Saddle - 32mm - Half	25mm	60	60	720
HS-M40/ZP	Zinc-Plated Saddle - 40mm - Half	32mm	45	45	360
HS-M50/ZP	Zinc-Plated Saddle - 50mm - Half	40mm	20	20	160
FS-M20/ZP	Zinc-Plated Saddle - 20mm - Full	17mm	100	100	1200
FS-M25/ZP	Zinc-Plated Saddle - 25mm - Full	20mm	100	100	800
FS-M32/ZP	Zinc-Plated Saddle - 32mm - Full	24mm	60	60	720
FS-M40/ZP	Zinc-Plated Saddle - 40mm - Full	24mm	45	45	540
FS-M50/ZP	Zinc-Plated Saddle - 50mm - Full	23mm	20	20	360

## ZINC-PLATED

### FEATURES & BENEFITS

- Zinc-plated for finish and additional edge protection
- High impact resistance
- Packed in jars for added convenience.

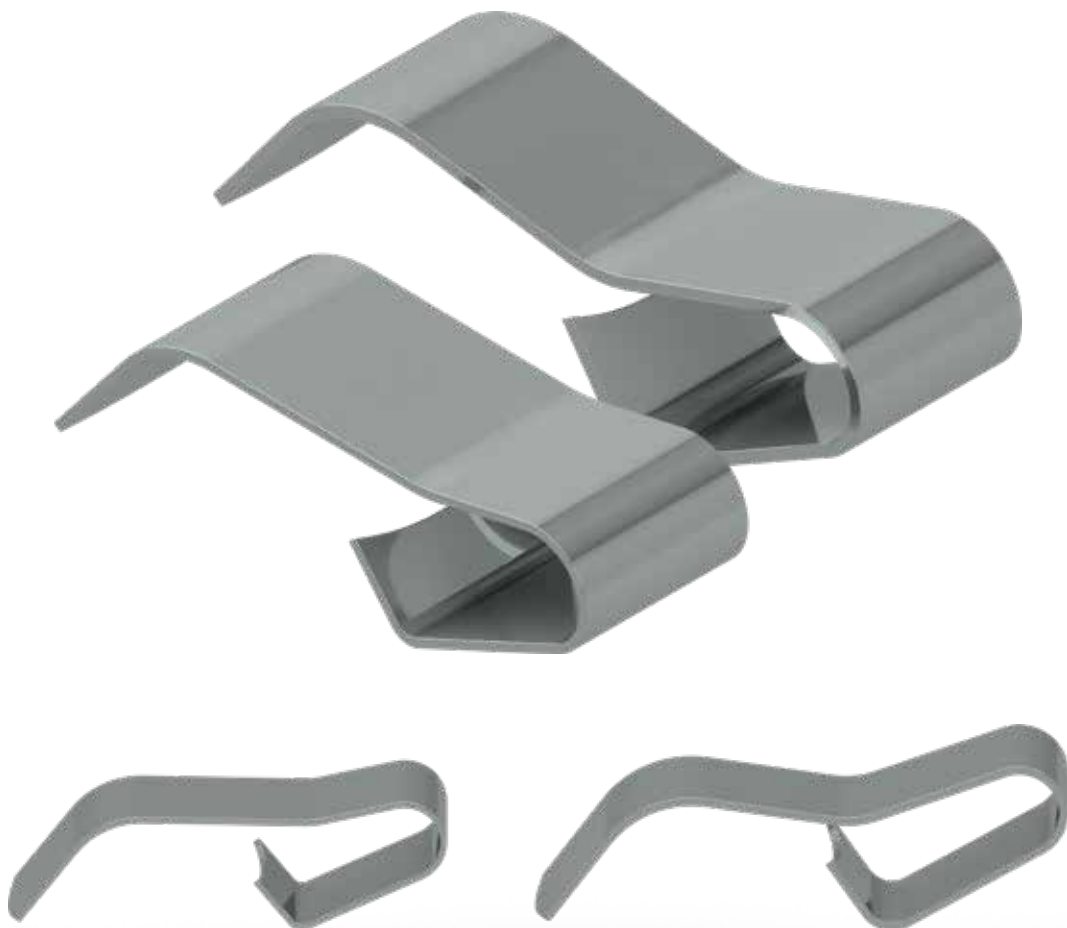
### SPECIFICATIONS

**Material:**

- Spring steel

**Finish:**

- Zinc-plated



### GIRDER CLIPS - ZINC-PLATED RANGE

Code	Description	Packing	MOQ	Ctn
FGC-10020	Girder Clip - 16-20mm	100 / Jar	1 Jar	15
FGC-10030	Girder Clip - 25-32mm	100 / Jar	1 Jar	8

# CABLE CLIPS

## NAIL IN

### FEATURES & BENEFITS

- Moulded cable grips
- Snug fit on all leading cable brands
- Comprehensive range of packaging options
- High quality jar/crate.

### SPECIFICATIONS

#### Material:

- Clip - Impact resistant PE
- Nail - Zinc plated hardened steel (Rockwell 47 hardness)



### CABLE CLIPS - NAIL IN RANGE

Code	Description	Packing	MOQ	Ctn
FCC-1.5/500J	10mm 1.5mm <sup>2</sup> 2 core + E	500/Jar	1 Jar	24
FCC-2.5/500J	12mm 2.5mm <sup>2</sup> 2 core + E	500/Jar	1 Jar	18
FCC-1.5/1000B	10mm 1.5mm <sup>2</sup> 2 core + E	1000/Bag	1 Bag	16
FCC-2.5/1000B	12mm 2.5mm <sup>2</sup> 2 core + E	1000/Bag	1 Bag	10
FCC-1.5/5000	10mm 1.5mm <sup>2</sup> 2 core + E	5000/Crate	1 Crate	1
FCC-2.5/5000	12mm 2.5mm <sup>2</sup> 2 core + E	5000/Crate	1 Crate	1
FCC-1.5/10000	10mm 1.5mm <sup>2</sup> 2 core + E	10000/Crate	1 Crate	1
FCC-2.5/10000	12mm 2.5mm <sup>2</sup> 2 core + E	10000/Crate	1 Crate	1
FCC-6.OR/100B	6mm Coax Cable Black	100/Box	1 Box	185
FCC-42000	Plastic crate 32l (empty)	1 Crate	1 Crate	1
FCC-42002	Plastic crate 15l (empty)	1 Crate	1 Crate	1



## STAINLESS STEEL

### SOLAR APPLICATIONS

#### FEATURES & BENEFITS

- 304 stainless steel for long lasting durability
- Large gripping barbs
- Snug fit to prevent cable damage
- Easy to install and remove
- Reusable cable management design
- Slimline design for cleaner aesthetic appeal
- Suits 2x4.0mm cable (solar/DC).

CLIP-M4X2/SS



CLIP-M4X2/SS-RA



CLIP-M4X4/SS



#### CABLE CLIPS - STAINLESS STEEL RANGE

Code	Description	Packing	MOQ	Ctn
CLIP-M4X2/SS	Solar Cable Clip S/S 2x4.0mm	100 / Pack	1 Pack	4000
CLIP-M4X2/SS-RA	Solar Cable Clip S/S 2x4.0mm - Right Angle	100 / Pack	1 Pack	4000
CLIP-M4X4/SS	Solar Cable Clip S/S 4x4.0mm	50 / Pack	1 Pack	2000

# CABLE TIES

## NYLON

**PREMIUM  
GRADE**

### FEATURES & BENEFITS

- Bent tip allows for easier pick up, insertion and pull-up
- Smooth rounded edges, for safe handling
- Closely spaced locking teeth permit fine adjustment
- No metal parts (head and pawl are integrally moulded)
- Material sourced from the USA
- RoHS compliant
- Low smoke - Halogen free
- Other sizes available on project request.

### SPECIFICATIONS

**Material:**

- Nylon 66

**Temperature rating:**

- -40°C to 80°C

**Flammability:**

- U.L. 94V-2

**UV stability:**

- Conforms to ASTM-D-4066 (black only)



### CABLE TIES - NYLON RANGE

Code	Size	Colour	Min Ø	Max Ø	Rated Load	Packing	MOQ	Ctn
NCT-100/25B	100 x 2.5mm	Black	3mm	21mm	8kg	100/Pack	1 Pack	500
NCT-100/25N	100 x 2.5mm	Natural	3mm	21mm	8kg	100/Pack	1 Pack	500
NCT-150/32B	150 x 3.2mm	Black	3mm	32mm	18kg	100/Pack	1 Pack	200
NCT-150/32B/1000	150 x 3.2mm	Black	3mm	32mm	18kg	1000/Pack	1 Pack	20
NCT-150/32N	150 x 3.2mm	Natural	3mm	32mm	18kg	100/Pack	1 Pack	200
NCT-200/48B	200 x 4.8mm	Black	3mm	50mm	22kg	100/Pack	1 Pack	100
NCT-200/48B/1000	200 x 4.8mm	Black	3mm	50mm	22kg	1000/Pack	1 Pack	10
NCT-200/48N	200 x 4.8mm	Natural	3mm	50mm	22kg	100/Pack	1 Pack	100
NCT-200/48N/1000	200 x 4.8mm	Natural	3mm	50mm	22kg	1000/Pack	1 Pack	10
NCT-250/48B	250 x 4.8mm	Black	3mm	65mm	22kg	100/Pack	1 Pack	100
NCT-250/48B/1000	250 x 4.8mm	Black	3mm	65mm	22kg	1000/Pack	1 Pack	10
NCT-300/48B	300 x 4.8mm	Black	3mm	81mm	22kg	100/Pack	1 Pack	80
NCT-300/48B/1000	300 x 4.8mm	Black	3mm	81mm	22kg	1000/Pack	1 Pack	8
NCT-300/48N	300 x 4.8mm	Natural	3mm	81mm	22kg	100/Pack	1 Pack	80
NCT-300/48N/1000	300 x 4.8mm	Natural	3mm	81mm	22kg	1000/Pack	1 Pack	8
NCT-300/76B	300 x 7.6mm	Black	6mm	81 mm	55kg	100/Pack	1 Pack	50
NCT-370/48B	370 x 4.8mm	Black	3mm	104mm	22kg	100/Pack	1 Pack	50
NCT-370/76B	370 x 7.6mm	Black	6mm	104mm	55kg	100/Pack	1 Pack	30
NCT-450/76B	450 x 7.6mm	Black	6mm	131mm	55kg	100/Pack	1 Pack	20
NCT-540/76B	540 x 7.6mm	Black	6mm	159mm	55kg	100/Pack	1 Pack	10
NCT-810/90B	810 x 9.0mm	Black	9mm	245mm	80kg	100/Pack	1 Pack	10
NCT-1220/90B	1220 x 9.0mm	Black	9mm	376mm	80kg	100/Pack	1 Pack	5

## 316 STAINLESS STEEL

**TENSIONING  
TOOL/GUN  
AVAILABLE  
- SEE PAGE 44**

### FEATURES & BENEFITS

- Stainless steel 'ball bearing' locking mechanism
- Rounded 'off-set' tip, to speed up insertion
- Smooth rounded edges, for safe handling
- Self-locking, for easier and faster installation compared with traditional restraint systems
- An efficient and effective way of securing cables or other materials in environmentally harsh and corrosive conditions
- Provides heavy duty and long-lasting cable bundling solution in comparison to nylon cable ties
- Suited to Solar, Commercial, Industrial, Mining, Marine and Infrastructure installations
- Also available with heavy duty polyester coating (see page 22)
- Excellent chemical resistance
- Non-flammable
- Excellent UV resistance
- 5 year warranty.

### SPECIFICATIONS

#### Material:

- Marine grade 316 stainless steel (non-magnetic)

#### Working temperature:

- -40°C to 110°C



### CABLE TIES - 316 STAINLESS STEEL RANGE

Code	Size	Rated Load (Kg)	Rated Load (Nm)	Packing	MOQ	Ctn
SCT-150/46SS	150x4.6mm	90	882	100/Pack	1 Pack	50
SCT-200/46SS	200x4.6mm	90	882	100/Pack	1 Pack	50
SCT-200/79SS	200x7.9mm	160	1569	100/Pack	1 Pack	25
SCT-260/46SS	260x4.6mm	90	882	100/Pack	1 Pack	50
SCT-290/46SS	290x4.6mm	90	882	100/Pack	1 Pack	25
SCT-360/46SS	360x4.6mm	90	882	100/Pack	1 Pack	25
SCT-360/79SS	360x7.9mm	160	1569	100/Pack	1 Pack	25
SCT-520/46SS	520x4.6mm	90	882	100/Pack	1 Pack	25
SCT-520/79SS	520x7.9mm	160	1569	100/Pack	1 Pack	10
SCT-520/12SS	520x12mm	235	2304	100/Pack	1 Pack	10
SCT-680/46SS	680x4.6mm	90	882	100/Pack	1 Pack	25

Other sizes available for project qty's.

# CABLE TIES

## COATED 316 STAINLESS STEEL

**TENSIONING TOOL/GUN AVAILABLE - SEE PAGE 44**

### FEATURES & BENEFITS

- Stainless steel 'ball bearing' locking mechanism
- Rounded 'off-set' tip, to speed up insertion
- Smooth rounded edges, for safe handling
- Self-locking, for easier and faster installation compared with traditional restraint systems
- An efficient and effective way of securing cables or other materials in environmentally harsh and corrosive conditions
- Provides heavy duty and long-lasting cable bundling solution in comparison to nylon cable ties
- Suited to Solar, Commercial, Industrial, Mining, Marine and Infrastructure installations
- Excellent chemical resistance
- Non flammable
- Excellent UV resistance
- 5 year warranty.

### SPECIFICATIONS

#### Material:

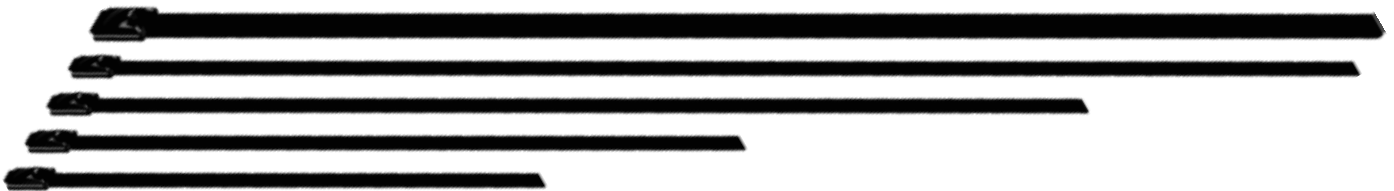
- Marine grade 316 stainless steel (non-magnetic)

#### Coating:

- Polyester/epoxy proprietary blend

#### Working temperature:

- -40°C to 110°C



### CABLE TIES - COATED 316 STAINLESS STEEL RANGE

Code	Size	Rated Load (Kg)	Rated Load (Nm)	Packing	MOQ	Ctn
CCT-150/46SS	150x4.6mm	45	441	100/Pack	1 Pack	50
CCT-200/46SS	200x4.6mm	45	441	100/Pack	1 Pack	50
CCT-260/46SS	260x4.6mm	45	441	100/Pack	1 Pack	25
CCT-290/46SS	290x4.6mm	45	441	100/Pack	1 Pack	25
CCT-360/46SS	360x4.6mm	45	441	100/Pack	1 Pack	25
CCT-360/79SS	360x7.9mm	80	784	100/Pack	1 Pack	25

Other sizes available for project qty's.

## NYLON WITH STAINLESS STEEL PAWL

**PREMIUM  
S/S PAWL**

### FEATURES & BENEFITS

- Stainless steel pawl for added longevity
- Smooth rounded edges, for safe handling
- Closely spaced teeth permit fine adjustment
- Material made in the USA
- RoHS compliant
- Other sizes available on request
- Low smoke - Halogen free.

### SPECIFICATIONS

**Material:**

- Nylon 66 with stainless steel pawl

**Humidity Absorption:**

- UL 94 - V2

**Operating Temperature:**

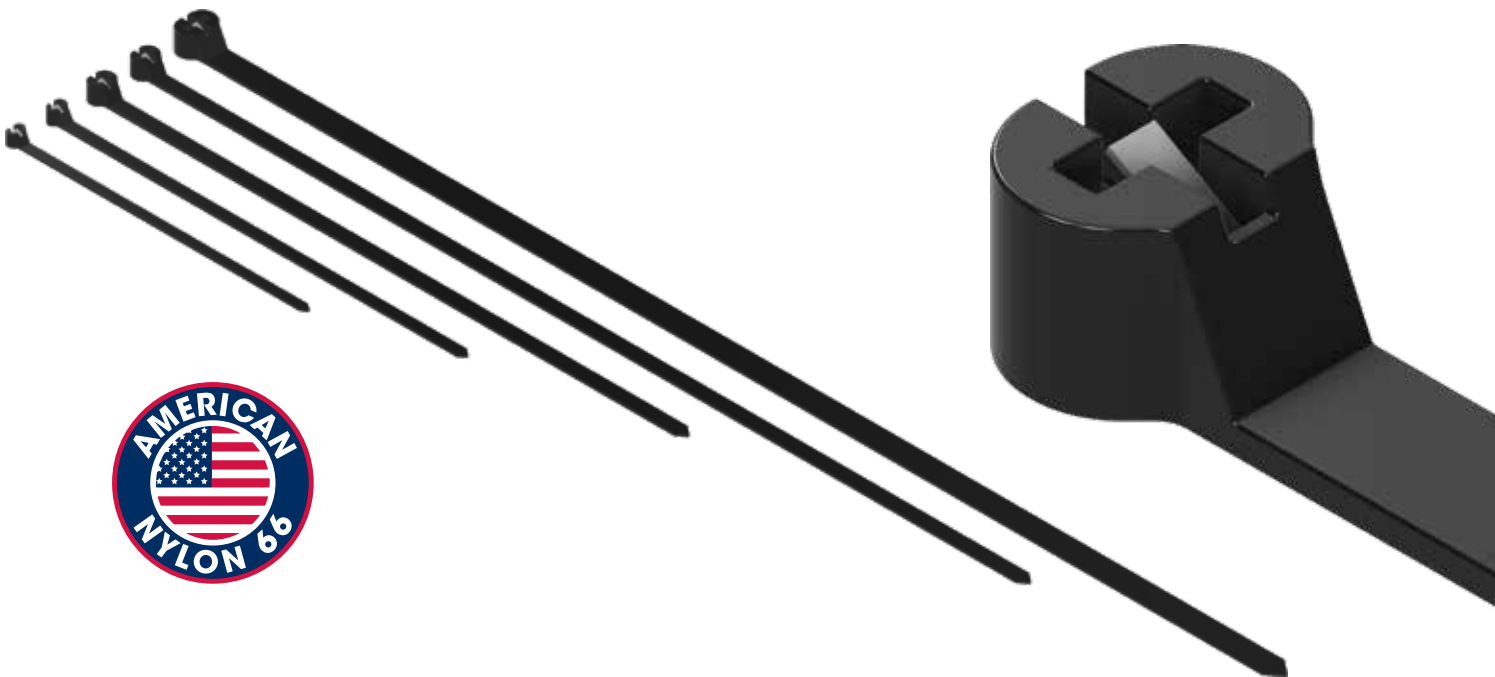
- -40°C to 85°C

**Min Installation Temperature:**

- -10°C

**UV Stability:**

- Conforms to ASTM-D-4066



### CABLE TIES - NYLON WITH STAINLESS STEEL PAWL RANGE

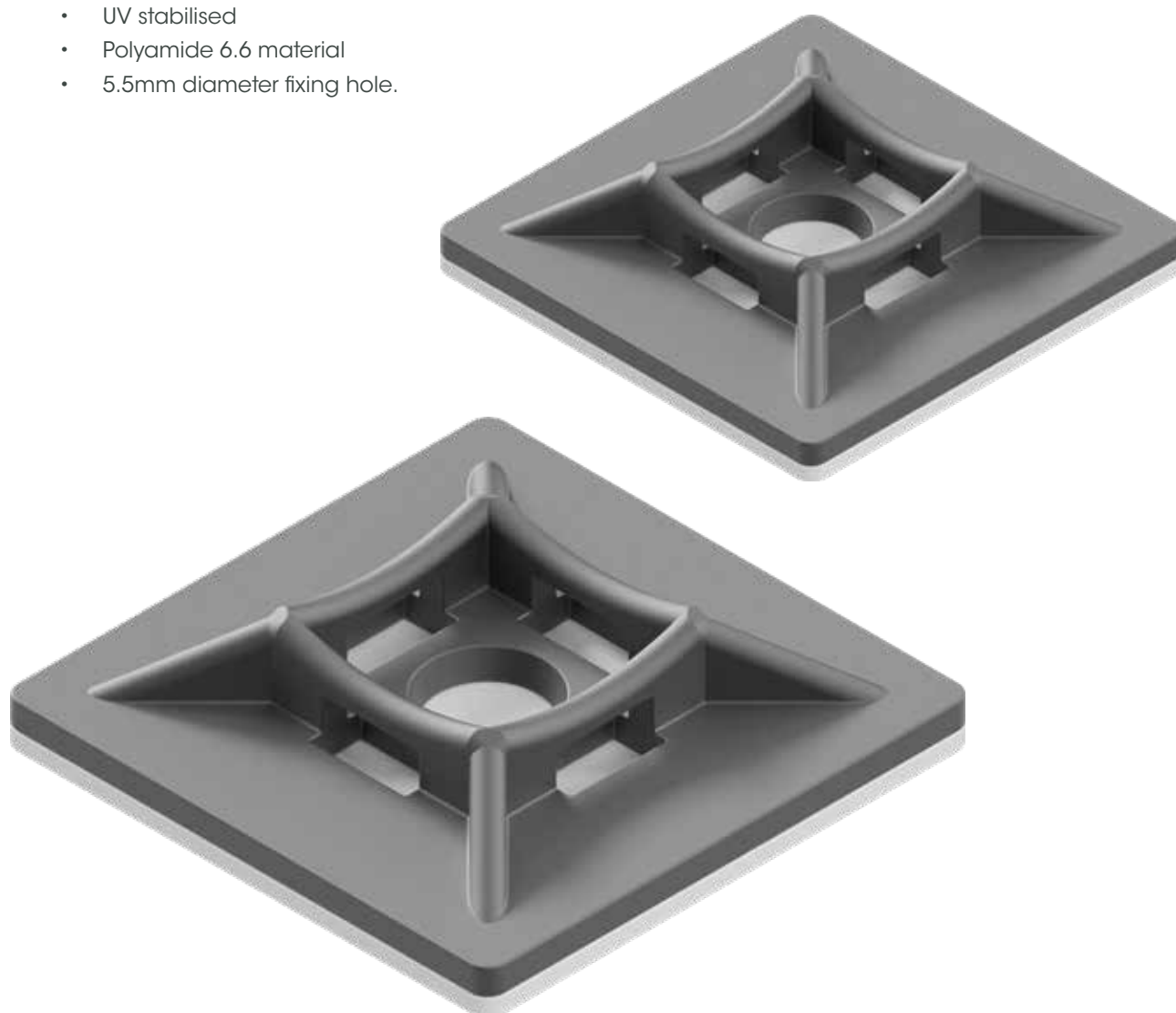
Code	Size	Rated Load	Packing	MOQ	Ctn
SPCT-100/30B	100 x 3.0mm	8kg	100/pack	1 Pack	500
SPCT-200/48B	200 x 4.8mm	22kg	100/pack	1 Pack	100
SPCT-300/36B	300 x 3.6mm	18kg	100/pack	1 Pack	100
SPCT-370/48B	370 x 4.8mm	22kg	100/pack	1 Pack	50
SPCT-370/70B	370 x 7.0mm	54kg	100/pack	1 Pack	25

# CABLE TIE MOUNTS

## FEATURES & BENEFITS

- Low profile for slimline aesthetic purposes
- 4-way base for multiple entry options
- 3M backing tape for optimum durability
- Fixing hole provided
- UV stabilised
- Polyamide 6.6 material
- 5.5mm diameter fixing hole.

**3M**  
BACKING TAPE



## CABLE TIE MOUNTS RANGE

Code	Description	Packing	MOQ	Ctn
NCTM-M19B	Cable Tie Mount - 19x19mm Black	100 / Pack	1 Pack	200
NCTM-M28B	Cable Tie Mount - 28x28mm Black	100 / Pack	1 Pack	200

## RAINBOW / INSULATION

### FEATURES & BENEFITS

- High quality material
- Flame retardant and cold resistant
- High chemical resistance
- Excellent adhesion
- Excellent weatherability
- Individually wrapped rolls.

### SPECIFICATIONS

#### Mixed pack:

- 3 black, 2 red, 2 blue, 2 white & 1 green/yellow

#### Roll size:

- 20m x 19mm x 0.15mm

#### Temperature rating:

- -20°C to 80°C



### TAPE - INSULATION RANGE

Code	Description	Packing	MOQ	Ctn
TAPE-B/10PK	Electrical Tape - 20m x 19mm x 0.15mm - Black	1 Pack/10 Rolls	1 Pack	20 Packs
TAPE-W/10PK	Electrical Tape - 20m x 19mm x 0.15mm - White	1 Pack/10 Rolls	1 Pack	20 Packs
TAPE-MIX/10PK	Electrical Tape - 20m x 19mm x 0.15mm - Mixed	1 Pack/10 Rolls	1 Pack	20 Packs

# TAPE

## DUCT / JOINING & SEALING

### FEATURES & BENEFITS

- High quality material
- Flame retardant and cold resistant
- High chemical resistance
- Excellent adhesion
- Excellent weatherability
- Individually wrapped rolls.

### SPECIFICATIONS

#### Roll size:

- 30m x 48mm x 0.13mm

#### Temperature rating:

- -20°C to 80°C



### TAPE - DUCT

Code	Description	Packing	MOQ	Ctn
TAPE-DUCT/B	Black 30m x 48mm x 0.13mm	1	1	40
TAPE-DUCT/G	Grey 30m x 48mm x 0.13mm	1	1	40



## UNDERGROUND WARNING

### FEATURES & BENEFITS

- High quality material
- Environmentally safe
- Acid and alkaline resistant
- Excellent tear resistance.

### SPECIFICATIONS

**Type:**

- Non-detectable

**Material:**

- Lead free, low density polyethylene plastic film

**Certification:**

- AS/NZS 2648:1995

**Width:**

- 150mm



### TAPE - UNDERGROUND WARNING RANGE

Code	Description	Packing	MOQ	Ctn
TAPE-WARN/100-E	Underground Warning Tape - 100m Electrical ORG	1	1	6
TAPE-WARN/500-E	Underground Warning Tape - 500m Electrical ORG	1	1	2
TAPE-WARN/100-C	Underground Warning Tape - 100m Comms WHT	1	1	6
TAPE-WARN/500-C	Underground Warning Tape - 500m Comms WHT	1	1	2

# JUNCTION BOXES

## FEATURES & BENEFITS - STANDARD & LARGE

- Excellent finish and fit
- Includes 3x single screw connectors and 1x double screw cable connector.

## SPECIFICATIONS - STANDARD & LARGE

### Material:

- ABS

### Amp rating:

- 32Amps

## FEATURES & BENEFITS - ADAPTABLE

- O-ring IP65 weatherproof seal
- Heavy duty design.

## SPECIFICATIONS - ADAPTABLE

### Material:

- Base & cover - Polycarbonate
- Screws - Stainless steel

### Weatherproof rating:

- IP65



## DIMENSIONS

Code	Height (mm)	Width (mm)	Depth (mm)
FJB-10000	70	70	37
FJB-20000	100	70	45
FEB-10115	80	80	55

## JUNCTION BOXES RANGE

Code	Description	Packing	MOQ	Ctn
FJB-10000	Junction Box - Standard	10	10	100
FJB-20000	Junction Box - Large	10	10	100
FEB-10115	Junction Box - Adaptable	1	1	100

# SNAP BUSHINGS

## NYLON

### FEATURES & BENEFITS

- Protects electrical cables through holes in sheet metal
- Locks into hole firmly with fingertip pressure
- UL approved
- Halogen free.

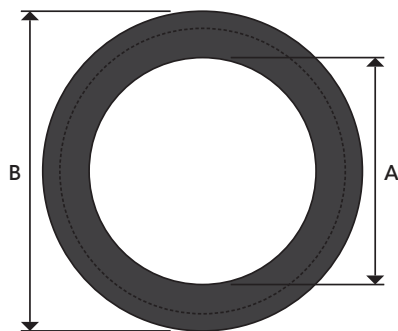
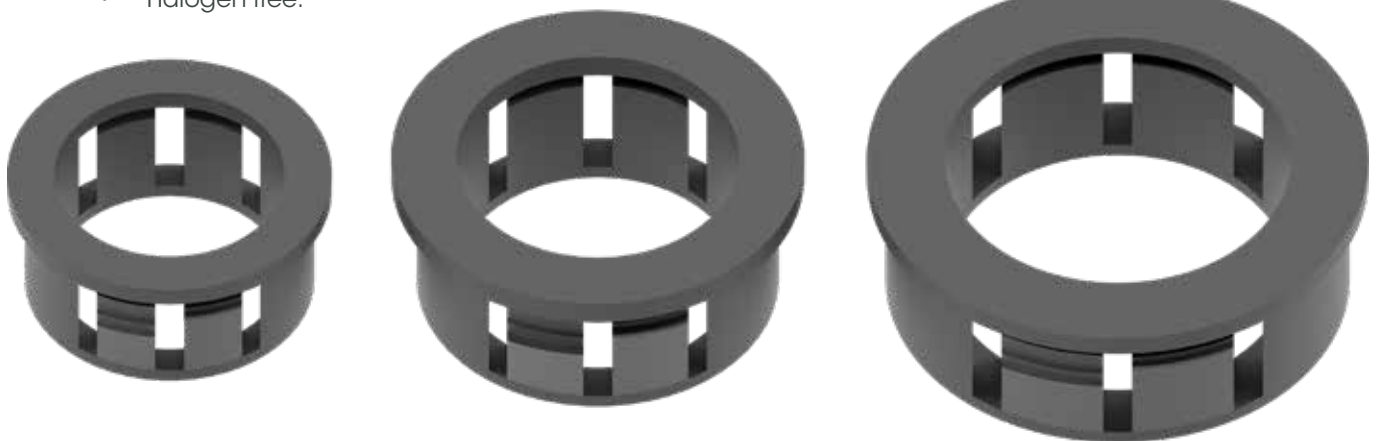
### SPECIFICATIONS

**Material:**

- Nylon 66

**Flammability:**

- 94 V-2



### DIMENSIONS

Code	Mounting Hole (mm)	A (mm)	B (mm)	C (mm)	D (mm)
BUSH-M20/S	20	15.9	22.4	10	1.4
BUSH-M25/S	25.4	19.5	28.5	11.7	1.8
BUSH-M32/S	32	23.8	34.6	11.4	1.5
BUSH-M38/S	38.1	29	42.1	11.4	1.5
BUSH-M50/S	50.8	41.6	54.6	11.8	1.56

### SANP BUSINGS - NYLON RANGE

Code	Description	Packing	MOQ	Ctn
BUSH-M20/S	Snap Bushing - Nylon 20mm Black	100	100	9500
BUSH-M25/S	Snap Bushing - Nylon 25mm Black	100	100	5500
BUSH-M32/S	Snap Bushing - Nylon 32mm Black	100	100	3500
BUSH-M38/S	Snap Bushing - Nylon 38mm Black	100	100	TBA
BUSH-M50/S	Snap Bushing - Nylon 50mm Black	100	100	TBA

# CORRUGATED CONDUIT

## FEATURES & BENEFITS

- Highly flexible | Heavy duty PVC
- Metre marked - easy measure
- High impact strength | Crush resistant
- Flame retardant | Self-extinguishing
- Extreme UV Resistant .

## PACKED DETAILS

Size: 47 x 47 x 24cm  
 Weight: 8kg  
 QTY/pallet 25

## SPECIFICATIONS

Size / length: 25mm x 50m  
 Material: U-PVC  
 Self-extinguishing  
 Flame retardant  
 Ingress protection (IP): IP66  
 Resistance to compression: Min 1250Nt / 5cm  
 Complies to: AS/NZS 2053.5:2001  
 AS/NZS 5033:2012  
 Colour: Grey  
 Minimum inside diameter: 18mm  
 Outside diameter: 24.8 - 25mm  
 Temp. range: -5°C to +60°C



## CORRUGATED CONDUIT

Code	Description	Packing	MOQ	Ctn
CC-M25/50M-PV	Corrugated Conduit Solar HD 25mm x 50m	1	1	25/pallet

# CONDUIT FITTINGS

## PVC

### FEATURES & BENEFITS

- Manufactured according to AS/NZS 2053 Standard
- Stainless steel screws used on all inspection products and junction boxes (tees, elbows and junction boxes)
- Snug fit on conduit tubing
- Heavy duty construction
- Comprehensive range.

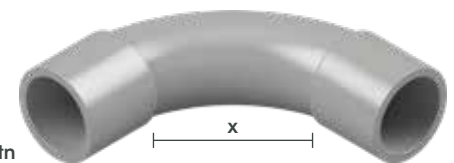
### SCREW ADAPTORS

Code	Description	Pack-	MOQ	Ctn
ADAP-20G/PS	Screw Adaptor - 20mm - Grey - Plain/Screw	50	50	1000
ADAP-25G/PS	Screw Adaptor - 25mm - Grey - Plain/Screw	50	50	1000
ADAP-32G/PS	Screw Adaptor - 32mm - Grey - Plain/Screw	50	50	500
ADAP-40G/PS	Screw Adaptor - 40mm - Grey - Plain/Screw	20	20	400
ADAP-50G/PS	Screw Adaptor - 50mm - Grey - Plain/Screw	10	10	100



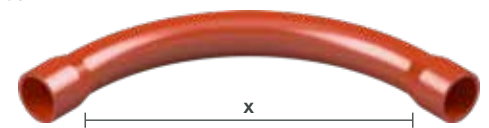
### 90° STANDARD BENDS

Code	Description	x (mm)	Packing	MOQ	Ctn
BEND-20G/STD	90° Standard Bend - 20mm - Grey	66	50	50	500
BEND-25G/STD	90° Standard Bend - 25mm - Grey	87	20	20	200
BEND-32G/STD	90° Standard Bend - 32mm - Grey	165	10	10	200
BEND-40G/STD	90° Standard Bend - 40mm - Grey	170	1	1	65
BEND-50G/STD	90° Standard Bend - 50mm - Grey	223	1	1	30



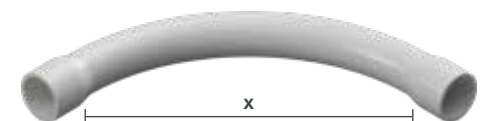
### 90° SWEEP BENDS

Code	Description	x (mm)	Packing	MOQ	Ctn
BEND-20/SWP	90° Sweep Bend - 20mm - Orange - (HD)	165	1	1	250
BEND-25/SWP	90° Sweep Bend - 25mm - Orange - (HD)	215	1	1	250
BEND-32/SWP	90° Sweep Bend - 32mm - Orange - (HD)	275	1	1	70
BEND-40/SWP	90° Sweep Bend - 40mm - Orange - (HD)	385	1	1	60
BEND-50/SWP	90° Sweep Bend - 50mm - Orange - (HD)	460	1	1	32



### 90° COMMUNICATION BENDS

Code	Description	x (mm)	Packing	MOQ	Ctn
BEND-25/COMM	Communication Bend 90° PVC 25mm White	TBA	1	1	250
BEND-32/COMM	Communication Bend 90° PVC 32mm White	TBA	1	1	70



# CONDUIT FITTINGS

PVC

## CONDUIT CLIPS

Code	Description	Packing	MOQ	Ctn
CLIP-20G/PVC	Conduit Clip - 20mm - Grey	100	100	2000
CLIP-25G/PVC	Conduit Clip - 25mm - Grey	100	100	2000
CLIP-32G/PVC	Conduit Clip - 32mm - Grey	50	50	1000



## PLAIN COUPLINGS

Code	Description	Packing	MOQ	Ctn
COUP-20G	Plain Coupling - 20mm - Grey	50	50	1000
COUP-25G	Plain Coupling - 25mm - Grey	50	50	1000
COUP-32G	Plain Coupling - 32mm - Grey	20	20	400
COUP-40G	Plain Coupling - 40mm - Grey	1	1	400
COUP-50G	Plain Coupling - 50mm - Grey	1	1	200
COUP-63G	Plain Coupling - 63mm - Grey	1	1	66



## PLAIN/SCREW COUPLINGS

Code	Description	Packing	MOQ	Ctn
COUP-20G/PS	Plain/Screw Coupling - 20mm - Grey	50	50	1000
COUP-25G/PS	Plain/Screw Coupling - 25mm - Grey	50	50	1000
COUP-32G/PS	Plain/Screw Coupling - 32mm - Grey	50	50	1000
COUP-40G/PS	Plain/Screw Coupling - 40mm - Grey	5	5	300
COUP-50G/PS	Plain/Screw Coupling - 50mm - Grey	5	5	200



## SOLID ELBOWS

Code	Description	Packing	MOQ	Ctn
ELB-20G	Solid Elbow - 20mm - Grey	20	20	400
ELB-25G	Solid Elbow - 25mm - Grey	20	20	400



## RIGHT ANGLE ELBOWS

Code	Description	Packing	MOQ	Ctn
ELB-20G/RA	Right Angle Elbow - 20mm - Grey	20	20	800
ELB-25G/RA	Right Angle Elbow - 25mm - Grey	20	20	400



## INSPECTION ELBOWS

Code	Description	Packing	MOQ	Ctn
ELB-20G/IN	Inspection Elbow - 20mm - Grey	20	20	400
ELB-25G/IN	Inspection Elbow - 25mm - Grey	20	20	400
ELB-32G/IN	Inspection Elbow - 32mm - Grey	10	10	200



## PVC

### LOCATING FLANGES

Code	Description	Packing	MOQ	Ctn
FLAN-20/LOC	Locating Flange - 20mm - Orange	10	10	200
FLAN-25/LOC	Locating Flange - 25mm - Orange	10	10	200
FLAN-32/LOC	Locating Flange - 32mm - Orange	10	10	200



### PLASTIC SADDLES

Code	Description	Packing	MOQ	Ctn
FS-20G/PVC	Plastic Saddle - 20mm - Full - Grey	100	100	2000
FS-25G/PVC	Plastic Saddle - 25mm - Full - Grey	100	100	2000
FS-32G/PVC	Plastic Saddle - 32mm - Full - Grey	50	50	1000



### CORRUGATED GLANDS

Code	Description	Packing	MOQ	Ctn
GLA-20G/COR	Corrugated Glands - 20mm - Grey	50	50	1000
GLA-25G/COR	Corrugated Glands - 25mm - Grey	50	50	500
GLA-32G/COR	Corrugated Glands - 32mm - Grey	20	20	400



### DISPOSABLE LIDS

Code	Description	Packing	MOQ	Ctn
LID-25/DISP	Disposable Lid - Orange	20	20	400



### END PLUG - PLAIN

Code	Description	Packing	MOQ	Ctn
PLG-20G/P	Conduit End Plug Plain 20mm Grey	100	100	1000
PLG-25G/P	Conduit End Plug Plain 25mm Grey	100	100	1000



### PLAIN REDUCERS

Code	Description	Packing	MOQ	Ctn
RED-20/16G/PL	Plain Reducer - 20/16mm - Grey	50	50	1000
RED-25/20G/PL	Plain Reducer - 25/20mm - Grey	50	50	1000
RED-32/25G/PL	Plain Reducer - 32/25mm - Grey	50	50	1000
RED-40/32G/PL	Plain Reducer - 40/32mm - Grey	20	20	400
RED-50/40G/PL	Plain Reducer - 50/40mm - Grey	20	20	400



# CONDUIT FITTINGS

## PVC

### STEPPED REDUCERS

Code	Description	Packing	MOQ	Ctn
RED-25/20G/ST	Stepped Reducer 25/20mm Grey	50	50	1000
RED-32/25G/ST	Stepped Reducer 32/25mm Grey	50	50	1000



### THREADED REDUCERS

Code	Description	Packing	MOQ	Ctn
RED-25/20G/TH	Threaded Reducer - 25/20mm - Grey	50	50	1000
RED-32/25G/TH	Threaded Reducer - 32/25mm - Grey	50	50	1000
RED-40/32G/TH	Threaded Reducer - 40/32mm - Grey	20	20	400
RED-50/40G/TH	Threaded Reducer - 50/40mm - Grey	20	20	400



### EXTENSION RINGS

Code	Description	Packing	MOQ	Ctn
RING-25G/EX	Extension Ring - 25mm - Grey	20	20	200



### STRAIGHT TEES

Code	Description	Packing	MOQ	Ctn
TEE-20G	Straight Tee - 20mm - Grey	20	20	400
TEE-25G	Straight Tee - 25mm - Grey	20	20	400



### INSPECTION TEES

Code	Description	Packing	MOQ	Ctn
TEE-20G/IN	Inspection Tee - 20mm - Grey	20	20	400
TEE-25G/IN	Inspection Tee - 25mm - Grey	10	10	200
TEE-32G/IN	Inspection Tee - 32mm - Grey	5	5	50



### 1-WAY SHALLOW JUNCTION BOXES

Code	Description	Packing	MOQ	Ctn
JBS-20G/1	1 Way Shallow J-Box - 20mm - Grey	10	10	100
JBS-25G/1	1 Way Shallow J-Box - 25mm - Grey	10	10	100





## PVC

### 2-WAY STRAIGHT SHALLOW JUNCTION BOXES

Code	Description	Packing	MOQ	Ctn
JBS-20G/2	2 Way Straight Shallow J-Box - 20mm - Grey	10	10	100
JBS-25G/2	2 Way Straight Shallow J-Box - 25mm - Grey	10	10	100



### 2-WAY ANGLE SHALLOW JUNCTION BOXES

Code	Description	Packing	MOQ	Ctn
JBS-20G/2A	2 Way Angle Shallow J-Box - 20mm - Grey	10	10	100
JBS-25G/2A	2 Way Angle Shallow J-Box - 25mm - Grey	10	10	100



### 2-WAY 'U' TYPE SHALLOW JUNCTION BOXES

Code	Description	Packing	MOQ	Ctn
JBS-20G/2U	2 Way U Type Shallow J-Box - 20mm - Grey	10	10	100
JBS-25G/2U	2 Way U Type Shallow J-Box - 25mm - Grey	10	10	100



### 3-WAY SHALLOW JUNCTION BOXES

Code	Description	Packing	MOQ	Ctn
JBS-20G/3	3 Way Shallow J-Box - 20mm - Grey	10	10	100
JBS-25G/3	3 Way Shallow J-Box - 25mm - Grey	10	10	100



### 3-WAY 'Y' TYPE SHALLOW JUNCTION BOXES

Code	Description	Packing	MOQ	Ctn
JBS-20G/3Y	3 Way Y Type Shallow J-Box - 20mm - Grey	10	10	100
JBS-25G/3Y	3 Way Y Type Shallow J-Box - 25mm - Grey	10	10	100



### 4-WAY SHALLOW JUNCTION BOXES

Code	Description	Packing	MOQ	Ctn
JBS-20G/4	4 Way Shallow J-Box - 20mm - Grey	10	10	100
JBS-25G/4	4 Way Shallow J-Box - 25mm - Grey	10	10	100



# CONDUIT FITTINGS

PVC

## 4-WAY 'H' TYPE SHALLOW JUNCTION BOXES

Code	Description	Packing	MOQ	Ctn
JBS-20G/4H	4 Way H Type Shallow J-Box - 20mm - Grey	10	10	100
JBS-25G/4H	4 Way H Type Shallow J-Box - 25mm - Grey	10	10	100



## 1-WAY DEEP JUNCTION BOXES

Code	Description	Packing	MOQ	Ctn
JBD-20G/1	1 Way Deep J-Box - 20mm - Grey	10	10	100
JBD-25G/1	1 Way Deep J-Box - 25mm - Grey	10	10	100



## 2-WAY DEEP JUNCTION BOXES

Code	Description	Packing	MOQ	Ctn
JBD-20G/2	2 Way Deep J-Box - 20mm - Grey	10	10	100
JBD-25G/2	2 Way Deep J-Box - 25mm - Grey	10	10	100



## 2-WAY ANGLE DEEP JUNCTION BOXES

Code	Description	Packing	MOQ	Ctn
JBD-20G/2A	2 Way Angle Deep J-Box - 20mm - Grey	10	10	100
JBD-25G/2A	2 Way Angle Deep J-Box - 25mm - Grey	10	10	100



## 2-WAY 'U' TYPE DEEP JUNCTION BOXES

Code	Description	Packing	MOQ	Ctn
JBD-20G/2U	2 Way U Type Deep J-Box - 20mm - Grey	10	10	100
JBD-25G/2U	2 Way U Type Deep J-Box - 25mm - Grey	10	10	100



## 3-WAY DEEP JUNCTION BOXES

Code	Description	Packing	MOQ	Ctn
JBD-20G/3	3 Way Deep J-Box - 20mm - Grey	10	10	100
JBD-25G/3	3 Way Deep J-Box - 25mm - Grey	10	10	100



## PVC

### 3-WAY 'Y' TYPE DEEP JUNCTION BOXES

Code	Description	Packing	MOQ	Ctn
JBD-20G/3Y	3 Way U Type Deep J-Box - 20mm - Grey	10	10	100
JBD-25G/3Y	3 Way U Type Deep J-Box - 25mm - Grey	10	10	100



### 4-WAY DEEP JUNCTION BOXES

Code	Description	Packing	MOQ	Ctn
JBD-20G/4	4 Way Deep J-Box - 20mm - Grey	10	10	100
JBD-25G/4	4 Way Deep J-Box - 25mm - Grey	10	10	100



### 4-WAY 'H' TYPE DEEP JUNCTION BOXES

Code	Description	Packing	MOQ	Ctn
JBD-20G/4H	4 Way H Type Deep J-Box - 20mm - Grey	10	10	100
JBD-25G/4H	4 Way H Type Deep J-Box - 25mm - Grey	10	10	100





# HARDWARE





<b>HOLESAWS - HEAVY DUTY MILLED CARBIDE</b>	38
<b>JACK CHAIN &amp; DIN RAIL</b>	39
<b>METAL ENCLOSURES - SS &amp; MILD STEEL</b>	40
<b>PLASTER &amp; MOUNTING BRACKETS</b>	41
<b>CATENARY WIRE</b>	42
<b>CATENARY WIRE ACCESSORIES</b>	43
<b>TENSIONING TOOLS - CABLE TIES</b>	44
<b>WALL BOXES - FIRE RATED</b>	45
<b>ROOF PENETRATION SEALS</b>	46

# HOLESAWS

## HEAVY DUTY

### FEATURES & BENEFITS

- Complete with removable arbor
- Supplied with allen key
- Packaged in reusable plastic cases
- Cutters and arbors are interchangeable with other brands
- Comprehensive range.

### SPECIFICATIONS

#### Material

- Cutter - HSS (16-75mm),  
Milled carbide (93mm)



### HOLESAWS - HEAVY DUTY RANGE

Code	Description	Packing	MOQ	Ctn
FTL-10101	Heavy Duty Holesaw - 16mm	10	1	240
FTL-10102	Heavy Duty Holesaw - 18mm	10	1	240
FTL-10103	Heavy Duty Holesaw - 20mm	10	1	240
FTL-10105	Heavy Duty Holesaw - 22mm	10	1	240
FTL-10113	Heavy Duty Holesaw - 23mm	10	1	240
FTL-10106	Heavy Duty Holesaw - 25mm	10	1	240
FTL-10114	Heavy Duty Holesaw - 29mm	10	1	120
FTL-10107	Heavy Duty Holesaw - 32mm	10	1	120
FTL-10108	Heavy Duty Holesaw - 40mm	10	1	100
FTL-10109	Heavy Duty Holesaw - 50mm	10	1	50
FTL-10110	Heavy Duty Holesaw - 63mm	1	1	50
FTL-10111	Heavy Duty Holesaw - 75mm	1	1	50
FTL-10112	Heavy Duty Holesaw - 93mm	1	1	30
FTL-BIT	Drill Bit Pilot to suite Holesaws 16-75mm	10	10	300

**STAINLESS  
STEEL  
AVAILABLE**

## JACK CHAIN

### FEATURES & BENEFITS

- Single link
- Weldless twisted links
- Packaged in heavy duty buckets for easy handling.

### SPECIFICATIONS

**Material:**

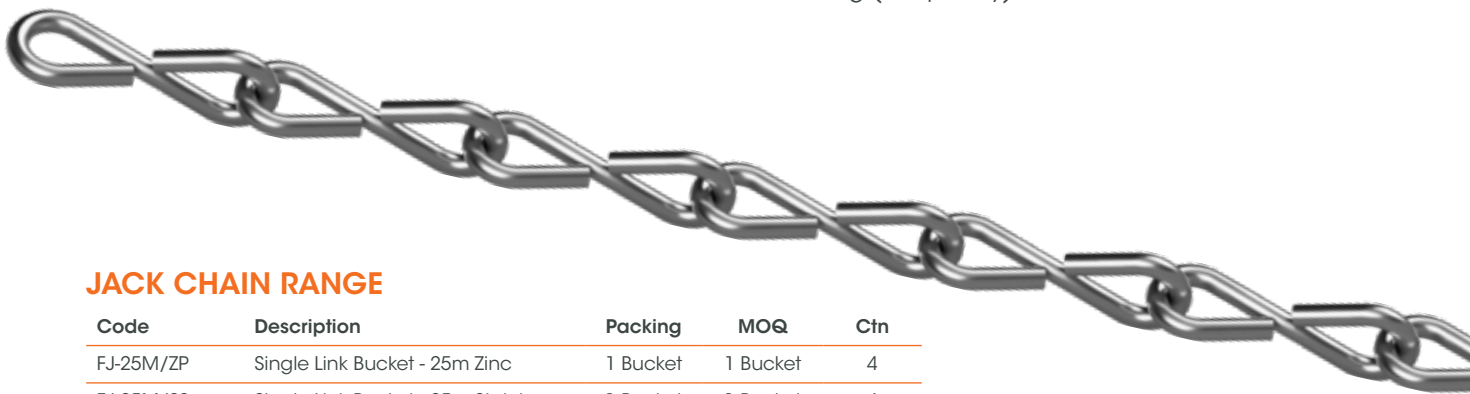
- Zinc-plated steel and stainless steel

**Wire thickness:**

- 2.5mm

**Load rating:**

- 5kg (temporary)



### JACK CHAIN RANGE

Code	Description	Packing	MOQ	Ctn
FJ-25M/ZP	Single Link Bucket - 25m Zinc	1 Bucket	1 Bucket	4
FJ-25M/SS	Single Link Bucket - 25m Stainless	1 Bucket	1 Bucket	4

## DIN RAIL

### SPECIFICATIONS

**Material:**

- Steel (cold rolled)

**Finish:**

- Zinc coated and yellow passivated

**Slot size:**

- 18mm x 6.3mm @ 25mm centres.



### DIN RAIL RANGE

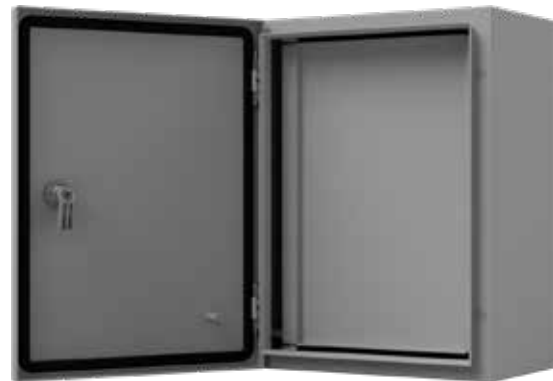
Code	Description	Packing	MOQ	Ctn
DR-7.5x35S/1M	Steel - 7.5mm x 35mm - Slotted - 1 Metre	2	2	50

# METAL ENCLOSURES

## S/S & MILD STEEL ZINC PLATED

### FEATURES & BENEFITS

- Cable entry plate with gasket included
- Mounting plate included
- Other sizes available on request
- Heavy duty industrial design
- Fully welded construction
- Comprehensive range.



### SPECIFICATIONS

**Material:** Zinc plated steel and 316 stainless steel options

**Colour:** Epoxy polyester powder coated RAL7035 colour or 316 stainless

**Weatherproof rating:** IP66

**Impact rating:** IK10

Abbreviation	Term
ND	Non-Drilled
NID	No Inner Door
IDND	Inner Door, Non-Drilled
ID	Inner Door
SPD	Strobe Pre-Drilled
IDSPD	Inner Door, Strobe Pre-Drilled

### METAL ENCLOSURES - SS & MILD STEEL RANGE

Code	Description	Packing	MOQ	Ctn
FEB-30321	Enclosure Mild Steel ND 300x200x150mm Grey	1	1	1
FEB-30331	Enclosure Mild Steel ND 300x300x150mm Grey	1	1	1
FEB-30331 /ZP	Enclosure Zinc-Plated Steel ND 300x200x150mm Grey	1	1	1
FEB-40431	Enclosure Mild Steel ND 400x300x150mm Grey	1	1	1
FEB-40432 /ZP	Enclosure Zinc-Plated Steel ND 400x300x200mm Grey	1	1	1
FEB-40442 /ZP	Enclosure Zinc-Plated Steel ND 400x400x200mm Grey	1	1	1
FEB-41432-SNB	Enclosure 316 S/S ID 400x300x200mm	1	1	1
FEB-41442-SNB	Enclosure 316 S/S ID 400x400x200mm	1	1	1
FEB-50552	Enclosure Mild Steel ID 500x500x200mm Grey	1	1	1
FEB-50553 /ZP	Enclosure Zinc-Plated Steel ID 500x500x300mm Grey	1	1	1
FEB-51553-SNB	Enclosure 316 S/S ID 500x500x300mm	1	1	1
FEB-53553	Enclosure Mild Steel NID 500x500x300mm Grey	1	1	1
FEB-606425	Enclosure Mild Steel ID 600x400x250mm Grey	1	1	1
FEB-60643 /ZP	Enclosure Zinc-Plated Steel ID 600x400x300mm Grey	1	1	1
FEB-60662 /ZP	Enclosure Zinc-Plated Steel ID 600x600x200mm Grey	1	1	1
FEB-60663	Enclosure Mild Steel ID 600x600x300mm Grey	1	1	1
FEB-60663 /ZP	Enclosure Zinc-Plated Steel ID 600x600x300mm Grey	1	1	1
FEB-61663-SNB	Enclosure 316 S/S ID 600x600x300mm	1	1	1
FEB-63663 /ZP	Enclosure Zinc-Plated Steel NID 600x600x300mm Grey	1	1	1
FEB-80863	Enclosure Mild Steel ID 800x600x300mm Grey	1	1	1
FEB-80863 /ZP	Enclosure Zinc-Plated Steel ID 600x600x300mm Grey	1	1	1
FEB-80884 /ZP	Enclosure Zinc-Plated Steel ID 800x800x400mm Grey	1	1	1
FEB-83863 /ZP	Enclosure Zinc-Plated Steel NID 800x600x300mm Grey	1	1	1



# PLASTER & MOUNTING BRACKETS

## FEATURES & BENEFITS

- Heavy duty construction
- Riveted screw inserts - Don't break free with corrosion (FPB-15030)
- Compatible with all leading brands of bakelite.

## SPECIFICATIONS

### Thickness:

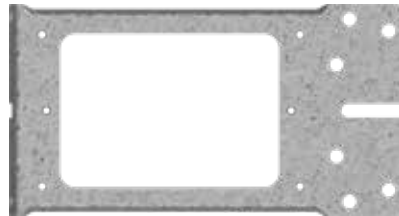
- 1mm

### Finish:

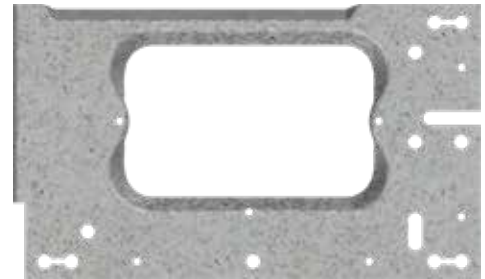
- Hot dipped galvanised



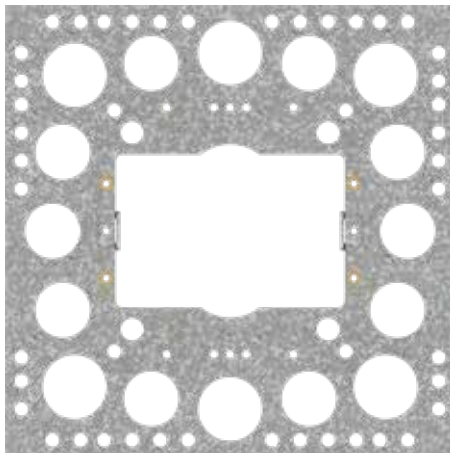
FPB-15000



FPB-15010



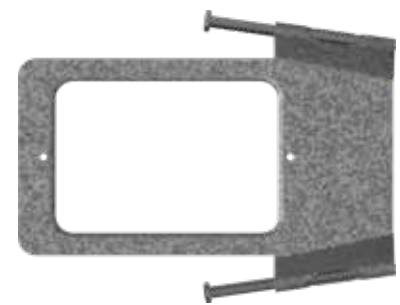
FPB-15020



FPB-15030



FPB-15050



FPB-15060

## PLASTER & MOUNTING BRACKETS RANGE

Code	Description	Packing	MOQ	Ctn
FPB-15000	Mounting Bracket - C Clip	25	25	500
FPB-15010	Mounting Bracket - Right Angle (Standard)	20	20	200
FPB-15020	Mounting Bracket - Right Angle (Large)	20	20	200
FPB-15030	Mounting Bracket - Square - Render	100	100	100
FPB-15050	Stud Bracket - Vertical Pre-Nailed	20	20	160
FPB-15060	Stud Bracket - Horizontal Pre-Nailed (Light Point)	20	20	200

# CATENARY WIRE

**GALVANISED WIRE**

## FEATURES & BENEFITS

- Highly robust poly reels
- Reels supplied in outer box for ease of storage and transportation
- Full range of accessories available
- Galvanised for durability.

## SPECIFICATIONS

### Material:

- High quality steel

### Finish:

- Galvanised

### Load rating:

- 1.6KN (FCW-12001), 3.3KN (FCW-12005)

### Drum hole size:

- 40mm

### Wire size:

- FCW-12001 - 2.6mm OD
- FCW-12005 - 4.0mm OD



## CATENARY WIRE RANGE

Code	Description	Packing	MOQ	Ctn
FCW-12001	Catenary Wire - 0.90 G 7 Strand - 180m Drum	1	1	150/pallet
FCW-12005	Catenary Wire - 1.25 G 7 Strand - 100m Drum	1	1	150/pallet

# CATENARY WIRE ACCESSORIES

## FEATURES & BENEFITS

- Heavy duty construction
- Comprehensive range
- Compatible with all leading brands of Catenary Wire.

## SPECIFICATIONS

### Material:

- Steel

### Finish:

- Electro-galvanised, zinc plated

## THIMBLES

Code	Description	Packing	MOQ	Ctn
CWA-M6/THM	Thimble - 6mm	10	10	500



## TURNBUCKLES

Code	Description	Packing	MOQ	Ctn
CWA-M6/TURN	Turnbuckles - 6mm Hook & Eye	10	10	250
CWA-M8/TURN	Turnbuckles - 8mm Hook & Eye	10	10	200



## 'D' SHACKLES

Code	Description	Packing	MOQ	Ctn
CWA-M6/DS	D Shackles - 6mm	10	10	750



## WIRE ROPE GRIPS

Code	Description	Packing	MOQ	Ctn
CWA-M6/GRIP	Wire Rope Grips - 6mm	20	20	1500
CWA-M8/GRIP	Wire Rope Grips - 8mm	10	10	600



## EYE ANCHORS

Code	Description	Packing	MOQ	Ctn
ANC-M5-EYE	Eye Anchor - 5mm x 50mm	100/Jar	1 Jar	8 Jars



# TENSIONING TOOLS

## CABLE TIES

### FEATURES & BENEFITS

- Robust and heavy duty design
- Tensions and cuts cable ties
- Adjustable tension feature on FTL-20200 & FTL-20500
- Full range of compatible cable ties available
- FTL-20200 suits up to 4.8mm nylon cable ties
- FTL-20300 suits up to 12mm nylon cable ties
- FTL-20500 & FTL-20800 suit both 4.6mm and 7.9mm stainless steel cable ties.



FTL-20500-BLADE

FTL-20500-JAW

Replaceable blade and jaw kits available.



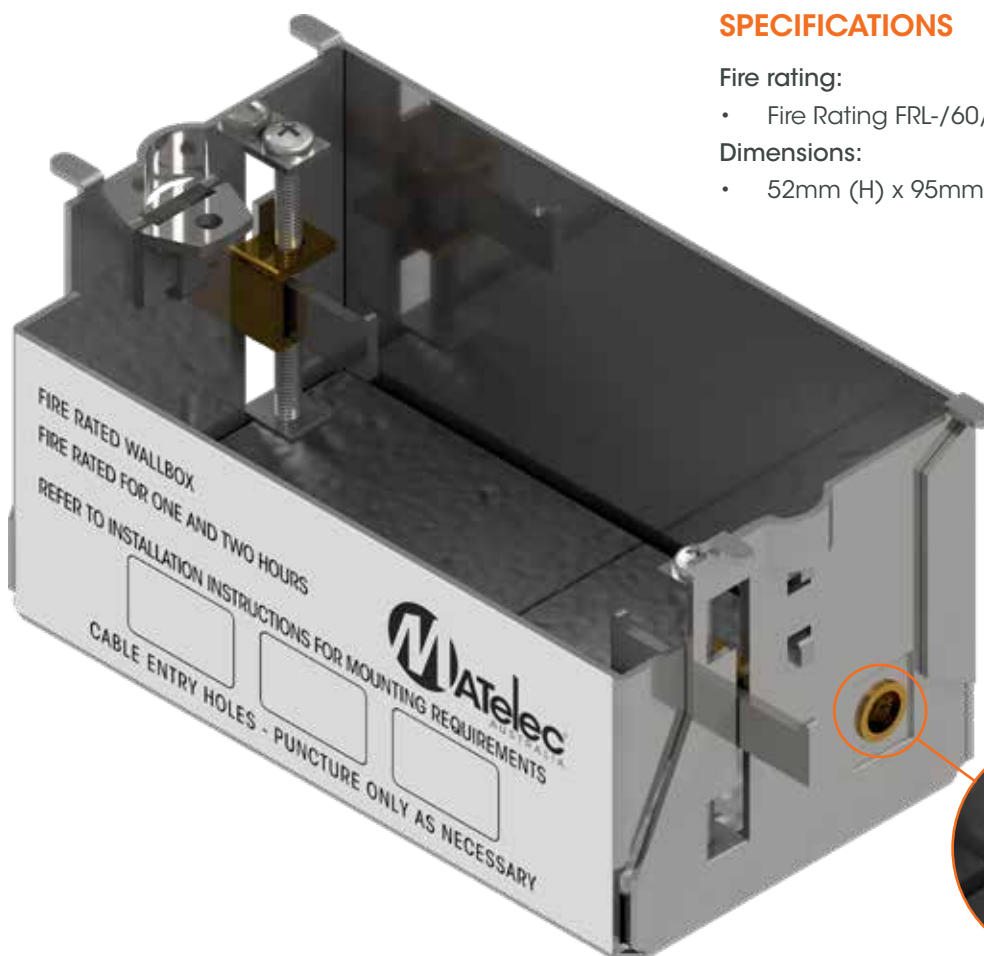
### TENSIONING TOOLS - CABLE TIES RANGE

Code	Description	Packing	MOQ	Ctn
FTL-20200	Nylon Cable Tie Tensioning Tool - Standard	1	1	20
FTL-20300	Nylon Cable Tie Tensioning Tool - Industrial	1	1	6
FTL-20500	Stainless Steel Cable Tie Tensioning Tool - A Type	1	1	5
FTL-20800	Stainless Steel Cable Tie Tensioning Tool - B Type	1	1	10
FTL-20500-BLADE	Replaceable Blade S/S Cable Tie Gun (A Type)	1	1	5
FTL-20500-JAW	Replaceable Jaw S/S Cable Tie Gun (A Type)	1	1	5

## FIRE RATED

### FEATURES & BENEFITS

- Designed for mounting switches and outlets in walls that have a specified fire rating
- Fully compliant to Australian Standards AS1530.4-2015
- Exova Warringtonfire Aust Pty Ltd certificates available on request
- Tested to 1 and 2 hour fire rating in single and back to back installations
- Supplied complete with intumescent pads and acoustic seal
- Cable entry holes - 3 in top, 2 knockouts in back
- Complete with integral 'wall box earthing' and 'earth cabling termination' connector
- Must be used with an approved Fire Rated sealant.



### SPECIFICATIONS

#### Fire rating:

- Fire Rating FRL-/60/60 and -/120/120

#### Dimensions:

- 52mm (H) x 95mm (W) x 50mm (D)

Brass earth connector

### WALL BOXES - FIRE RATED RANGE

Code	Description	Packing	MOQ	Ctn
FWB-90000	Wall Box - Fire Rated	10	10	100

# ROOF PENETRATION SEALS

## FEATURES & BENEFITS

- UV resistant EDPM rubber
- Durable, lead free material
- Reinforced aluminium frame
- Designed to mould to multiple roof profiles
- Twin side-ports for additional cabling requirements (not on SEAL-5/55B).

## SPECIFICATIONS

### Ozone resistance:

- ASTM D1149

### Water resistance:

- ASTM D471

### Tensile strength:

- 1598 psi

### Tear strength:

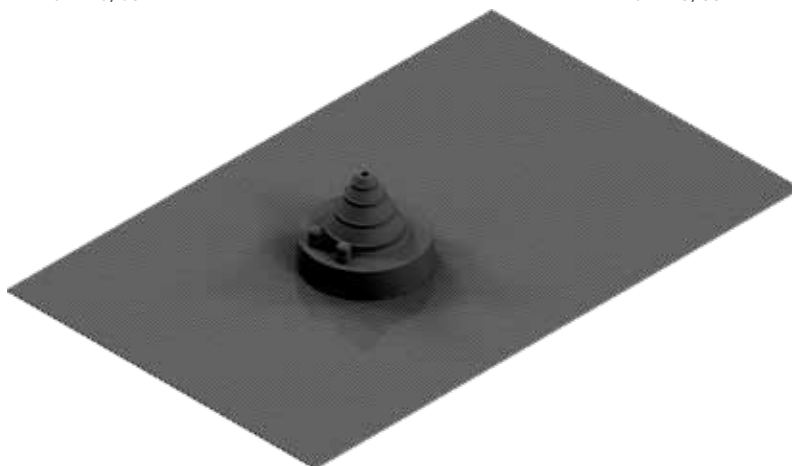
- 205 ppi



SEAL-0/35B



SEAL-5/55B



SEAL-5/50TILE

## ROOF PENETRATION SEAL RANGE

Code	Description	Penetration Size	Base Size	Packing	MOQ	Ctn
SEAL-0/35B	Roof Penetration Seal - Square	0-35mm	100x100mm	20	20	200
SEAL-5/55B	Roof Penetration Seal - Square	5-55mm	135x135mm	20	20	100
SEAL-5/50TILE	Roof Penetration Seal - Tile	5-50mm	280x450mm	1	1	25

# NOTES



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# SENSORS & KWH METERS







<b>SMOKE DETECTORS - PHOTOELECTRIC</b>	
<b>240V</b>	50
<b>WIRELESS - 10 YR LITHIUM BATTERY</b>	51
<b>240V - 10 YR LITHIUM BATTERY WITH OPTIONAL WIRELESS INTERCONNECT MODULE</b>	52
<b>INTERCONNECT MODULE &amp; REMOTE - WIRELESS</b>	53
<b>FSA-30000, FSA-50000 &amp; FSA-60000 - INTERCONNECTION OPTIONS</b>	54
<b>PIR MOTION SENSORS</b>	
<b>360° CEILING MOUNT</b>	
SURFACE MOUNT	56
FLUSH MOUNT - PREMIUM	57
FLUSH MOUNT - ECONO	58
FLUSH MOUNT - MINI	59
DUAL MOUNT - PREMIUM	60
DUAL MOUNT - ECONO	61
<b>WALL MOUNT</b>	
180° ROUND	62
COBRA IP65	63
SENTRY IP66	64
<b>PRESENCE SENSORS</b>	
<b>360° CEILING MOUNT</b>	
SURFACE MOUNT - MICROWAVE	65
FLUSH MOUNT - MICROWAVE	66
INTERIOR MOUNT - MINI MICROWAVE	67
<b>MOTION &amp; PRESENCE SENSOR COMPARISON</b>	68
<b>KWH METERS</b>	
SURFACE MOUNT - SINGLE PHASE	69
SURFACE MOUNT - THREE PHASE	70
DIN MOUNT - SINGLE PHASE	71
DIN MOUNT - SINGLE PHASE NMI	72
DIN MOUNT - THREE PHASE NMI	73
<b>TIMERS</b>	
SINGLE PHASE - 7-DAY PROGRAMMABLE - ECONO	74
SINGLE PHASE - ANALOGUE 24 HOUR	75
SINGLE PHASE - 7-DAY PROGRAMMABLE - PREMIUM	76

# SMOKE DETECTOR - PHOTOELECTRIC

240V

## FEATURES & BENEFITS

- Interconnectable with up to 20 units
- Energizer 9V battery included
- Separate hush/test button
- Hinged detachable base - easy push button open
- 'No Battery', 'No Close' feature
- Loop terminal provided
- Mounting holes line up with standard plaster brackets
- Base recessed for mains cabling - no need for large ceiling cut-away
- LED indicators
- 'Low Battery' audible warning
- 5 year warranty
- Improved resilience to EMI interference.

## SPECIFICATIONS

### Sound level output:

- 88db

### Temperature range:

- 0 - 40°C

### Humidity Range:

- 10% - 93%

### Dimensions:

- 135mm Ø x 54mm (H)

### Conforms to:

- AS3786:2014



Code	Description	Packing	MOQ	Ctn
FSA-25000	Photoelectric Smoke Detector - 240V	1	1	50

# SMOKE DETECTOR - PHOTOELECTRIC



## WIRELESS - 10 YR LITHIUM BATTERY

SEE OUR  
WEBSITE FOR  
TRAINING  
VIDEOS

### FEATURES & BENEFITS

- Discrete slimline appearance
- Wireless interconnect up to 40 units
- Simple pairing process
- Wireless distance up to 100m clear line of sight
- 3V DC non-replaceable 10 yr lithium battery
- No hard wiring - Very simple installation
- Large, easy to use test/hush button
- Easy to mount twist-on base design
- Vermin resistant
- 5 Year Warranty
- Interconnectable with FSA-60000 via FSA-50000 module, providing a complete hardwired and wireless install package (max of 24x combined FSA-30000 & FSA-60000 units interconnectable)
- Compatible with FSA-90000 remote controller.

### SPECIFICATIONS

#### Sound level output:

- 85db

#### Temp. range:

- 0 - 40°C

#### Humidity range:

- 10% - 93%

#### Dimensions:

- 114mm Ø x 40mm (H)

#### Conforms to:

- AS3786:2014



WIRELESS



Code	Description	Packing	MOQ	Ctn
FSA-30000	Photoelectric Smoke Detector - Wireless 10 Year Lithium Battery	1	1	40

# SMOKE DETECTOR - PHOTOELECTRIC

## 240V - 10 YR LITHIUM BATTERY

### FEATURES & BENEFITS

- Discrete slimline appearance
- Premium quality and design
- Interconnectable with up to 24 units (wired 150m max, wireless 60m max)
- Compatible with FSA-50000 Wireless Interconnect Module, for wireless interconnection with FSA-30000
- 3V DC 10 year lithium battery
- Separate hush/test button
- Hinged detachable base - easy push button open
- 'No Battery', 'No Close' feature
- Loop terminal provided
- Mounting holes line up with standard plaster brackets
- Base recessed for mains cabling - no need for large ceiling cut-away
- LED indicators
- 'Low Battery' audible warning
- 5 Year Warranty
- Improved resilience to EMI interference
- Compatible with FSA-90000 remote controller.

### SPECIFICATIONS

#### Sound level output:

- 85db

#### Temp. range:

- 0 - 40°C

#### Humidity range:

- 10% - 93%

#### Dimensions:

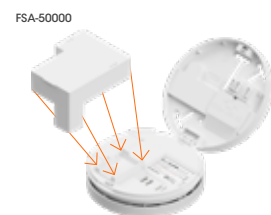
- 132mm Ø x 43mm (H)

#### Conforms to:

- AS3786:2014



### WIRELESS INTERCONNECT OPTION



**NOTE:** When using the FSA-50000 to wirelessly connect 2 or more FSA-60000 alarms, please disconnect any interconnecting cable.



Code	Description	Packing	MOQ	Ctn
FSA-60000	Photoelectric Smoke Detector - 240V 10 Year Lithium Battery	1	1	30

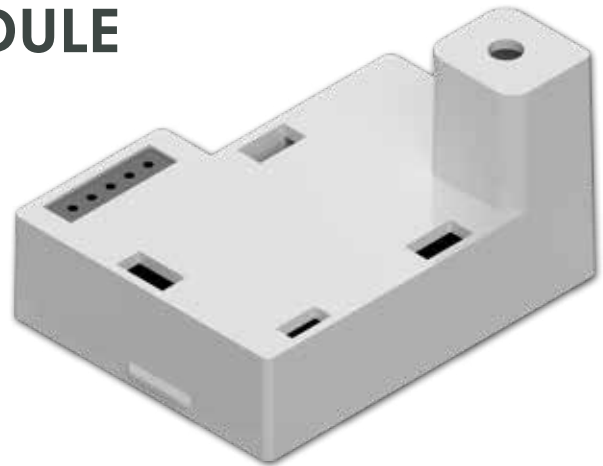
# INTERCONNECT MODULE & REMOTE

## WIRELESS

### INTERCONNECT MODULE

#### FSA-50000 FEATURES & BENEFITS

- Compatible with FSA-60000, for wireless interconnection with FSA-30000, providing a complete hardwired and wireless install package (max of 24x combined FSA-30000 & FSA-60000 units interconnectable)
- Discrete recessed appearance when installed
- 5 year warranty.



Code	Description	Packing	MOQ	Ctn
FSA-50000	Smoke Detector Wireless Interconnect Module	1	1	20

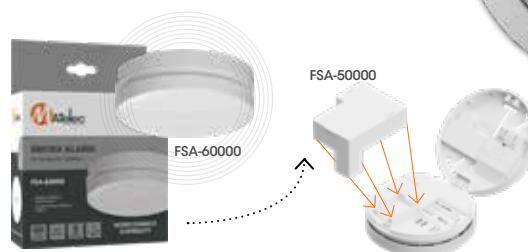
### REMOTE CONTROL

#### FSA-90000 FEATURES & BENEFITS

- Wirelessly connect to both FSA-30000 and FSA-60000
- Effortlessly test and hush smoke alarms
- Quickly identify which alarm may be false alarming
- Operating distance of 5m recommended from nearest alarm
- SOS 'Panic' feature designed to raise an alarm in the event of an emergency
- 1 year warranty (excluding battery)
- Complies with AS/NZS 4268.



**NOTE:** For FSA-90000 to connect to FSA-60000, the FSA-50000 wireless module must be installed in the FSA-60000.



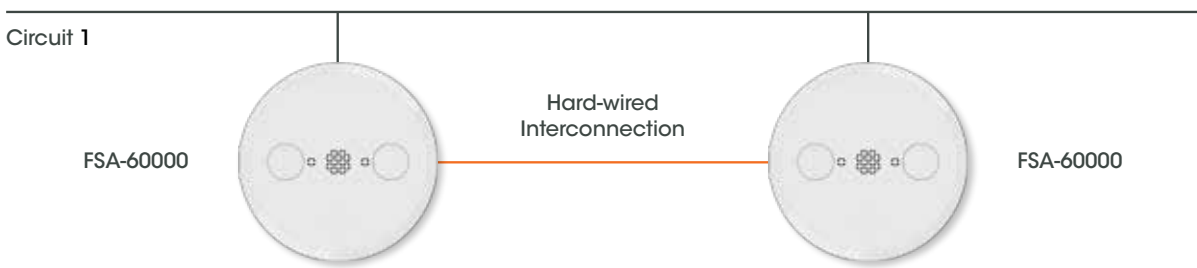
Code	Description	Packing	MOQ	Ctn
FSA-90000	Smoke Detector Remote Controller	1	1	50

# FSA-30000, FSA-50000 & FSA-60000

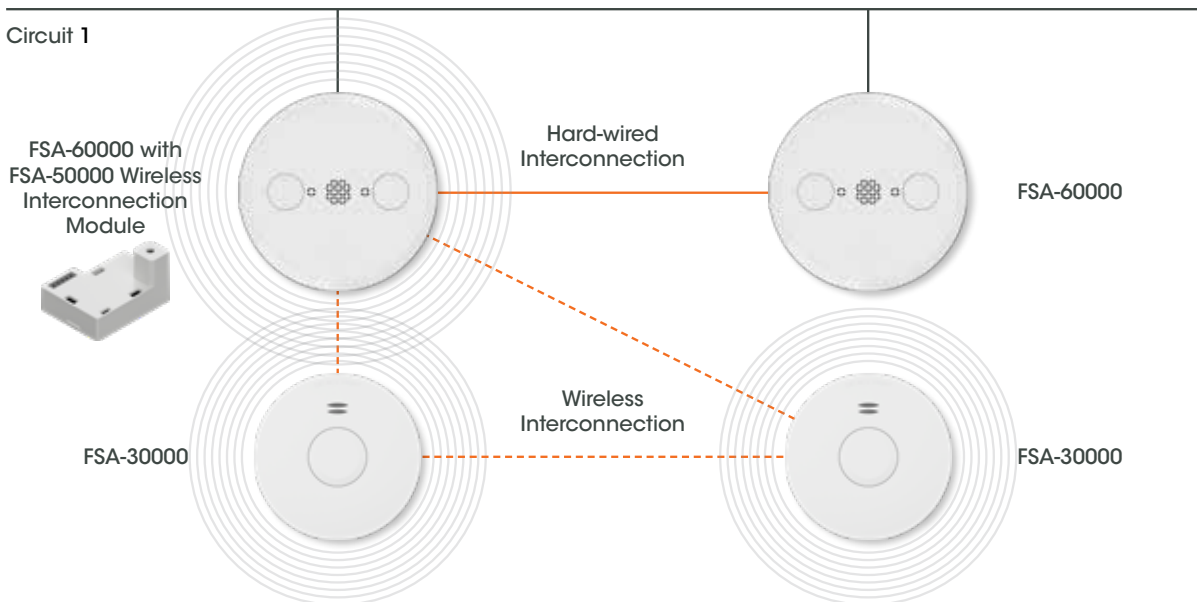
## INTERCONNECT OPTIONS

**Note** - The maximum number of FSA-30000 and FSA-60000 smoke alarms that can be interconnected is 40 units when interconnected wirelessly or 24 units when hardwired connected. The maximum wireless line of sight distance between each unit is 100m, and the maximum hard-wired distance is 150m.

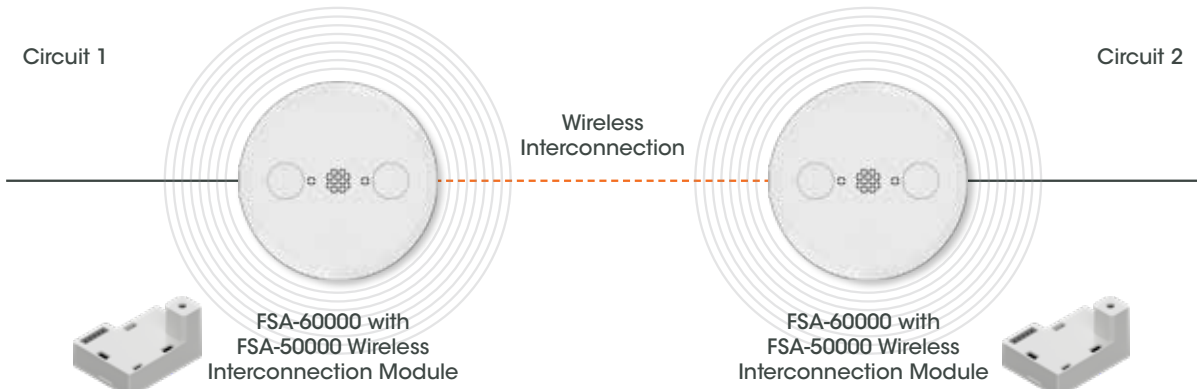
### CONFIGURATION 1 - HARD-WIRED INTERCONNECTION, 1 CIRCUIT



### CONFIGURATION 2 - HARD-WIRED & WIRELESS INTERCONNECTION, 1 CIRCUIT



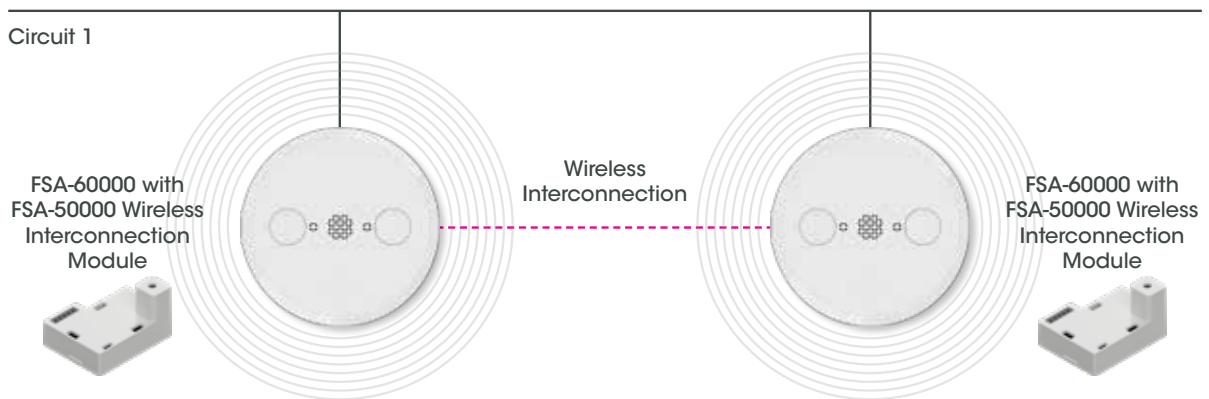
### CONFIGURATION 3 - WIRELESS INTERCONNECTION ONLY, 2 CIRCUITS



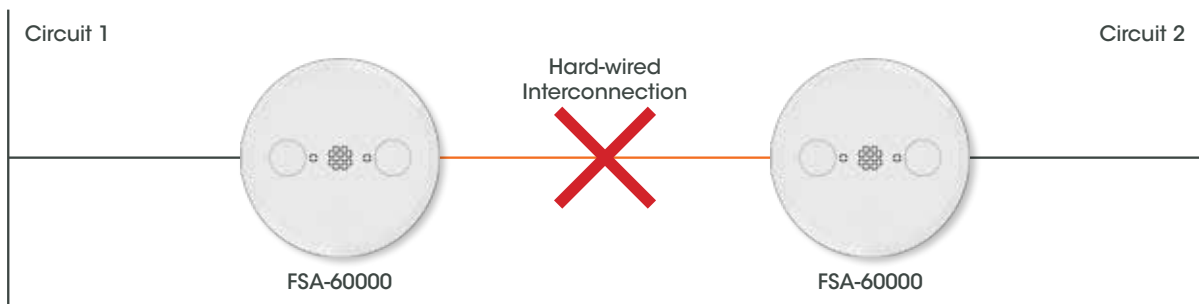
# FSA-30000, FSA-50000 & FSA-60000

## INTERCONNECT OPTIONS

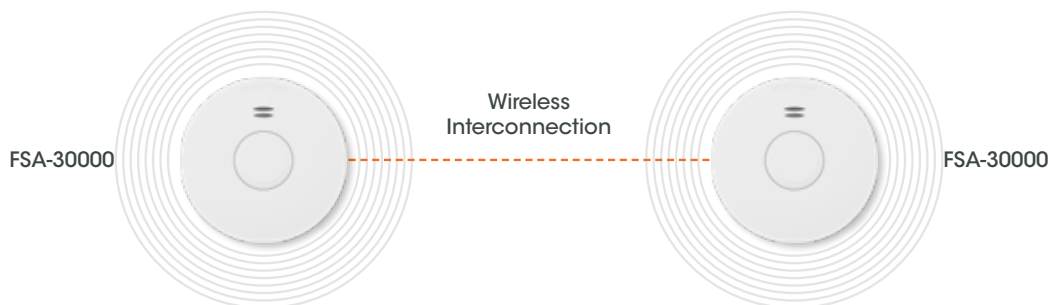
### CONFIGURATION 4 - WIRELESS INTERCONNECTION, 1 CIRCUIT



### NOT ALLOWED - HARD-WIRED INTERCONNECT, 2 CIRCUITS



### FSA-30000 ONLY - WIRELESS INSTALLATION & INTERCONNECTION



**Note** - The maximum number of FSA-30000 smoke alarms that can be interconnected is 40 units. The maximum wireless line of sight distance between each unit is 100m.

# PIR MOTION SENSOR - 360° CEILING MOUNT

## SURFACE MOUNT

**BLACK  
& WHITE  
AVAILABLE**

### FEATURES & BENEFITS

- Easy access to setting controls under front cover
- Fixings supplied
- 1 year warranty.

### SPECIFICATIONS

#### Mounting:

- Surface ceiling

#### Weatherproof rating:

- IP44, interior

#### Detection angle:

- 360°
- Detection range:
- Up to 12 metres

#### Switching capacity:

- 300W (LED),
- 300W (fluorescent)
- 1200W (incandescent)

#### Min LED load:

- 1W

#### Manual override:

- No

#### Adjustments:

- Time & lux

#### Time delay:

- 10 sec - 15 mins

#### Lux adjustment:

- Down to dusk (3-2000lux)

#### Voltage:

- 220 - 240 Vac 50Hz

#### Colour:

- Black & white

#### Dimensions:

- 88mm Ø x 55mm (H)

#### Certification:

- CE, RoHS, TUV



Code	Description	Packing	MOQ	Ctn
FMS-12055	PIR Motion Sensor - 360° Surface Ceiling Mount - White	1	1	50
FMS-12055-B	PIR Motion Sensor - 360° Surface Ceiling Mount - Black	1	1	50



# PIR MOTION SENSOR - 360° CEILING MOUNT



## FLUSH MOUNT - PREMIUM

### FEATURES & BENEFITS

- Aesthetically pleasing finish
- Enlarged cable entry for easy wiring
- Stainless steel fixings supplied
- 3 year warranty.

### SPECIFICATIONS

#### Mounting:

- Flush/recess ceiling

#### Weatherproof rating:

- IP44, interior

#### Detection angle:

- 360°

#### Detection range:

- Up to 6 metres

#### Switching capacity:

- 300W (LED)
- 300W (fluorescent)
- 1200W (incandescent)

#### Min LED load:

- 1W

#### Manual override:

- No

#### Adjustments:

- Time & lux

#### Time delay:

- 5 sec - 15 mins
- Lux adjustment:
- Dawn to dusk (2-2000lux)

#### Voltage:

- 220 - 240 Vac 50Hz

#### Colour:

- White

#### Dimensions:

- 90mm Ø x 21mm (H)

#### Cut-out hole:

- 70mm Ø
- Certification:
- SAA



Code	Description	Packing	MOQ	Ctn
FMS-12064	PIR Motion Sensor - 360° Flush Ceiling Mount - Premium	1	1	6

# PIR MOTION SENSOR - 360° CEILING MOUNT

## FLUSH MOUNT - ECONO

### FEATURES & BENEFITS

- Discrete unobtrusive design
- Easy access to adjustment settings
- Fixings supplied
- 1 year warranty.

### SPECIFICATIONS

#### Mounting:

- Flush/recess ceiling

#### Weatherproof rating:

- IP44, interior

#### Detection angle:

- 360°

#### Detection range:

- Up to 6 metres

#### Switching capacity:

- 300W (LED)
- 300W (fluorescent)
- 1200W (incandescent)

#### Min LED load:

- 1W

#### Manual override:

- No

#### Adjustments:

- Time & lux

#### Time delay:

- 10 sec - 15 mins

#### Lux adjustment:

- Dawn to dusk (3-2000lux)

#### Voltage:

- 220 - 240 Vac 50Hz

#### Colour:

- White

#### Dimensions:

- 75mm Ø x 55mm (H)

#### Cut-out hole:

- 62mm Ø

#### Certification:

- CE, RoHS, TUV, SAA



Code	Description	Packing	MOQ	Ctn
FMS-12064-A	PIR Motion Sensor - 360° Flush Ceiling Mount - Econo	1	1	50

# PIR MOTION SENSOR - 360° CEILING MOUNT



## FLUSH MOUNT - MINI

**BLACK &  
WHITE ALL  
IN ONE**

### FEATURES & BENEFITS

- Extremely compact slimline design
- Enlarged cable entry for easy wiring
- Fixings supplied
- 3 year warranty.

### SPECIFICATIONS

#### Mounting:

- Flush/recess ceiling

#### Weatherproof rating:

- IP20, interior

#### Detection angle:

- 360°

#### Detection range:

- Up to 6 metres

#### Switching capacity:

- 300W (LED)
- 300W (fluorescent)
- 1200W (incandescent)

#### Min LED load:

- 1W

#### Manual override:

- Yes

#### Adjustments:

- Time & lux

#### Time delay:

- 10 sec - 15 mins

#### Lux adjustment:

- Dawn to dusk (2-2000lux)

#### Voltage:

- 220 - 240 Vac 50Hz

#### Colour:

- White & black  
(both cover plates included)

#### Dimensions:

- 50mm Ø x 67mm (H)

#### Cut-out hole:

- 42mm Ø

#### Certification:

- CE, RoHS, TUV, SAA



Code	Description	Packing	MOQ	Ctn
FMS-12075	PIR Motion Sensor - 360° Flush Ceiling Mount - Mini	1	1	50

# PIR MOTION SENSOR - 360° CEILING MOUNT

## DUAL MOUNT - PREMIUM

### FEATURES & BENEFITS

- Triple PIR for maximum detection
- Occupancy feature - High and low sensing zones
- Enlarged cable entry for easy wiring
- Easy access to setting controls under front cover
- Stainless steel fixings supplied
- 5 year warranty.

### SPECIFICATIONS

#### Mounting:

- Flush/recess and surface ceiling, all in one

#### Weatherproof rating:

- IP44 (surface)
- IP20 (flush/recess)

#### Detection angle:

- 360°

#### Detection range:

- Up to 22 metres

#### Switching capacity:

- 200W (LED)
- 600W (fluorescent)
- 2000W (incandescent)

#### Min LED load:

- 1W
- Manual override:
- No

#### Adjustments:

- Time, lux and sensitivity

#### Time delay:

- 10 sec - 40 mins

#### Lux adjustment:

- Dawn to dusk (2-2000lux)

#### Voltage:

- 220 - 240 Vac 50Hz

#### Colour:

- White

#### Dimensions:

- 105mm Ø x 55mm (H)

#### Cut-out hole:

- 80mm Ø

#### Certification:

- SAA



Code	Description	Packing	MOQ	Ctn
FMS-12080	PIR Motion Sensor - 360° Dual Ceiling Mount - Premium	1	1	50

# PIR MOTION SENSOR - 360° CEILING MOUNT



## DUAL MOUNT - ECONO

### FEATURES & BENEFITS

- Enlarged cable entry for easy wiring
- Easy access to setting controls under front cover
- Stainless steel fixings supplied
- 3 year warranty.

### SPECIFICATIONS

#### Mounting:

- Flush/recess and surface ceiling, all in one

#### Weatherproof rating:

- IP44

#### Detection angle:

- 360°

#### Detection range:

- 6 to 16 metres

#### Switching capacity:

- 1000W (LED)
- 1000W (fluorescent)
- 2000W (incandescent)

#### Min LED load:

- 1W

#### Manual override:

- Yes

#### Adjustments:

- Time, lux and sensitivity

#### Time delay:

- 10 sec - 30 mins

#### Lux adjustment:

- Down to dusk (3-2000lux)

#### Voltage:

- 220 - 240 Vac 50Hz

#### Colour:

- White

#### Dimensions:

- 104mm Ø x 38mm (H)

#### Cut-out hole:

- 82mm Ø

#### Certification:

- CE, RoHS, SAA



Code	Description	Packing	MOQ	Ctn
FMS-50000	PIR Motion Sensor - Dual Ceiling Mount - Econo	1	1	50

# PIR MOTION SENSOR - WALL MOUNT

## 180° ROUND

### FEATURES & BENEFITS

- Fixings supplied
- 1 year warranty.

### SPECIFICATIONS

#### Mounting:

- Wall

#### Weatherproof rating:

- IP44, exterior

#### Detection angle:

- 180°

#### Detection range:

- Up to 12 metres

#### Switching capacity:

- 300W (LED)
- 300W (fluorescent)
- 1200W (incandescent)

#### Min LED load:

- 1W
- Manual override:
- Yes

#### Adjustments:

- Time & lux

#### Time delay:

- 10 sec - 7 mins

#### Lux adjustment:

- Dawn to dusk (3-2000lux)

#### Voltage:

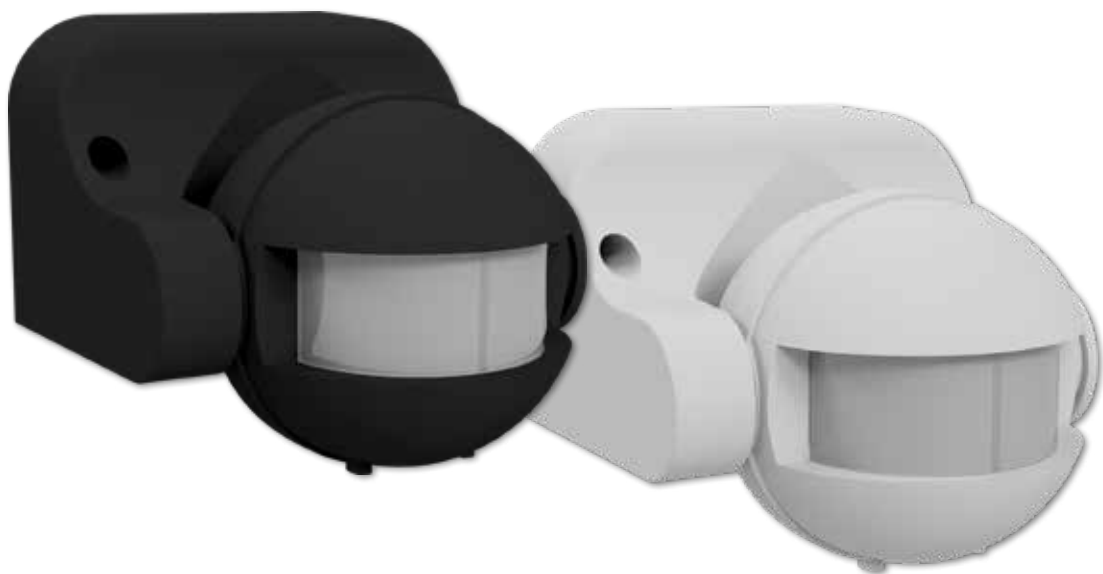
- 220 - 240 Vac 50Hz

#### Colour:

- Black & White
- Sensing adjustment:
- Vertical

#### Certification:

- CE, RoHS, TUV, SAA



Code	Description	Packing	MOQ	Ctn
FMS-12050	PIR Motion Sensor - Wall Mount - 180° Round - Black	1	1	50
FMS-12051	PIR Motion Sensor - Wall Mount - 180° Round - White	1	1	50

# PIR MOTION SENSOR - 180° WALL MOUNT



## COBRA IP65

### FEATURES & BENEFITS

- Sleek modern design
- Fixings supplied
- 5 year warranty.

### SPECIFICATIONS

**Mounting:**

- Wall

**Weatherproof rating:**

- IP65, exterior

**Detection angle:**

- 180°

**Detection range:**

- Up to 12 metres

**Switching capacity:**

- 300W (LED)
- 300W (fluorescent)
- 1200W (incandescent)

**Min LED load:**

- 1W

**Manual override:**

- Yes

**Adjustments:**

- Time & lux

**Time delay:**

- 10 sec - 15 mins

**Lux adjustment:**

- Dawn to dusk (3-2000lux)

**Voltage:**

- 220 - 240 Vac 50Hz

**Colour:**

- White

**Detection speed:**

- Vertical

**Power consumption:**

- 0.5W

**Operating temperature:**

- -20 to 40 °C

**Sensing adjustment:**

- Vertical and horizontal

**Certification:**

- CE, RoHS, TUV, SAA



Code	Description	Packing	MOQ	Ctn
FMS-10000	PIR Motion Sensor - 180° Wall Mount - Cobra IP65	1	1	50

# PIR MOTION SENSOR - 120° WALL MOUNT

## SENTRY IP66

### FEATURES & BENEFITS

- Market leading weatherproof rating
- Easy access to setting controls
- 3M adhesive mounting pad
- Fixings supplied
- Premium quality
- 5 year warranty.



### SPECIFICATIONS

#### Mounting:

- Wall

#### Weatherproof rating:

- IP66,

#### Detection angle:

- 120°

#### Detection range:

- Up to 18 metres

#### Switching capacity:

- 2000W resistive (Incandescent)
- 1000W inductive (Fluorescent or LED)

#### Min LED load:

- 1W

#### Manual Override:

- Yes

#### Adjustments:

- Time, lux & sensitivity

#### Time delay:

- 10 sec - 15 mins

#### Lux adjustment:

- Down to dusk (3-2000lux)

#### Voltage:

- 220 - 240 Vac 50Hz

#### Connection:

- 3 wire

#### Colour:

- Grey or Black

#### Sensing adjustment:

- Vertical and horizontal

#### Certification:

- CE, RoHS, SAA



Code	Description	Packing	MOQ	Ctn
FMS-15000	PIR Motion Sensor - 120° Wall Mount - Sentry IP66 - Grey	1	1	40
FMS-15000-B	PIR Motion Sensor - 120° Wall Mount - Sentry IP66 - Black	1	1	40



# PRESENCE SENSOR - 360° CEILING MOUNT



## SURFACE MOUNT - MICROWAVE

**MICROWAVE  
TECHNOLOGY**

### FEATURES & BENEFITS

- Optimised presence detection, perfect for open plan offices
- Detects movement through most glass, thin walls and some doors
- High sensitivity to movement
- Occupancy feature - High and low sensing zones
- Easy access to setting controls under front cover
- Stainless steel fixings supplied
- 3 year warranty.

### SPECIFICATIONS

#### Mounting:

- Surface ceiling

#### Weatherproof rating:

- IP20, interior

#### Detection angle:

- 360° downward

#### Detection range:

- Up to 16 metres

#### Switching capacity:

- 300W (LED)
- 300W (fluorescent)
- 800W (incandescent)

#### Min LED load:

- 1W

#### Manual override:

No

#### Colour:

- White

#### Adjustments:

- Time, lux & sensitivity

#### Time delay:

- 10 sec - 12 mins

#### Lux adjustment:

- Dawn to dusk  
(2-2000lux)

#### Voltage:

220 - 240 Vac 50/60Hz

#### Dimensions:

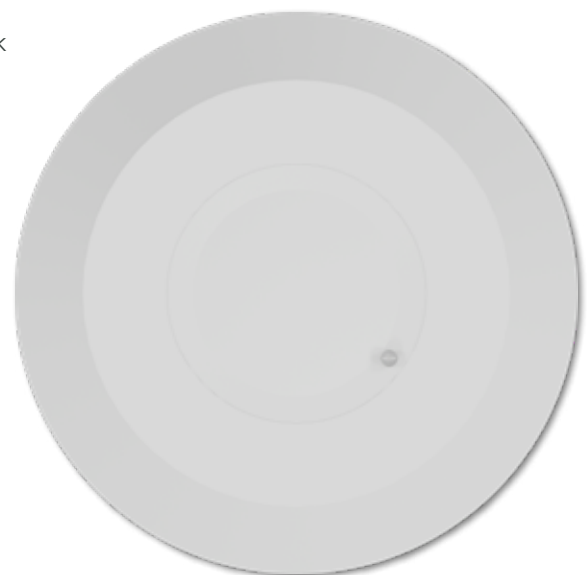
- 102mm Ø x 24mm (H)

#### Certification:

- SAA

#### HF system:

- 5.8 GHz CW Radar ISM Band



Code	Description	Packing	MOQ	Ctn
FMS-13500	Microwave Presence Sensor - 360° Surface Ceiling Mount	1	1	50

# PRESENCE SENSOR - 360° CEILING MOUNT

## FLUSH MOUNT - MICROWAVE

MICROWAVE  
TECHNOLOGY

### FEATURES & BENEFITS

- Discrete unobtrusive design
- Easy access to adjustment settings
- Time, lux and sensitivity adjustments
- Fixings supplied
- 5 year warranty.

### SPECIFICATIONS

#### Mounting:

- Flush/recess ceiling

#### Weatherproof rating:

- IP44, interior

#### Detection angle:

- 360°

#### Detection range:

- Up to 8 metres

#### Switching capacity:

- 300W (LED)
- 300W (fluorescent)
- 1200W (incandescent)

#### Min LED load:

- 1W

#### Manual override:

- No

#### Adjustments:

- Time, lux & sensitivity

#### Time delay:

- 10 sec - 12 mins

#### Lux adjustment:

- Dawn to dusk (3-2000lux)

#### Voltage:

- 220 - 240 Vac 50Hz

#### Colour:

- White

#### Dimensions:

- 75mm Ø x 55mm (H)

#### Cut-out hole:

- 62mm Ø

#### Certification:

- SAA

#### Frequency:

- 5.725 - 5.825 GHz



Code	Description	Packing	MOQ	Ctn
FMS-12064-M	Microwave Presence Sensor - 360° Flush Ceiling Mount	1	1	50

# PRESENCE SENSOR - 360° INTERNAL MOUNT



## MINI MICROWAVE

IDEAL FOR  
INSIDE  
LIGHTING  
FIXTURES

### FEATURES & BENEFITS

- Ideal for placement inside light fittings and fixtures
- High sensitivity to movement
- 2 year warranty.

### SPECIFICATIONS

**Mounting:**

- Internal

**Weatherproof rating:**

- IP20, interior

**Detection angle:**

- 360°

**Detection range:**

- Up to 8 metres max

**Switching capacity:**

- 300W (LED)
- 300W (fluorescent)
- 1200W (incandescent)

**Min LED load:**

- 1W

**Manual override:**

- No

**Adjustments:**

- Time, lux & sensitivity

**Time delay:**

- 10 sec - 12 mins

**Lux adjustment:**

- Down to dusk (3-2000lux)

**Voltage:**

- 220 - 240 Vac 50Hz

**Colour:**

- White

**Dimensions:**

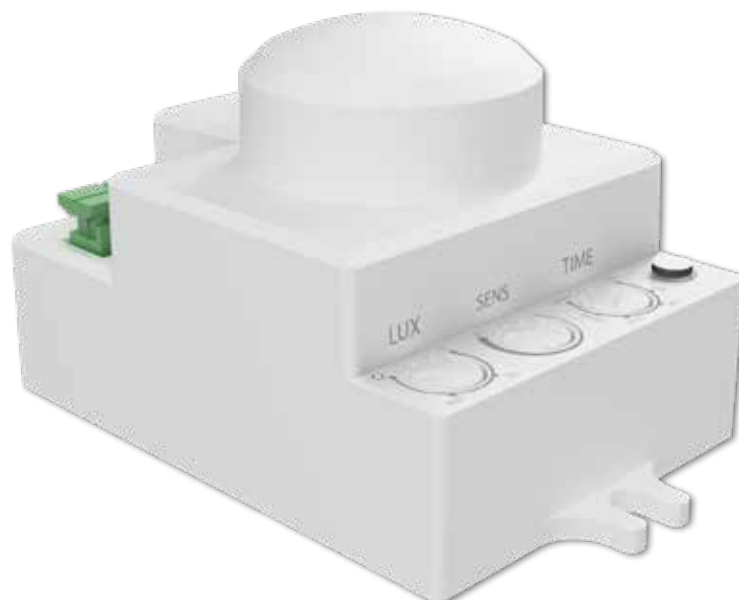
- 67mm (L) x 39mm (W) x 37mm (H)

**Cut-out hole:**

- 62mm Ø

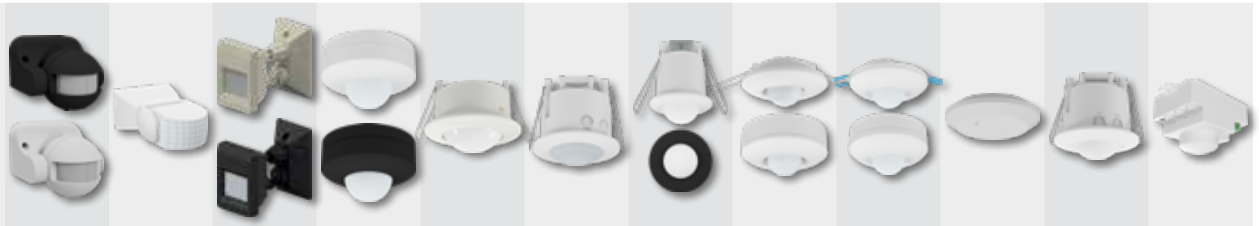
**Certification:**

- CE, RoHS, SAA



Code	Description	Packing	MOQ	Ctn
FMS-13600	Microwave Presence Sensor - 360° Internal Mount Mini	1	1	50

# MOTION & PRESENCE SENSOR COMPARISON



	PIR MOTION SENSORS - WALL MOUNT			PIR MOTION SENSORS -360° CEILING MOUNT						MICROWAVE PRESENCE SENSORS - 360° CEILING MOUNT		
				SURFACE MOUNT	FLUSH MOUNT			DUAL MOUNT				
	180° ROUND WHITE & BLACK	COBRA IP65	SENTRY IP66 GREY & BLACK	WHITE & BLACK	PREMIUM	ECONO	MINI	PREMIUM	ECONO	SURFACE MOUNT	FLUSH MOUNT	INTERIOR MOUNT
<b>Code</b>	FMS-12050 FMS-12051	FMS-10000	FMS-15000 FMS-15000-B	FMS-12055 FMS-12055-B	FMS-12064	FMS-12064-A	FMS-12075	FMS-12080	FMS-50000	FMS-13500	FMS-12064-M	FMS-13600
<b>Type</b>	3 Wire PIR			3 Wire PIR						3 Wire Microwave		
<b>Mounting</b>	Wall			Surface Ceiling	Flush Ceiling			Flush or Surface Ceiling		Surface Ceiling	Flush Ceiling	Internal
<b>IP Rating</b>	IP44	IP65	IP66	IP44			IP20	IP20 (Flush) IP44 (Surface)	IP44	IP20		
<b>Detection Angle</b>	180°		120°	360°			360°		360°			
<b>Detection Range</b>	Up to 12m		Up to 18m	Up to 12m	Up to 6m			Up to 22m	Up to 16m	Up to 20m	Up to 8m	
<b>Switching Capacity</b>	300W LED 300W Fluro 1200W Incand		1000W Inductive (Fluro & LED) 2000W Resistive (Incand)	300W LED 300W Fluro 1200W Incand	300W LED 500W Fluro 2000W Incand	300W LED 300W Fluro 1200W Incand	300W LED 400W Fluro 800W Incand	200W LED 600W Fluro 2000W Incand	200W LED 1000W Fluro 2000W Incand	200W LED 300W Fluro 1200W Incand	300W LED 300W Fluro 1200W Incand	
<b>Min LED Load</b>	1W			1W						1W		
<b>Manual Override</b>	Yes			No			Yes	No	Yes	No		
<b>Time Delay</b>	10 sec - 7 min	10 sec - 15 mins		10 sec - 7 min	5 sec - 15 min	10 sec - 15 min	10 sec - 7 min	10 sec - 40 min	10 sec - 30 min	8 sec - 12 min	10 sec - 12 min	
<b>Adjustment Controls</b>	Time Lux			Time Lux			Time Lux Sensitivity		Time Lux Sensitivity			
<b>Voltage</b>	220-240V 50Hz			220-240V 50Hz						220-240V 50Hz		
<b>Colour</b>	Black White	White	Grey Black	White Black	White		Black/ White	White		White		
<b>Cutout if applicable</b>	N/A			N/A	70mm	62mm	42mm	80mm	82mm	N/A	62mm	N/A
<b>Dimensions</b>	N/A			88mm Ø 55mm (H)	90mm Ø 68mm (H) 21mm Pro.	75mm Ø 55mm (H) 19mm Pro.	50mm Ø 67mm (H) 16mm Pro.	105mm Ø 55mm (H) 37mm Pro.	104mm Ø 38mm	96mm Ø 42mm (H)	75mm Ø 55mm (H) 19mm Pro.	67mm (L) 39mm (W) 37mm (H)
<b>Warranty</b>	1 year	5 year		1 year	3 year	1 year	3 year	5 year	3 year	3 year	5 year	2 year

# KWH METER - SURFACE MOUNT

## SINGLE PHASE

### FEATURES & BENEFITS

- Heavy duty design
- For single phase direct metering
- Suitable for industrial properties and industrial equipment metering
- NMI approved version available on request
- 1 year warranty
- Note - Not suitable for solar applications.

### SPECIFICATIONS

#### Weatherproof rating:

- IP54

#### Display:

- Backlit LCD with 5 integers, 3 decimals

#### Accuracy class:

- 1

#### Maximum rated current:

- 100 Amp

#### Starting current:

- 20mA

#### Nominal voltage:

- 230Vac

#### Nominal frequency:

- 50Hz

#### Maximum cable capacity:

- 25mm<sup>2</sup>

#### Operating temperature:

- -40°C to +70°C

#### Test output flash rate:

- 1000 impulses per kWh

#### Backup battery life:

- 10 years

#### Conforms to:

- IEC62052-11, IEC62053-21

#### Dimensions:

- 186 mm (H) x 115mm (W) x 42mm (D)



Code	Description	Packing	MOQ	Ctn
FKW-18110	KWH Meter - Surface Mount - Direct Electronic 0-100A - Single Phase	1	1	20

# KWH METER - SURFACE MOUNT

## THREE PHASE

### FEATURES & BENEFITS

- Heavy duty design
- For three phase direct metering
- Polyphase - Suitable for 1, 2 and 3 phase metering
- Suitable for industrial properties and industrial equipment metering
- NMI approved version available on request
- 1 year warranty
- Note - Not suitable for solar applications.

### SPECIFICATIONS

**Weatherproof rating:**

- IP54

**Display:**

- Backlit LCD with 6 integers, 3 decimals

**Accuracy class:**

- 1

**Maximum rated current:**

- 100 Amp

**Starting current:**

- 20mA

**Nominal voltage:**

- 230/400Vac

**Nominal frequency:**

- 50Hz

**Maximum cable capacity:**

- 25mm<sup>2</sup>

**Operating temperature:**

- -40°C to +70°C

**Test output flash rate:**

- 1000 impulses per kWh

**Backup battery life:**

- 10 years

**Conforms to:**

- IEC62052-11, IEC62053-21

**Dimensions:**

- 218 mm (H) x 168mm (W) x 56mm (D)



Code	Description	Packing	MOQ	Ctn
FKW-18120	KWH Meter - Surface Mount - Direct Electronic 0-100A - Three Phase	1	1	10

# KWH METER - DIN RAIL MOUNT

## SINGLE PHASE

### FEATURES & BENEFITS

- For single phase direct metering
- Super compact slimline design
- 1 year warranty
- Note - Not suitable for solar applications.

### SPECIFICATIONS

#### Materials:

- Case - PBT, PC
- Hook - ABS

#### Weatherproof rating:

- IP51

#### Display:

- Analogue counter,  
5+1 = 00000.9kWh

#### Accuracy class:

- Class 1

#### Operational current range:

- 5A - 50A

#### Nominal voltage:

- 230V  $\pm$  20%

#### Operating frequency:

- 50Hz

#### Starting current:

- Below 0.004lb

#### Current - $\leq$ 27mA Maximum cable capacity:

- 1 Phase: 10mm<sup>2</sup> (neutral  
10mm<sup>2</sup>)

#### Temperature range:

- -25°C - +55°C

#### Power consumption:

- $\leq$ 8VA  $\leq$  0.4W

#### Impulse indication:

- Flashing red

#### Impulse constant:

- 1000imp/kWh

#### Pulse output:

- Voltage - 12~27VMax length of lead - 20m
- Impulse width - 90ms
- Connect to terminals 20 & 21
- Limit of values - Max 60VCD, max 50mA

#### Conforms to:

- EN50470-3:2006
- IEC62052-11
- IEC62053-21

#### Dimensions:

- 120mm (W) x 63mm (H)



Code	Description	Packing	MOQ	Ctn
FKW-10000	KWH Meter - Din Rail Mount - Direct Electronic 0-50A - Single Phase	1	1	10

# KWH METER - DIN RAIL MOUNT

## SINGLE PHASE - NMI APPROVED

**NMI  
APPROVED**

### FEATURES & BENEFITS

- New slimline design
- NMI approved for billing applications
- Digital LCD display
- Tamper seal kit supplied
- 1 year warranty
- Note - Not suitable for solar applications.

### SPECIFICATIONS

#### Materials:

- Housing - Fire resistant ABS

#### Weatherproof rating:

- IP51

#### Display:

- Backlit blue LCD

#### Accuracy class:

- Class 1

#### Insulation class:

- Class 2

#### Maximum rated current:

- 100 Amp

#### Operational current range:

- 0.25 - 100 Amp

#### Over current withstand:

- 1000 Amp for 0.1s

#### Nominal voltage:

- 230 Vac

#### Operating frequency:

- 50 - 60 Hz

#### Maximum cable capacity:

- 25mm<sup>2</sup> (neutral 2.5mm<sup>2</sup>)

#### Operating temperature:

- -20°C to 65°C

#### Test output flash rate:

- 1000 impulses per kWh

#### Power supply indicator:

- Mains power ON

#### Consumption indicator:

- Flashing on load

#### Dimensions:

- 90mm (H) x 18mm (W)  
x 72mm (D)  
1 Module

Report/Certification Number	Date Issued
UL, LLC test report reference no. R11456868-NMI (NMI M6-1)	27/07/2017
NMI M6 Clause A.2.1.6 Short Term Overcurrent Test C, Ref PL1545-R1	19/04/2017
National Measurement Institute CoA NMI 14/2/100	04/10/2017
IEC Test Report IEC62053-21:2003, IEC 62053-11:2003, SICEM Ref WJ14297 (IEC 62053-21:2003 and IEC 62052-11:2003)	12/12/2014



Code	Description	Packing	MOQ	Ctn
FKW-15110/NMI	KWh Meter - Din Rail Mount - Direct Electronic 0-100A - Single Phase - NMI Approved	1	1	90



# KWH METER - DIN RAIL MOUNT



## THREE PHASE - NMI APPROVED

**NMI  
APPROVED**

### FEATURES & BENEFITS

- NMI approved for billing applications
- Digital LCD display
- Polyphase - Suitable for 1, 2 and 3 phase metering
- Tamper seal kit available
- 1 year warranty
- Note - Not suitable for solar applications.

### SPECIFICATIONS

#### Materials:

- Housing - Fire resistant ABS

#### Weatherproof rating:

- IP51

#### Display:

- Backlit blue LCD

#### Accuracy class:

- Class 1

#### Insulation class:

- Class 2

#### Maximum rated current:

- 100 Amp

#### Operational current range:

- 0.25 - 100 Amp

#### Over current withstand:

- 1000 Amp for 0.1s

#### Nominal voltage:

- 230 /415Vac

#### Operating frequency:

- 50 - 60 Hz

#### Maximum cable capacity:

- 25mm<sup>2</sup> (neutral 2.5mm<sup>2</sup>)

#### Operating temperature:

- -20°C to 65°C

#### Test output flash rate:

- 1000 impulses per kWh

#### Power supply indicator:

- Mains power ON

#### Consumption indicator:

- Flashing on load

#### Conforms to:

- IEC62052-11
- IEC62053-21

#### Dimensions:

- 100mm (H) x 122mm (W) x 65mm (D) 7 Modules

Report/Certification Number	Date Issued
SGS Test Report Reference No. SHE5190301218301	5/5/2019
National Measurement Institute (NMI) 14/2/107	10/7/2019
IEC Test Report IEC 62053-21:2003, IEC62052-11:2003	12/12/2014



Code	Description	Packing	MOQ	Ctn
FKW-15120/NMI	KWH Meter - Din Rail Mount - Direct Electronic 0-100A - Three Phase - NMI Approved	1	1	30

# TIMER - DIN RAIL MOUNT

## 7-DAY PROGRAMMABLE - ECONO

### FEATURES & BENEFITS

- Simple programming functionality
- Compact slimline design
- Transparent display flap for added protection
- Manual override feature
- 1 year warranty.

### SPECIFICATIONS

#### Mounting:

- Din Rail

#### Weatherproof rating:

- IP20

#### Display:

- LCD

#### Supply voltage options:

- 12Vac/dc, 24Vac/dc, 240Vac

#### Operating frequency:

- 50/60Hz

#### Power consumption:

- < 5VA

#### Relay outputs:

- Common - NO, NC

#### Rated switching voltage:

- 250Vac

#### Operational current range:

- Resistive 16A, inductive 8A

#### Service life:

- Mechanical 107 ,electrical 107

#### Accuracy:

- <  $\pm 2$  sec/day

#### Timing range:

- 1 min ~ 168 hours

#### Programmable functions:

- Up to 28 On/Off or manual override

#### Maximum cable capacity:

- 1 Phase: 4mm<sup>2</sup>

#### Temperature range:

- -10°C ~ +50°C

#### Operational indication:

- Solid red LED

#### Backup battery:

- Lithium (90 day standby capability)



Code	Description	Packing	MOQ	Ctn
TIMER-7D/D-240V	Timer - Din Rail Mount - 7 Day Programmable - 240Vac	1	1	100
TIMER-7D/D-24V	Timer - Din Rail Mount - 7 Day Programmable - 24Vac/dc	1	1	100
TIMER-7D/D-12V	Timer - Din Rail Mount - 7 Day Programmable - 12Vac/dc	1	1	100

# TIMER - DIN RAIL MOUNT

## ANALOGUE 24 HOUR

### FEATURES & BENEFITS

- Simple programming functionality
- Compact slimline design
- Transparent display flap for added protection
- Manual override feature
- 1 year warranty.

### SPECIFICATIONS

**Mounting:**

- Din Rail

**Weatherproof rating:**

- IP20

**Display:**

- Analogue

**Supply voltage options:**

- 240Vac

**Operating frequency:**

- 50/60Hz

**Power consumption:**

- 1W

**Relay outputs:**

- N/O

**Rated switching voltage:**

- 240Vac

**Operational current range:**

- Resistive 16A, inductive 10A

**Timing range:**

- 24 hours, 15 min segments

**Switching functions:**

- Off, Auto, On

**Max cable capacity:**

- 1 Phase: 4mm<sup>2</sup>

**Working reserve time:**

- 100 hours



Code	Description	Packing	MOQ	Ctn
TIMER-24H/A	Timer - Din Rail Mount - Analogue - 24 Hour - 240V	1	1	120

# TIMER - DIN RAIL MOUNT

## 7-DAY PROGRAMMABLE - PREMIUM

### FEATURES & BENEFITS

- 7 different programs, one for each day of the week
- 4 year lithium backup battery (replaceable) for maintaining the date and time without mains power
- Low battery indicator
- Manual override (temporary or permanent)
- Backlit LCD with auto power off
- Compact slimline design
- 5 year warranty.



### SPECIFICATIONS

#### Mounting:

- Din Rail

#### Weatherproof rating:

- IP20

#### Display:

- LCD

#### Supply voltage options:

- 240Vac

#### Operating frequency:

- 50/60Hz

#### Power consumption:

- 1W

#### Relay outputs:

- 16A

#### Rated switching voltage:

- 240Vac

#### Switching functions:

- Off, Auto, On

#### Max cable capacity:

- 1 Phase: 4mm<sup>2</sup>

#### Battery life:

- 4 years/Lithium CR-1632

#### Programming resolution

- 30 Minutes

#### Programmable functions:

- Weekly (7 programs) 7 different programs, one for each day of the week. Option to set 'Daily mode' (same program runs each day)



Code	Description	Packing	MOQ	Ctn
TIMER-D10	Time Clock Slimline LCD 1 R/O Programmable 24x7 - 240Vac	1	1	80

# NOTES



Horizontal lines for writing notes.

Specifications are subject to change without notice | Images are a guide only and may differ from actual product



# LIGHTING





## **LED WEATHERPROOF FITTINGS**

OXFORD IP66	80
CAPRICORN IP65	81
<b>BULKHEAD - BABY EMPEROR</b>	82
<b>FLOODLIGHTS - SLIMLINE LED</b>	83
<b>LAMP HOLDERS &amp; 3 PIN PLUG + LEAD</b>	84

# LED WEATHERPROOF VANDAL RESISTANT FITTINGS

## OXFORD IP66

### FEATURES & BENEFITS

- Vandal resistant strength
- High quality industrial design
- Sleek slimline design
- Quick wiring access point
- OSRAM LED driver and high output LED chip
- SAA approved
- Ideal for high traffic areas and washdown bays
- All fixings and stainless steel brackets supplied
- Available as an emergency backup version, or with a sensor
- 10 year warranty (5 year for emergency & sensor versions).

### SPECIFICATIONS

<b>Materials:</b>	Lens & base - UV stabilised polycarbonate Clips - 304 stainless steel (316 also available)
<b>Fireproof rating:</b>	PC 850°C VI
<b>Weatherproof rating:</b>	IP66
<b>Impact resistance:</b>	IK08
<b>LED Colour:</b>	5700K daylight
<b>Operating temperature:</b>	-35 °C to 60°C
<b>Lumen/watt:</b>	130lm/W
<b>Power factor:</b>	0.98
<b>Working life:</b>	50,000 hours

<b>Emergency Version:</b>	
<b>Battery charge time:</b>	24 hours
<b>Discharge time:</b>	3 hours
<b>Sensor Version:</b>	
<b>Sensing range:</b>	5m max
<b>Sensing range options:</b>	100%, 75%, 30%, 25%
<b>Time delay:</b>	5/30/90 sec, 3/20/30min
<b>Daylight sensor:</b>	Disable, 50/30/10/2 lux
<b>Mounting height:</b>	3 - 6m
<b>Inductive/lighting load:</b>	200W max



### DIMENSIONS

Version	Length (mm)	Height (mm)	Width (mm)
20W	650	90	69
36W	1240	108	87



### LED WEATHERPROOF FITTINGS - OXFORD IP66 RANGE

Code	Description	Lumens	Packing	MOQ	Ctn
FLU-06020	Oxford IP66 LED Fitting - 20W	2600	1	1	9
FLU-06020-S	Oxford IP66 LED Fitting - 20W - With Sensor	2600	1	1	9
FLU-12036	Oxford IP66 LED Fitting - 36W	4680	1	1	6
FLU-12036-EB	Oxford IP66 LED Fitting - 36W - Emergency Version	4680/450 on battery	1	1	6
FLU-12036-S	Oxford IP66 LED Fitting - 36W - With Sensor	4680	1	1	6
FLU-OXCLIP/36	Oxford 316 Grade Stainless Steel Clips		12/pack	1 pack	1 pack



# LED WEATHERPROOF FITTINGS

## CAPRICORN IP65

DOMESTIC /  
TEMPORARY  
LIGHTING

### FEATURES & BENEFITS

- Sleek slimline design
- No lens clips required
- Quick wiring access point
- LED driver and LED chip SMD 2835
- SAA approved
- 3 year warranty.



### SPECIFICATIONS

<b>Materials:</b>	Lens & base - UV stabilised polycarbonate Mounting brackets - 304 stainless steel
<b>Weatherproof rating:</b>	IP65
<b>Vandal resistance:</b>	IK08
<b>Colour:</b>	6500K daylight
<b>Operating temperature:</b>	-20 °C to 40°C
<b>Lumen/watt:</b>	83lm/W (36W)
<b>Power factor:</b>	0.9



### DIMENSIONS

Code	Length (mm)	Height (mm)	Width (mm)
CAP-18WCW	600	86	66
CAP-36WCW	1180	86	66



### LED WEATHERPROOF FITTINGS - CAPRICORN IP65 RANGE

Code	Description	Lumens	Packing	MOQ	Ctn
CAP-18WCW	Capricorn IP65 LED Fitting - 600mm 18W	1500	1	1	12
CAP-36WCW	Capricorn IP65 LED Fitting - 1200mm 36W	3000	1	1	8

# BULKHEADS

## BABY EMPEROR

### FEATURES & BENEFITS

- UV stabilised
- Vandal resistant
- Slimline design
- Low energy consumption
- Installation fixings included
- 2 year warranty.

### SPECIFICATIONS

<b>Materials:</b>	Bulkhead - Polycarbonate Fasteners - Stainless steel Reflector - Aluminium
<b>Weatherproof rating:</b>	IP65
<b>Lamp types:</b>	ES
<b>Dimensions:</b>	260.7mm Ø x 70mm (H)
<b>Colour:</b>	White
<b>Lens:</b>	Opal
<b>Certification:</b>	IEC



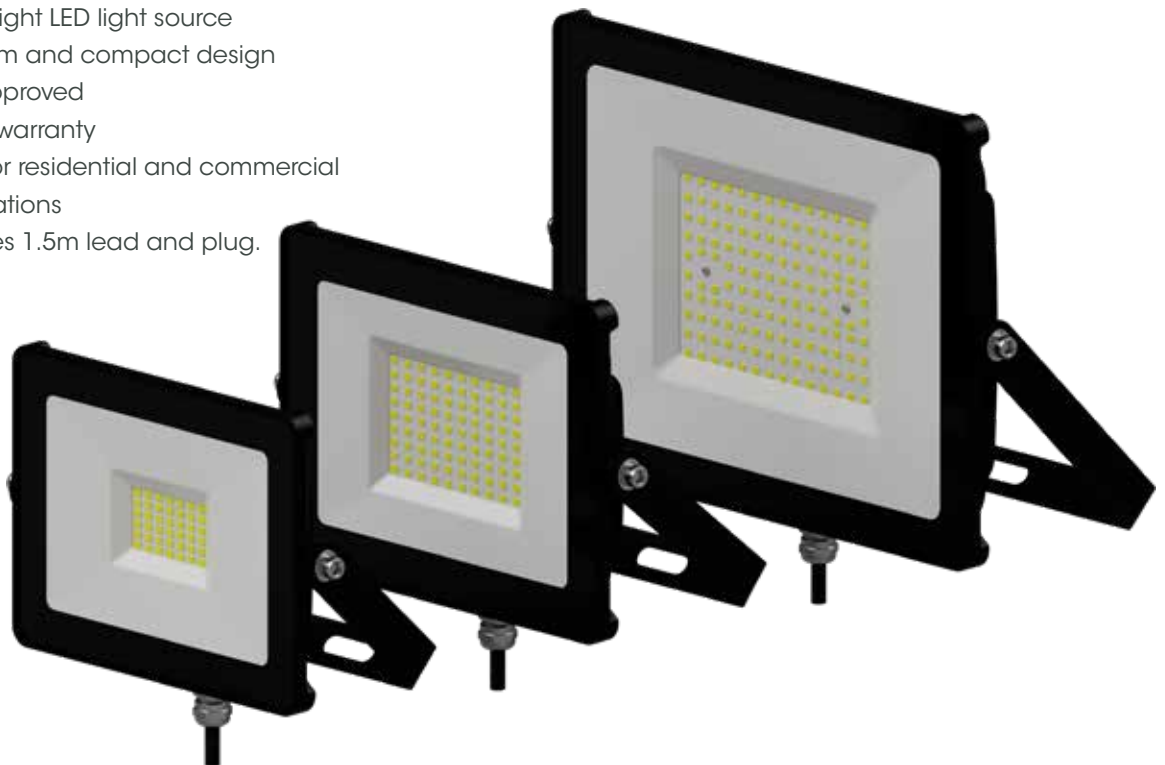
### BULKHEADS - BABY EMPEROR RANGE

Code	Description	Packing	MOQ	Ctn
FLU-27286	Bulkhead - Baby Emperor Round - Opal Lens	1	1	6

## SLIMLINE LED

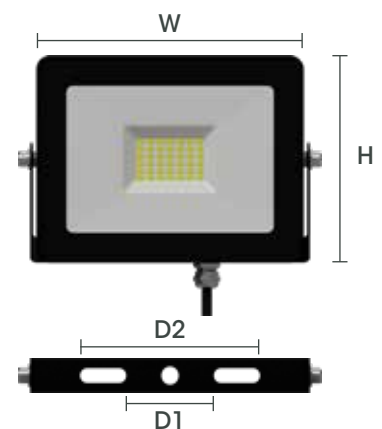
### FEATURES & BENEFITS

- Driverless LED
- Ultra bright LED light source
- Ultra slim and compact design
- SAA approved
- 2 year warranty
- Ideal for residential and commercial applications
- Includes 1.5m lead and plug.



### DIMENSIONS

Code	Width (mm)	Height (mm)	D1 (mm)	D2 (mm)
FL-30W-5800K	199	155	66	100
FL-50W-5800K	225	175	66	135
FL-100W-5800K	292	232	66	135
FL-150W-5800K	382	276	85	120
FL-200W-5800K	423	305	85	120



**IP65**  
WEATHERPROOF

**-20°C**  
to **55°C**  
OPERATING  
TEMPERATURE

**SAA**  
APPROVALS

**2 YEAR**  
WARRANTY

### FLOODLIGHTS - SLIMLINE LED RANGE

Code	Description	Lumens	Packing	MOQ	Ctn
FL-30W-5800K	Floodlight - Slimline LED - 30 Watt	2850	1	1	20
FL-50W-5800K	Floodlight - Slimline LED - 50 Watt	4750	1	1	18
FL-100W-5800K	Floodlight - Slimline LED - 100 Watt	9500	1	1	10
FL-150W-5800K	Floodlight - Slimline LED - 150 Watt	13500	1	1	5
FL-200W-5800K	Floodlight - Slimline LED - 200 Watt	18000	1	1	6

# LAMP HOLDER & 3 PIN PLUG + LEAD

## LAMP HOLDER - ES

### FEATURES & BENEFITS

- High heat resistance

### SPECIFICATIONS

#### Material

- DMC compound porcelain ceramic
- Type
- ES (E27)



### LAMP HOLDER RANGE

Code	Description	Packing	MOQ	Ctn
FLH-11211	Lamp Holder - Porcelain E.S. Non Skirted	40	1	400

## 3 PIN PLUG + LEAD

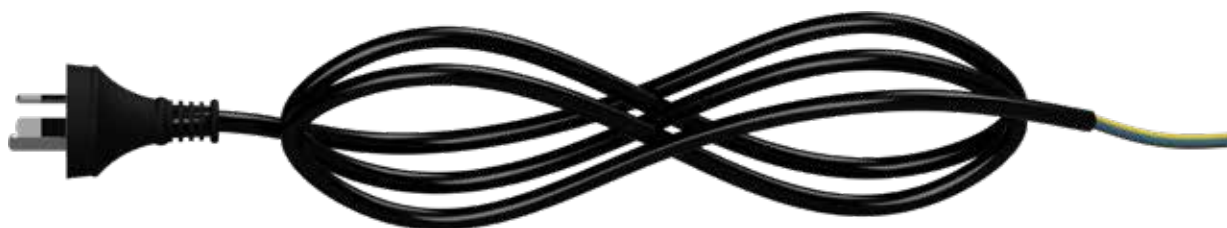
### FEATURES & BENEFITS

- AU approved
- 125 or 175cm lead options

### SPECIFICATIONS

#### Amp rating:

- 10 Amp



### 3 PIN PLUG + LEAD RANGE

Code	Description	Packing	MOQ	Ctn
FFP-15000	3 Pin Plug + Lead - 3 Core 10Amp - 175cm	10	10	60
FFP-15002	3 Pin Plug + Lead - 3 Core 10Amp - 125cm	10	10	80





# DAY / NIGHT SWITCHES





<b>HDAD</b> - SQUARE PROGRAMMABLE	88
<b>LR50</b> - RECESSED / INTERNAL	89
<b>LR100</b> - RECESSED / INTERNAL	90
<b>AR20N</b> - NEMA STYLE	91

# DAY/NIGHT SWITCH

## HDAD - SQUARE PROGRAMMABLE

### FEATURES & BENEFITS

- Adjustable on time and switching lux level
- Unique N/C 'fail on' circuitry
- Heavy duty design
- 1 year warranty.

### SPECIFICATIONS

<b>Materials:</b>	Lens - UV stable acrylic Fixings - Stainless steel
<b>Weatherproof rating:</b>	IP65
<b>Switch rating:</b>	15 Amps
<b>Voltage rating:</b>	200 - 250V
<b>Frequency:</b>	50/60Hz
<b>Rated current:</b>	Resistive - 15 Amps Inductive - 3600VA
<b>Switching cycles on resistive load:</b>	> 200 000
<b>Volt drop after 1000c at 1800VA load:</b>	< 100mV
<b>Adjustable switching lux level:</b>	20 - 200 Lux
<b>Minimum load:</b>	100mA
<b>Dimensions:</b>	82.5mm (H) x 82.5mm (W) x 54.5mm (D)



### DAY/NIGHT SWITCHES - HDAD RANGE

Code	Description	Packing	MOQ	Ctn
FSW-12220	Day/Night Switch - HDAD 15 Amp Square Programmable	1	1	30



# DAY/NIGHT SWITCHES

## LR50 - RECESSED INTERNAL

### SPECIFICATIONS

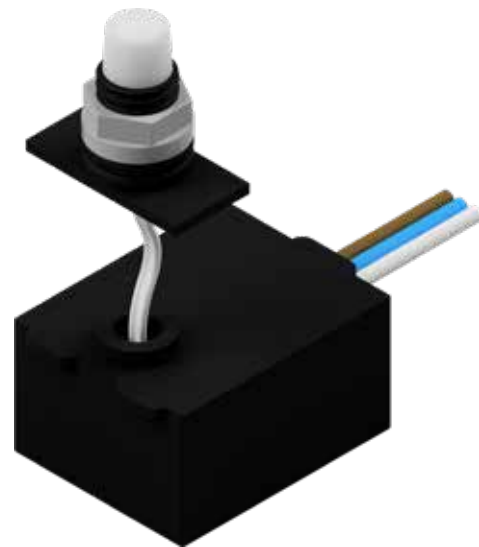
<b>Weatherproof rating:</b>	IP54
<b>Switch rating:</b>	10 Amps
<b>Voltage rating:</b>	200 - 250V
<b>Frequency:</b>	50Hz
<b>Rated current:</b>	Resistive - 10 Amps Inductive - 4 Amps
<b>Switching cycles on resistive load:</b>	> 200 000
<b>Volt drop after 1000c at 1800VA load:</b>	< 100mV
<b>Light intensity for switch ON:</b>	60 Lux
<b>Light intensity for switch OFF:</b>	90 Lux
<b>Cut out hole:</b>	9.5mm

### FEATURES & BENEFITS

- Unique N/C 'fail on' circuitry
- Compact design - Ideal for tight applications
- Designed for recess mounting, eg - Inside light fittings
- 1 year warranty.

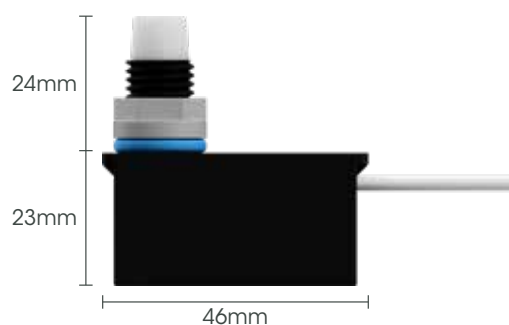


FSW-12207



FSW-12207-L

### DIMENSIONS



### DAY/NIGHT SWITCHES - LR50 RANGE

Code	Description	Packing	MOQ	Ctn
FSW-12207	Day/Night Switch - LR50 (10mm Male Entry)	1	1	10
FSW-12207-L	Day/Night Switch - LR50 with Sensor Extension	1	1	10

# DAY/NIGHT SWITCH

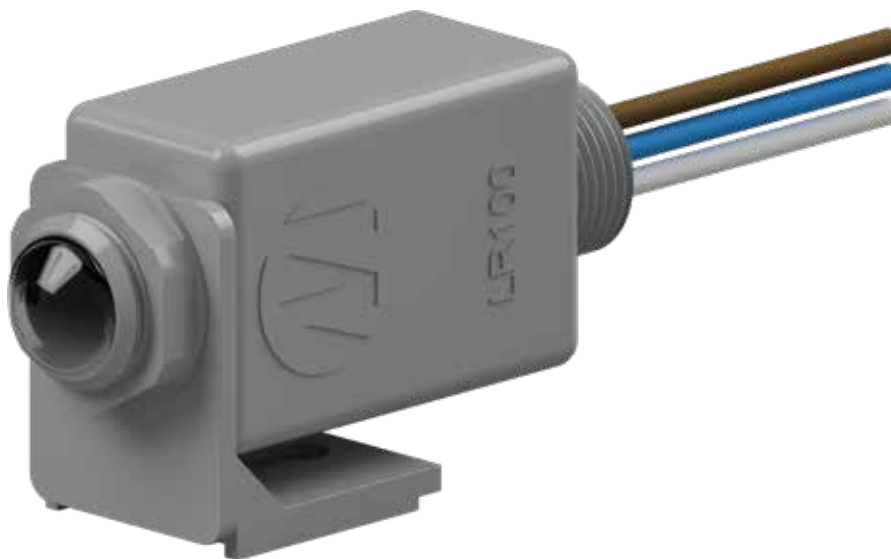
## LR100 - RECESSED INTERNAL

### SPECIFICATIONS

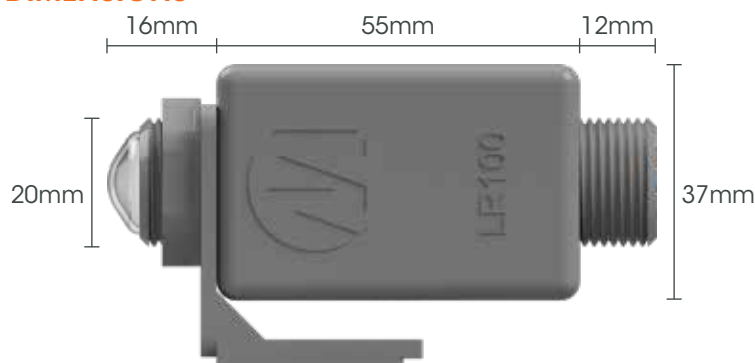
Weatherproof rating:	IP54
Switch rating:	15 Amps
Voltage rating:	200 - 250V
Frequency:	50Hz
Rated current:	Resistive - 15 Amps Inductive - 7 Amps
Switching cycles on resistive load:	> 200 000
Volt drop after 1000c at 1800VA load:	< 100mV
Light intensity for switch ON:	60 Lux
Light intensity for switch OFF:	90 Lux
Cut out hole:	20mm

### FEATURES & BENEFITS

- Unique N/C 'fail on' circuitry
- Designed for recess mounting, eg - Inside light fittings
- 1 year warranty.



### DIMENSIONS



### DAY/NIGHT SWITCHES - LR100 RANGE

Code	Description	Packing	MOQ	Ctn
FSW-12218	Day/Night Switch - LR100 (20mm Male Entry)	1	1	50

# DAY/NIGHT SWITCHES

## AR20N - NEMA STYLE

### FEATURES & BENEFITS - AR20N

- Unique N/C 'fail on' circuitry
- Heavy duty design - Ideal for street lighting
- Designed to NEMA spec
- 1 year warranty.

### SPECIFICATIONS - AR20N

<b>Materials:</b>	Lens - UV stable acrylic
<b>Weatherproof rating:</b>	IP56
<b>Switch rating:</b>	15 Amps
<b>Voltage rating:</b>	200 - 250V
<b>Frequency:</b>	50/60Hz
<b>Rated current:</b>	Resistive - 15 Amps Inductive - 7 Amps
<b>Switching cycles on resistive load:</b>	> 200 000
<b>Volt drop after 1000c at 1800VA load:</b>	< 100mV
<b>Light intensity for switch ON:</b>	60 Lux
<b>Light intensity for switch OFF:</b>	90 Lux

### FEATURES & BENEFITS - NEMA BASE

- Complete with gasket, lock nut and wall/ceiling mounting bracket
- Weather cap included
- Ideal for use with MATElec AR20 unit
- 1 year warranty.

### SPECIFICATIONS - NEMA BASE

<b>Materials:</b>	Base - Nylon 6
<b>Weatherproof rating:</b>	IP56 (When cap or lens installed)



### DIMENSIONS



### DAY/NIGHT SWITCHES - NEMA STYLE RANGE

Code	Description	Packing	MOQ	Ctn
FSW-12213	Day/Night Switch - AR20N Nema 15Amp	1	1	24
FSW-12209	Nema Socket Base	1	1	40



# WARNING EQUIPMENT





**SIRENS, ALARMS & BELLS**

94

**STROBES & FLASHING LIGHTS**

95

# SIRENS, ALARMS & BELLS

## FEATURES & BENEFITS

- Compact and robust
- UV protected
- Heavy duty for industrial applications.

## SPECIFICATIONS

### Waterproof rating

- Bells - IP44
- Screamer & buzzer - IP20.



## DIMENSIONS

Code	Height (mm)	Width (mm)	Depth (mm)	Mounting Hole Centres (mm)
FAL-10018	40	85	85	70
COM-30098	30	40	40	Flush Mount
COM-14010	45	150	150	12.2
COM-14011	55	200	200	12.2

## SIRENS, ALARMS & BELLS RANGE

Code	Description	Decibels	Packing	MOQ	Ctn
FAL-10018	Screamer - 12V Indoor	108dB	1	1	100
COM-30098	Buzzer - 12/24Vdc Panel / Ring Lock mount	80dB	1	1	200
COM-14010	Bell - Red Electronic	85dB	1	1	1
COM-14011	Bell - Large Red Electronic	85dB	1	1	1

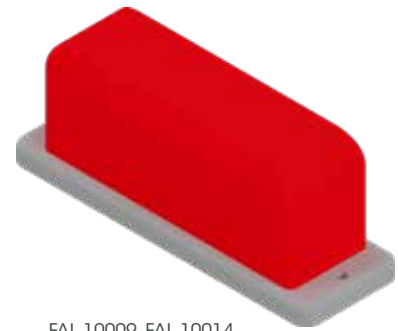
# STROBES/FLASHING LIGHTS

## FEATURES & BENEFITS

- Compact and robust
- UV protected
- Xenon lamp - highly effective
- LED technology (FAL-10012)
- Strobe guard suits up to 110mm Ø x 85mm (H) strobes.

## SPECIFICATIONS

- Waterproof rating
- IP54.



FAL-10009, FAL-10014



FAL-10001



FAL-10011



FAL-10012-R & FAL-10013

## DIMENSIONS

Code	Height (mm)	Width (mm)	Depth (mm)	Mounting Hole Centres (mm)
FAL-10011	46	46	42	25
FAL-10012-R FAL-10013	74	71	112	50
FAL-10009 FAL-10014	N/A	N/A	35	N/A
FAL-10001	45	44	95	26



FAL-10048

## STROBES/FLASHING LIGHTS RANGE

Code	Description	Packing	MOQ	Ctn
FAL-10011	Mini Strobe - 12Vdc Circular - Blue	1	1	100
FAL-10012-R	Mini Strobe - 24/12Vac/dc Circular - Red	1	1	100
FAL-10013	Mini Strobe - 240Vac Circular - Red	1	1	100
FAL-10009	Mini Strobe - 12Vdc Rectangular - Red	1	1	200
FAL-10014	Mini Strobe - 24Vdc Rectangular - Red	1	1	200
FAL-10001	Micro Strobe - Circular 12/24Vdc - Red	1	1	50
FAL-10048	Strobe Guard - Powdercoated	1	1	50



# LIQUID LEVEL CONTROL







<b>LEVEL SWITCHES &amp; SENSORS</b>	98
<b>LIQUID LEVEL ALARMS</b>	115
<b>UNDERSINK ALARM &amp; SHUT-OFF CONTROLLERS</b>	125
<b>TANK LEVEL CONTROL &amp; INDICATION</b>	127
<b>PUMP CONTROLLERS</b>	135
<b>RAIN/MAINS PUMP CONTROLLERS</b>	143
<b>HOT WATER CIRCULATION PUMP CONTROLLERS</b>	148
<b>AUXILIARY &amp; MONITORING EQUIPMENT</b>	151
<b>&amp; MUCH MORE...</b>	160

# FLOAT SWITCHES

## 9004 SERIES

### FEATURES

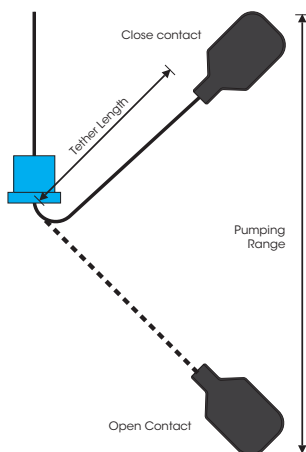
- Smooth, robust polypropylene switch housing reduces adhesion of foreign materials
- 'Sliding detent action' obviates wave induced oscillation, maintaining consistency in switching level accuracy
- Higher current rating of up to 10 Amps is ideal for heavier duty applications.

### SPECIFICATIONS

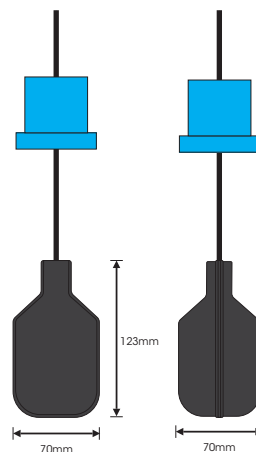
<b>Liquid temperature:</b>	Min 5°C (41°F), max 60°C (140°F)
<b>Protection:</b>	IP68 @ 9m (30ft) corrosion resistant
<b>Contact type:</b>	Mechanically activated, snap action N/O contacts
<b>Max voltage:</b>	240Vac 50/60Hz
<b>Max run current:</b>	10 Amps (COS 0)
<b>Cable material:</b>	Neoprene rubber
<b>Cable size:</b>	ø8mm / 2 x .75mm <sup>2</sup>
<b>Housing material:</b>	Polypropylene

### SETUP

- Secure cable at appropriate height to ensure desired switch levels are achieved
- The differential between switching 'On/Off' or 'Off/On' can be adjusted by moving the cable weight position relative to the float switch. The further the weight is situated from the float switch the greater the switching differential.



### DIMENSIONS



### FLOAT SWITCHES - 9004 RANGE

Code	Description	Cable length	Packing	MOQ	Ctn
FSW-12407	9004 NRB N/O Float Switch	1.5m	1	1	40
FSW-12408	9004 NRB N/O Float Switch	2.5m	1	1	60
FSW-12409	9004 NRB N/O Float Switch	6m	1	1	20
FSW-12410	9004 NRB N/O Float Switch	10m	1	1	15
FSW-12411	9004 NRB N/O Float Switch	15m	1	1	10
FSW-12412	9004 NRB N/O Float Switch	20m	1	1	10
FSW-12413	9004 NRB N/O Float Switch	30m	1	1	6
FSW-12414	9004 NRB N/O Float Switch	40m	1	1	5
FSW-12415	9004 NRB N/O Float Switch	50m	1	1	4



# FLOAT SWITCHES

## 9006 SERIES

### FEATURES

- Smooth, robust ABS switch housing reduces adhesion of foreign materials
- 'Sliding detent action' obviates wave induced oscillation, maintaining consistency in switching level accuracy.

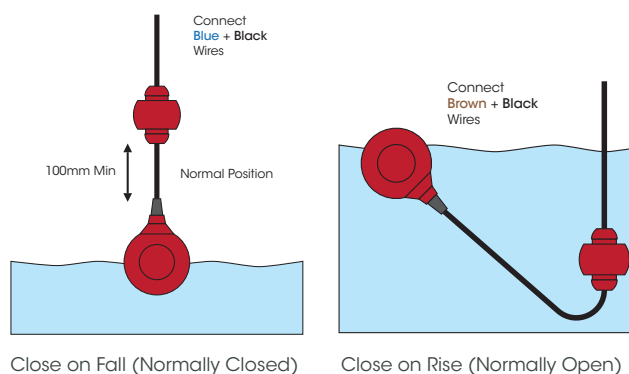
### SPECIFICATIONS

<b>Liquid temperature:</b>	Min 5 °C (41 °F) Max 60 °C (140 °F)	<b>Switching angle:</b>	25° (from horizontal)
<b>Liquid density:</b>	Min .65g/cm Max 1.5g/cm	<b>Max voltage:</b>	240Vac 50/60Hz
<b>Protection:</b>	IP68 @ 20m (65ft)	<b>Max run current:</b>	6 Amps (COS 0)
<b>Working pressure:</b>	.35MPa	<b>Cable material:</b>	Neoprene rubber
<b>Switching speed:</b>	600/min	<b>Cable size:</b>	ø7mm / 3 x .75mm <sup>2</sup>
<b>Contact life:</b>	10,000 switches	<b>Housing material:</b>	ABS - Acrylonine butadiene styrene
<b>Contact type:</b>	Microswitch with NO and NC contacts	<b>Chemical resistance:</b>	Acid - Good Alkaline - Good Petro - Good

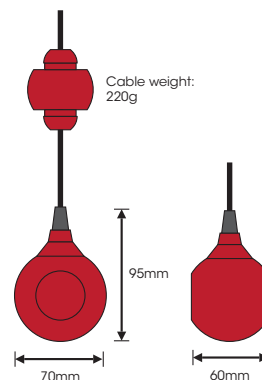
### SETUP

- Secure cable at appropriate height to ensure desired switch levels are achieved
- The differential between switching 'On/Off' or 'Off/On' can be adjusted by moving the cable weight position relative to the float switch. The further the weight is situated from the float switch the greater the switching differential.

### CONNECTION DIAGRAM



### DIMENSIONS



### FLOAT SWITCHES - 9006 RANGE

Code	Description	Cable length	Packing	MOQ	Ctn
FSW-12528	9006 NRB Float Switch	2.5m	1	1	25
FSW-12529	9006 NRB Float Switch	6m	1	1	20
FSW-12530	9006 NRB Float Switch	10m	1	1	14
FSW-12531	9006 NRB Float Switch	15m	1	1	10
FSW-12532	9006 NRB Float Switch	20m	1	1	9
FSW-12533	9006 NRB Float Switch	30m	1	1	6
FSW-12534	9006 NRB Float Switch	40m	1	1	5
FSW-12551	9006 NRB Float Switch	50m	1	1	4



# FLOAT SWITCHES

## 9010 SERIES

### FEATURES

- Smooth, robust ABS switch housing reduces adhesion of foreign materials
- 'Sliding detent action' obviates wave induced oscillation, maintaining consistency in switching level accuracy.

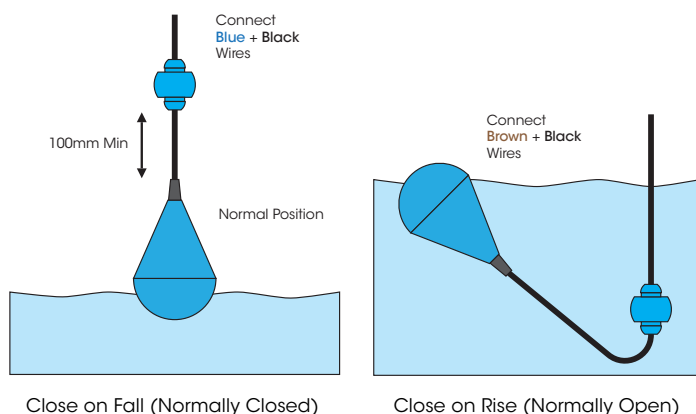
### SPECIFICATIONS

<b>Liquid temperature:</b>	Min 5 °C (41 °F) Max 60 °C (140 °F)	<b>Switching angle:</b>	20° (from horizontal)
<b>Liquid density:</b>	Min .65g/cm Max 1.5g/cm	<b>Max voltage:</b>	240Vac
<b>Protection:</b>	IP68 @ 20m (65ft)	<b>Max run current:</b>	6 Amps (COS 0)
<b>Working pressure:</b>	.35MPa	<b>Cable material:</b>	Neoprene rubber
<b>Switching speed:</b>	600/min	<b>Cable size:</b>	ø7mm / 3 x .75mm <sup>2</sup>
<b>Contact life:</b>	10,000 switches	<b>Housing material:</b>	ABS - Acrylonine butadiene styrene
<b>Contact type:</b>	Microswitch with NO and NC contacts	<b>Chemical resistance:</b>	Acid - Good Alkaline - Good Petro - Good

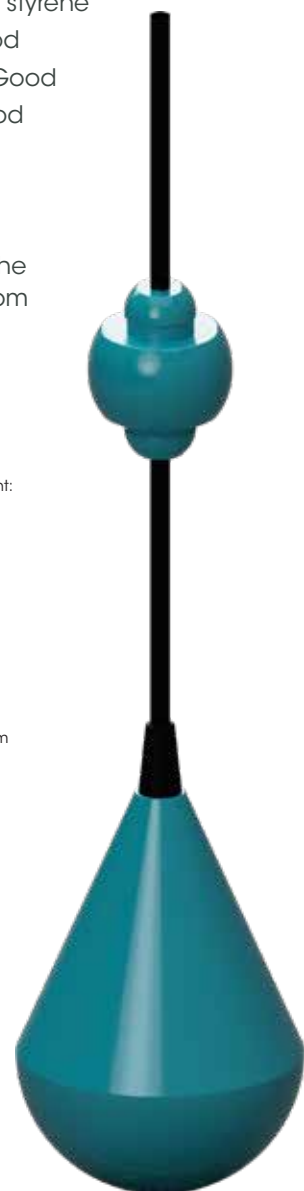
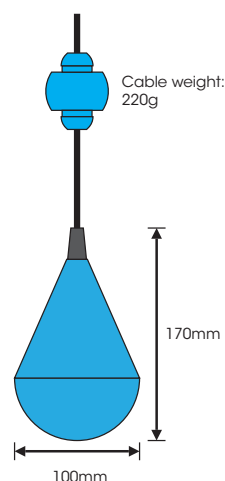
### SETUP

- Secure cable at appropriate height to ensure desired switch levels are achieved
- The differential between switching 'On/Off' or 'Off/On' can be adjusted by moving the cable weight position relative to the float switch. The further the weight is situated from the float switch the greater the switching differential.

### CONNECTION DIAGRAM



### DIMENSIONS



### FLOAT SWITCHES - 9010 RANGE

Code	Description	Cable length	Packing	MOQ	Ctn
FSW-12517	9010 NRB Float Switch	10m	1	1	10
FSW-12518	9010 NRB Float Switch	15m	1	1	10
FSW-12519	9010 NRB Float Switch	20m	1	1	10
FSW-12520	9010 NRB Float Switch	30m	1	1	5
FSW-12521	9010 NRB Float Switch	40m	1	1	5

# FLOAT SWITCHES

## 9011 SERIES

### FEATURES

- SUS304 Stainless steel switch housing makes the 9011 High Heat Float Switch ideal for high temperature applications
- Mechanically activated, snap action contact with wide switching angle
- Epoxy resin treatment to prevent water ingress into the float, providing excellent waterproof capability and extended life
- Includes cable weight for easy installation.

### SPECIFICATIONS

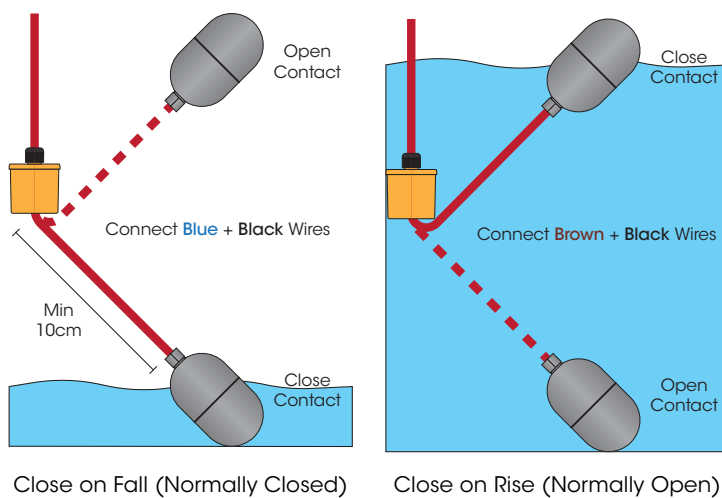
**Liquid temperature:** Max 125°C (257°F)  
**Protection:** IP68  
**Working pressure:** 2 kg/cm<sup>2</sup>  
**Specific gravity:** 0.6  
**Contact type:** Microswitch with NO, NC & common  
 - Black (common)  
 - Blue (close on fall/ normally closed)  
 - Brown (close on rise/ normally open)

**Contact form:** SPDT (single pole, double throw)  
**Switching angle:** 60° (30° from horizontal)  
**Max voltage:** 240 Vac  
**Max current:** 6 Amps  
**Cable material:** Silicone rubber  
**Cable size:** ø7.85mm  
**Housing material:** SUS304 Stainless Steel

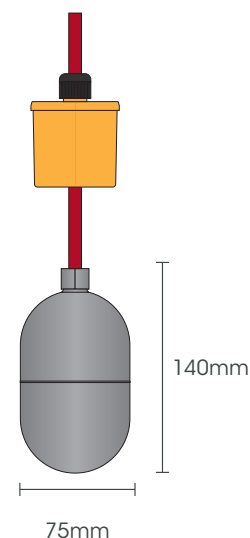
### SETUP

- Secure cable at appropriate height to ensure desired switch levels are achieved
- The differential between switching 'On/Off' or 'Off/On' can be adjusted by moving the cable weight position relative to the float switch. The further the weight is situated from the float switch the greater the switching differential.

### CONNECTION DIAGRAM



### DIMENSIONS



### FLOAT SWITCHES - 9011 HIGH HEAT RANGE

Code	Description	Cable length	Packing	MOQ	Ctn
FSW-12580	9011 SRB High Heat Float Switch	5m	1	1	1

# FLOAT SWITCHES

## MAGNETIC HORIZONTAL

### FEATURES

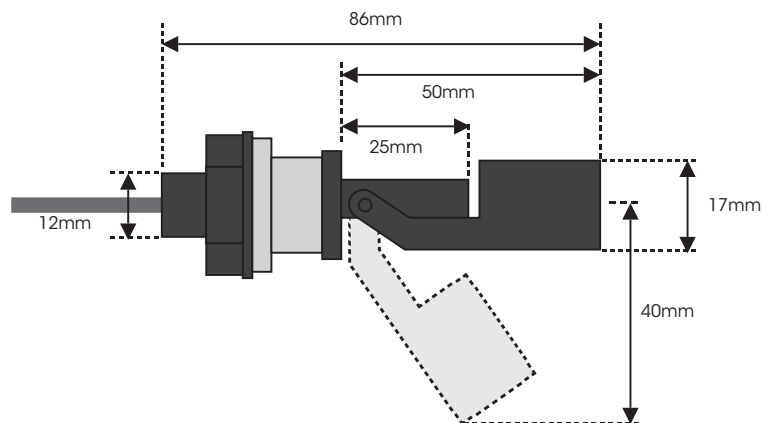
- High quality housing suitable for most liquids, such as oil and mild chemicals
- Fully immersible
- Ideal for water tank systems, such as rain or waste water management and activating boat bilge pumps
- Can be used to control pumps and electric valves when liquid level change
- Features a waterproof membrane which mounts on the inside of the tank.

### SPECIFICATIONS

<b>Switching current:</b>	0.5A DC	<b>Operate time:</b>	0.8mst
<b>Contact rating:</b>	1.5A @ 200VDC (max)	<b>Temperature rating:</b>	-30°C to 60°C
<b>Contact resistance:</b>	100 mΩ	<b>Lead details:</b>	Length: 4m
<b>Insulation resistance:</b>	1012 mΩ		Diameter: ø5.6mm
<b>Magnetic sensitivity:</b>	20 to 50 AT		Material: Polyethylene



### DIMENSIONS



### FLOAT SWITCH - MAGNETIC HORIZONTAL

Code	Description	Cable length	Packing	MOQ	Ctn
FSW-12565	Magnetic Horizontal Float Switch	4m	1	1	20

# FLOAT SWITCHES

## STAINLESS STEEL MAGNETIC

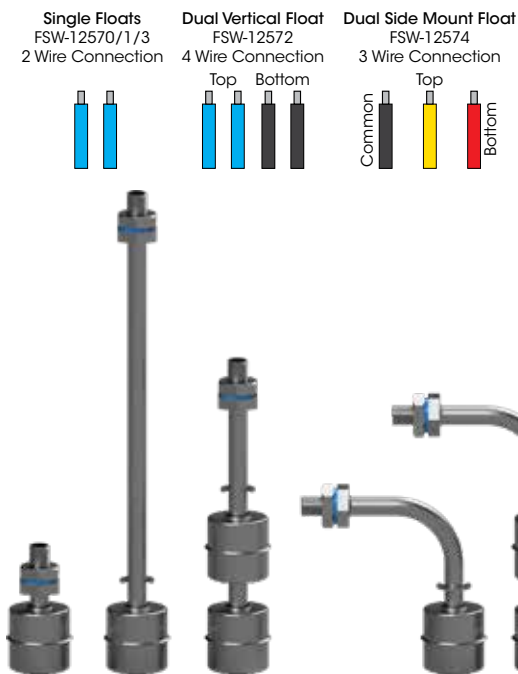
### FEATURES

- Single & Dual Point Options
- Magnetic Reed Switch Technology
- High Reliability / Repeatability Standards
- Direct Interface to Controllers
- High Temperature Rating
- High Pressure Rating
- Suitable for Corrosive Conditions
- Commonly used in food processing, medical, heating, and cooling equipment
- Includes approx 300mm of cable for connection
- Epoxy sealed cable outlet
- Gasket seal.

### SPECIFICATIONS

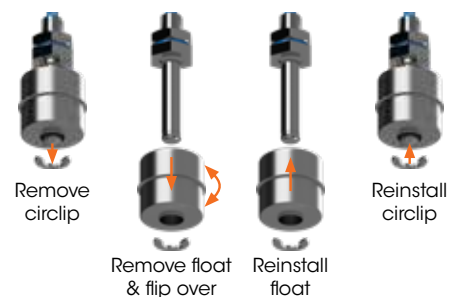
<b>Max Contact Rating:</b>	50W
<b>Max Switching Voltage:</b>	24V DC
<b>Max Switching Current:</b>	1.5A
<b>Max Breakdown Voltage:</b>	240V DC
<b>Max Carry Current:</b>	3.0A
<b>Max Contact Resistance:</b>	100mΩ
<b>Temperature Rating:</b>	5° to 60°
<b>Float Material:</b>	304SS
<b>Float Stem/Body Material:</b>	304SS
<b>Float SG:</b>	0.70
<b>Float Dimensions:</b>	28mm (W) x 26mm (H)
<b>Dual Float Differential:</b>	36mm
<b>Threaded connection:</b>	M10 x 1.6

### CONNECTIONS



### SWITCHING CONFIGURATION

The SS Magnetic Float Switches are configured to close on fall by default. If close on rise is required, remove the circlip below the float using a pair of pliers, flip the float upside down then reinstall the circlip.



### FLOAT SWITCHES - SS MAGNETIC RANGE

Code	Description	Height	Packing	MOQ	Ctn
FSW-12570	Single SS Float Switch - Short Stem Vertical	62mm	1	1	1
FSW-12571	Single SS Float Switch - Vertical	216mm	1	1	1
FSW-12572	Dual SS Float Switch - Long Stem Vertical	140mm	1	1	1
FSW-12573	Single SS Float Switch - Side Mounted	81mm	1	1	1
FSW-12574	Dual SS Float Switch - Side Mounted	130mm	1	1	1

# MULTI LEVEL FLOAT TREES

## 3 FLOAT

The Multi Float Tree is a unique combination of floats, configured in a way that minimises installation/setup time and overcomes the many issues associated with float switch installations.

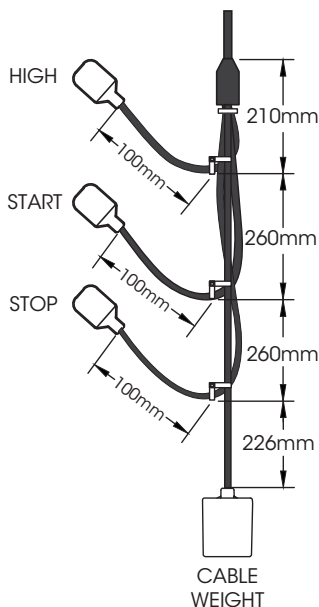
### FEATURES

- Resin falled/potted connection - Fully submersible
- Horizontal pivot point for switching accuracy and consistency
- Weighted - Obviating flow induced travel No more tangled floats
- No more setting up with conduits and ties
- No more trying to pull multiple float wires through undersized conduit
- No more trying to decipher which wires relate to which floats.

### SPECIFICATIONS

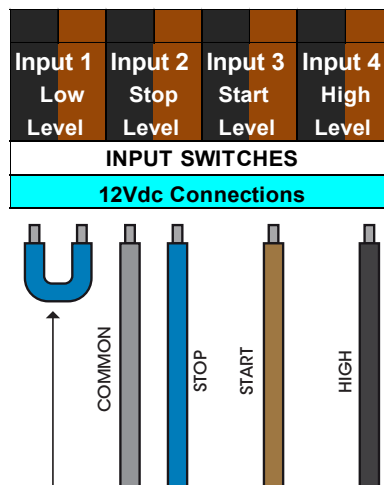
<b>Liquid temperature:</b>	Min 0°C (32°F), max 60°C (140°F)
<b>Protection:</b>	IP68
<b>Maximum depth:</b>	9m (30ft)
<b>Contact type:</b>	Mechanically activated, snap action N/O contacts (close on rise)
<b>Max voltage:</b>	250Vac 50/60Hz
<b>Max run current:</b>	6 Amps (resistive)
<b>Cable material:</b>	Floats - Neoprene rubber, Multicore - Polyvinyl chloride
<b>Multicore cable size:</b>	ø8mm / 4 x .75mm <sup>2</sup>
<b>Housing material:</b>	Polypropylene

### DIMENSIONS



### CONNECTIONS

These terminals are specific to MATElec Standard Single & Dual Pump Controllers



Input 1 should be looped if not in use

### MULTI-LEVEL FLOAT TREES - 3 FLOAT RANGE

Code	Description	Cable Length	Packing	MOQ	Ctn
FSW-12545	Multi Level Float Tree - 3 Float	10m	1	1	8
FSW-12547	Multi Level Float Tree - 3 Float	20m	1	1	5





# MULTI LEVEL FLOAT TREES

## 4 FLOAT

The Multi Float Tree is a unique combination of floats, configured in a way that minimises installation/setup time and overcomes the many issues associated with float switch installations.

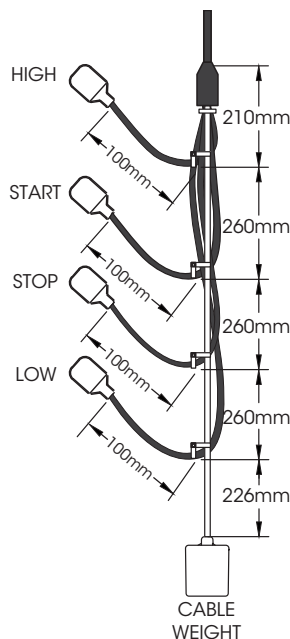
### FEATURES

- Resin falled/potted connection - Fully submersible
- Horizontal pivot point for switching accuracy and consistency
- Weighted - Obviating flow induced travel No more tangled floats
- No more setting up with conduits and ties
- No more trying to pull multiple float wires through undersized conduit
- No more trying to decipher which wires relate to which floats.

### SPECIFICATIONS

<b>Liquid temperature:</b>	Min 0°C (32°F), max 60°C (140°F)
<b>Protection:</b>	IP68
<b>Maximum depth:</b>	9m (30ft)
<b>Contact type:</b>	Mechanically activated, snap action N/O contacts (close on rise)
<b>Max voltage:</b>	250Vac 50/60Hz
<b>Max run current:</b>	6 Amps (resistive)
<b>Cable material:</b>	Floats - Neoprene rubber, Multicore - Polyvinyl chloride
<b>Multicore cable size:</b>	ø8mm / 5 x .75mm <sup>2</sup>
<b>Housing material:</b>	Polypropylene

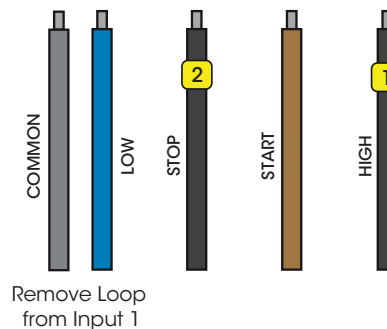
### DIMENSIONS



### CONNECTIONS

These terminals are specific to MATElec Standard Single & Dual Pump Controllers

Input 1	Input 2	Input 3	Input 4
Low Level	Stop Level	Start Level	High Level
<b>INPUT SWITCHES</b>			
<b>12Vdc Connections</b>			



### MULTI-LEVEL FLOAT TREES - 4 FLOAT RANGE

Code	Description	Cable Length	Packing	MOQ	Ctn
FSW-12548	Multi Level Float Tree - 4 Float	20m	1	1	5



# CONDUCTIVITY SENSING PROBE

## SINGE POINT

### FEATURES

- Designed and manufactured with a single preset, stainless steel sensing point
- Typically set up in conjunction with conductivity sensing relays, which would interface with a pump control circuit
- Can be used in a wide range of applications including potable, grey, black, storm and rain water
- While the probe has no serviceable parts, a periodic wipe down is recommended to maintain optimal performance.

### SPECIFICATIONS

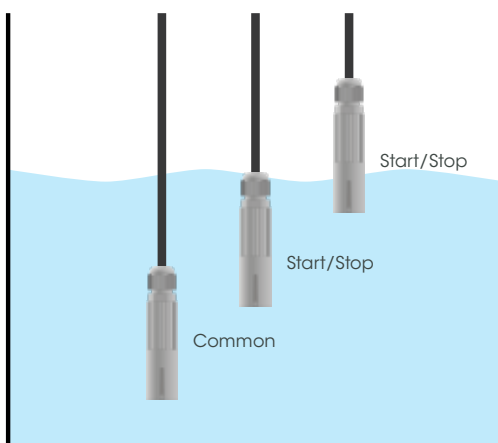
<b>Mounting:</b>	Directly into liquid (submersible)
<b>Weight:</b>	45 grams
<b>Operating Temperature:</b>	0°C - 75°C
<b>Materials:</b>	Housing: ABS Cable: Submersible rubber Sensing points: 304 stainless steel

### DIMENSIONS

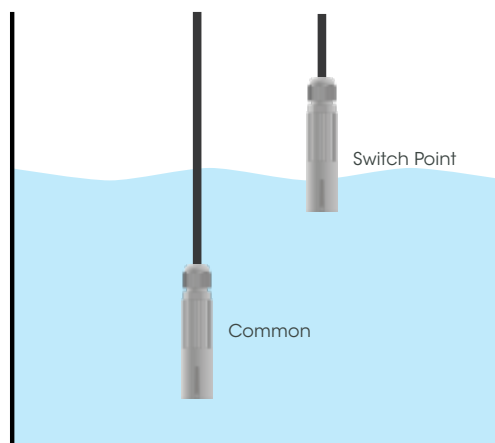


### APPLICATIONS

#### For differential switching



#### For point sensing



### CONDUCTIVITY SENSING PROBES - SINGLE POINT RANGE

Code	Description	Cable length
FPC-12521	Conductivity Sensing Probe - Single Point	10m

# CONDUCTIVITY SENSING PROBE

## 4 POINT

### FEATURES

- Designed and manufactured with 4 preset, stainless steel sensing points. These are typically used as common, stop, start and high level
- The probe would normally be set up in conjunction with conductivity sensing relays, which would interface with a pump control circuit
- Can be used in a wide range of applications including potable, grey, black, storm and rain water
- While the probe has no serviceable parts, a periodic wipe down is recommended to maintain optimal performance.

### SPECIFICATIONS

**Materials:** Pipe - UV resistant PVC  
 Sensors - 316 stainless steel  
 Cable - Submersible rubber  
 Filler - Epoxy resin

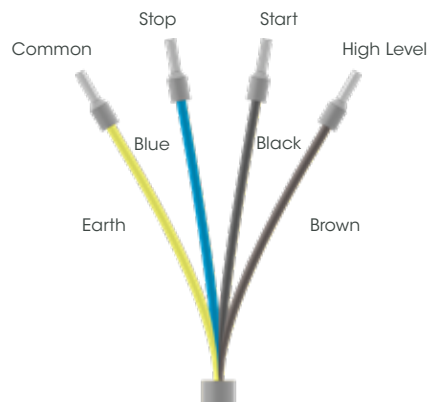
### DIMENSIONS

Code	Length A (mm)	B (mm)	Spacing C (mm)	Spacing D (mm)	E (mm)
FPC-12530	225	55	50	50	30
FPC-12531	325	55	100	100	30
FPC-12532	425	55	150	150	30
FPC-12533	725	55	300	300	30
FPC-12534 & FPC-12535	925	55	500	300	30

### INSTALLATION

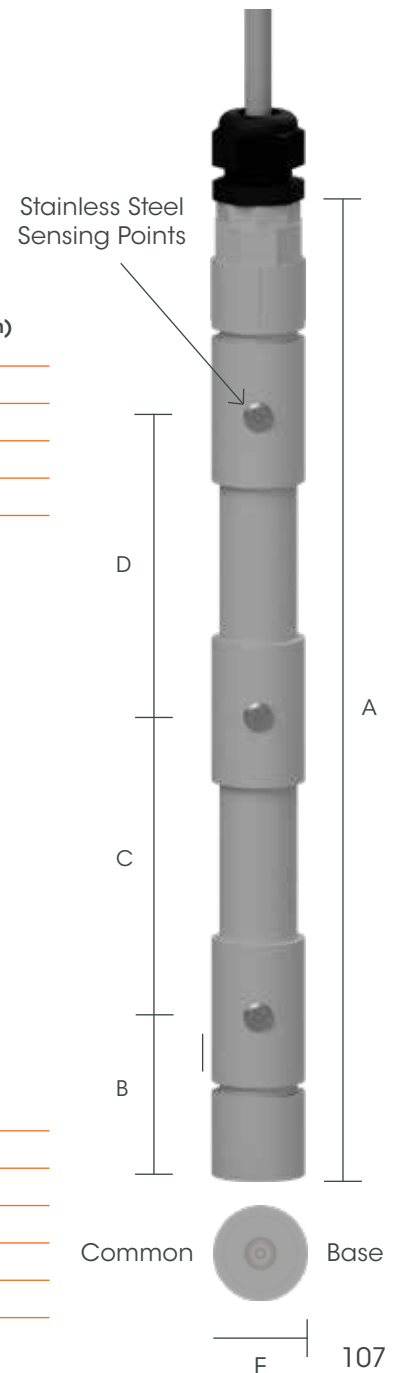


### CONNECTION



### CONDUCTIVITY SENSING PROBES - 4 POINT RANGE

Code	Description	Cable length
FPC-12530	Conductivity Sensing Probe - 4 Point - 200mm	10m
FPC-12531	Conductivity Sensing Probe - 4 Point - 300mm	10m
FPC-12532	Conductivity Sensing Probe - 4 Point - 400mm	10m
FPC-12533	Conductivity Sensing Probe - 4 Point - 700mm	10m
FPC-12534	Conductivity Sensing Probe - 4 Point - 900mm	10m
FPC-12535	Conductivity Sensing Probe - 4 Point - 900mm	20m



# CONDUCTIVITY SENSING PROBE

## 10 POINT

### FEATURES

- Designed and manufactured with 10 preset, stainless steel sensing points.
- The probe would normally be set up in conjunction with conductivity sensing relays, which would interface with a pump control circuit
- Can be used in a wide range of applications including potable, grey, black, storm and rain water.
- While the probe has no serviceable parts, a periodic wipe down is recommended to maintain optimal performance.

### SPECIFICATIONS

**Materials:** Pipe - UV resistant PVC  
 Sensors - 316 stainless steel  
 Cable - Submersible PVC  
 Filler - Epoxy resin

### DIMENSIONS

Code	Length A (m)	B (mm)	Spacing C (mm)	D (mm)
FPC-12536	1	55	100	30
FPC-12537	1.5	55	30	

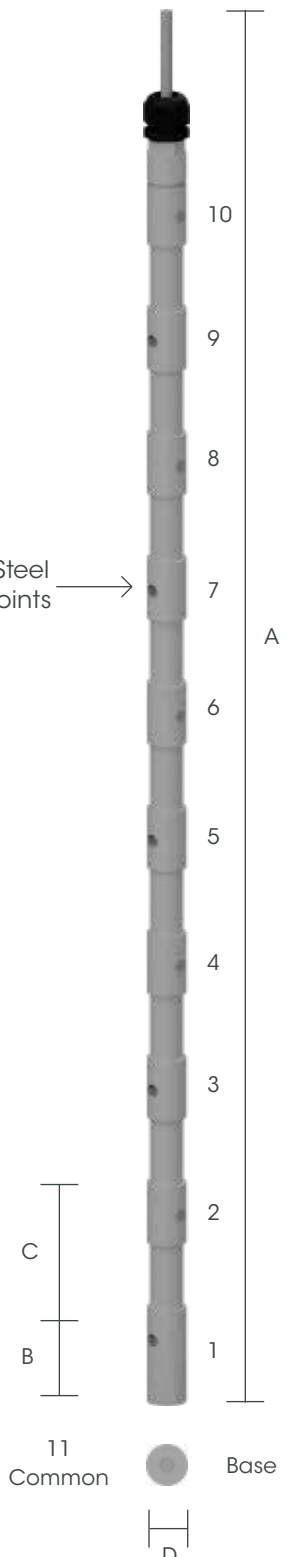
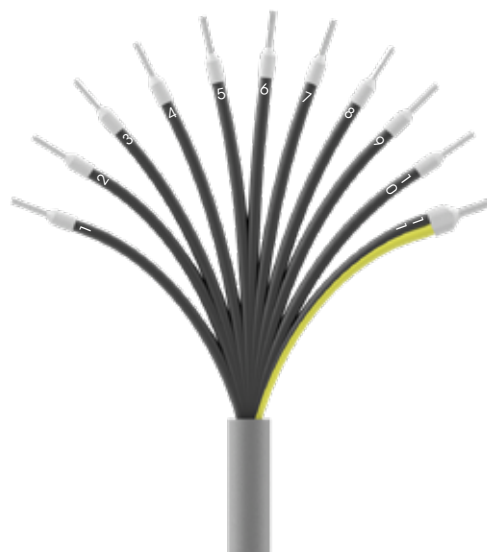
Stainless Steel Sensing Points →

### INSTALLATION



### CONNECTION

Conductors are numbered and correspond with the numbered sensing points on the image to the right.



### CONDUCTIVITY SENSING PROBES - 10 POINT RANGE

Code	Description	Cable length
FPC-12536	Conductivity Sensing Probe - 10 Point - 1m	10m
FPC-12537	Conductivity Sensing Probe - 10 Point - 1.5m	10m

# HYDROSTATIC LEVEL TRANSDUCER

## POTABLE WATER

### FEATURES

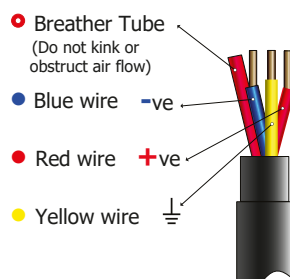
- Excellent repeatability and long term stability
- Excellent anti-interference ability
- Measure depth or level measurement in potable, raw, ground and rain water applications (not suitable for sewage or wastewater applications).

### SPECIFICATIONS

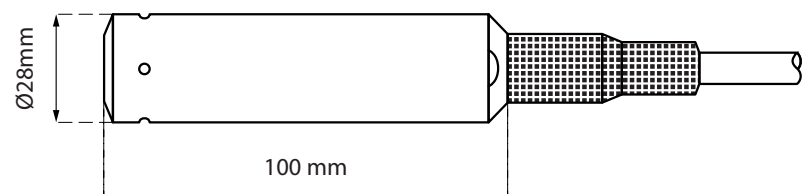
<b>Overload Pressure:</b>	1.5 times full scale
<b>Accuracy:</b>	± 0.5% F.S
<b>Supply Voltage:</b>	12-30Vdc, 24 Vdc
<b>Output Signals:</b>	4-20mA
<b>Response Time:</b>	10ms
<b>Temperature Ranges:</b>	Compensated: 0°C - 50°C Media: -10°C - 70°C Environment: -30°C - 85°C Storage: -40°C - 125°C
<b>Temperature Compensation:</b>	0.02% F.S./°C
<b>Electrical Connection:</b>	3 Wires, Breather Tube
<b>Protection Classification:</b>	Sensor is IP68
<b>Vibration:</b>	20g ; 20-5000Hz
<b>Housing Material:</b>	316 Stainless Steel
<b>Operating Life:</b>	>1x10 <sup>8</sup> Pressure Cycles
<b>Cable Details:</b>	Diameter: Ø7.5mm OD Material: PUR Polyurethane



### CONNECTION DIAGRAM



### DIMENSIONS



### HYDROSTATIC LEVEL TRANSDUCERS - POTABLE WATER RANGE

Code	Description	Depth Range	Cable Length
FPC-12571	Hydrostatic Level Transducer - Potable Water	0 - 10 m	24m
FPC-12571-10	Hydrostatic Level Transducer - Potable Water	0 - 10 m	10m
FPC-12571-E	Hydrostatic Level Transducer - Potable Water	0 - 4 m	24m
FPC-12573-E	Hydrostatic Level Transducer - Potable Water	0 - 1 m	24m

# HYDROSTATIC LEVEL TRANSDUCER

## SEWAGE / WASTE WATER

### FEATURES

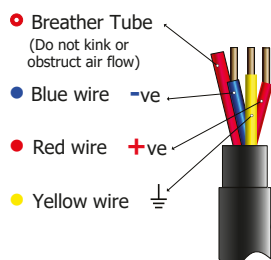
- Excellent repeatability and long term stability
- Excellent anti-interference ability
- Measure depth or level measurement in potable, raw, ground and rain water, sewage and wastewater applications.

### SPECIFICATIONS

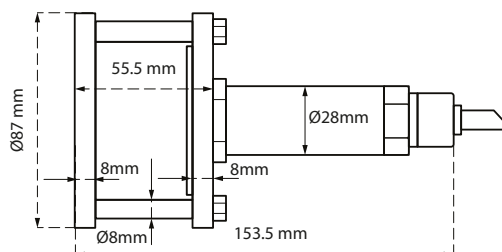
<b>Overload Pressure:</b>	1.5 times full scale
<b>Accuracy:</b>	± 0.5% F.S
<b>Supply Voltage:</b>	12-30Vdc, 24 Vdc
<b>Output Signals:</b>	4-20mA
<b>Response Time:</b>	10ms
<b>Temperature Ranges:</b>	Compensated: 0°C - 50°C Media: -10°C - 70°C Environment: -30°C - 85°C Storage: -40°C - 125°C
<b>Temperature Compensation:</b>	0.02% F.S./°C
<b>Electrical Connection:</b>	3 Wires, Breather Tube
<b>Protection Classification:</b>	Sensor is IP68
<b>Vibration:</b>	20g ; 20-5000Hz
<b>Housing Material:</b>	316 Stainless Steel
<b>Operating Life:</b>	>1x10 <sup>8</sup> Pressure Cycles
<b>Cable Details:</b>	Diameter: Ø7.5mm OD Material: PUR Polyurethane



### CONNECTION DIAGRAM



### DIMENSIONS



### HYDROSTATIC LEVEL TRANSDUCERS - SEWAGE RANGE

Code	Description	Depth Range	Cable Length
FPC-12569-10	Hydrostatic Level Transducer - Sewage	0 - 1 m	10m
FPC-12570	Hydrostatic Level Transducer - Sewage	0 - 10 m	24m
FPC-12570-10	Hydrostatic Level Transducer - Sewage	0 - 10 m	10m
FPC-12570-30	Hydrostatic Level Transducer - Sewage	0 - 10 m	30m
FPC-12572-10	Hydrostatic Level Transducer - Sewage	0 - 2.5 m	10m
FPC-12575-10	Hydrostatic Level Transducer - Sewage	0 - 4 m	10m
FPC-12575-30	Hydrostatic Level Transducer - Sewage	0 - 4 m	30m
FPC-12575-50	Hydrostatic Level Transducer - Sewage	0 - 4 m	50m
FPC-12575-E	Hydrostatic Level Transducer - Sewage	0 - 4 m	24m

# PRESSURE TRANSDUCER

## FEATURES

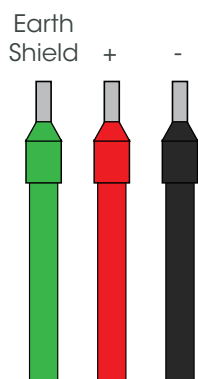
- Designed to be mounted in a pipe to measure pressure, providing a precise 4-20mA reading
- Small body diameter
- Excellent repeatability and long term stability
- Excellent anti-interference ability
- Suitable for use in raw, rain, potable and ground water applications.

## SPECIFICATIONS

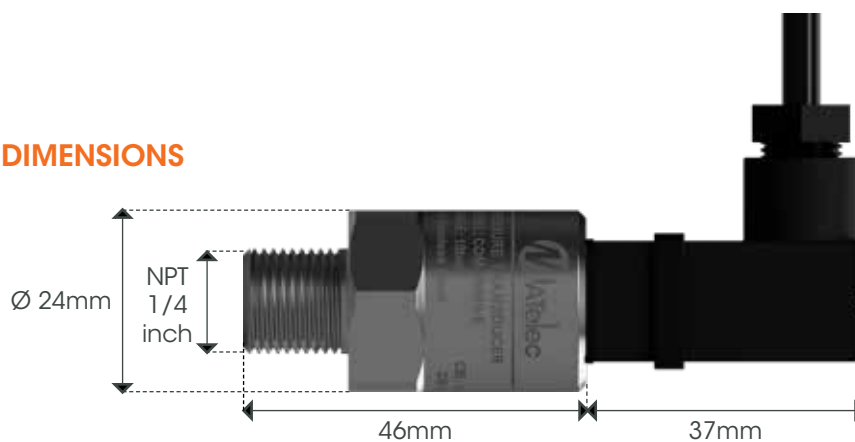
<b>Overload Pressure:</b>	1.5 times full scale
<b>Accuracy:</b>	± 1.0% FS
<b>Supply Voltage:</b>	12-30Vdc loop powered
<b>Output Signals:</b>	4-20mA analogue
<b>Response Time:</b>	10ms
<b>Working Temperature:</b>	-20°C - 80°C
<b>Pressure Connection:</b>	NPT 1/4 inch
<b>Electrical Connection</b>	3 wires
<b>Protection Rating:</b>	IP66
<b>Housing Material:</b>	316 stainless steel
<b>Operating Life:</b>	>1x10 pressure cycles



## CONNECTION DIAGRAM



## DIMENSIONS



## PRESSURE TRANSDUCER RANGE

Code	Description	Pressure Range	Cable Length
COM-30608-4BAR	Pressure Transducer	0-4bar (0-400kPa)	3m
COM-30609-E	Pressure Transducer	0-10bar (0-1000kPa)	3m
COM-30608-E	Pressure Transducer	0-16bar (0-1600kPa)	3m
COM-30604-E	Pressure Transducer	0-25bar (0-2500kPa)	3m

# TRANSDUCER HANGING BRACKET

## FPC-12568

### FEATURES

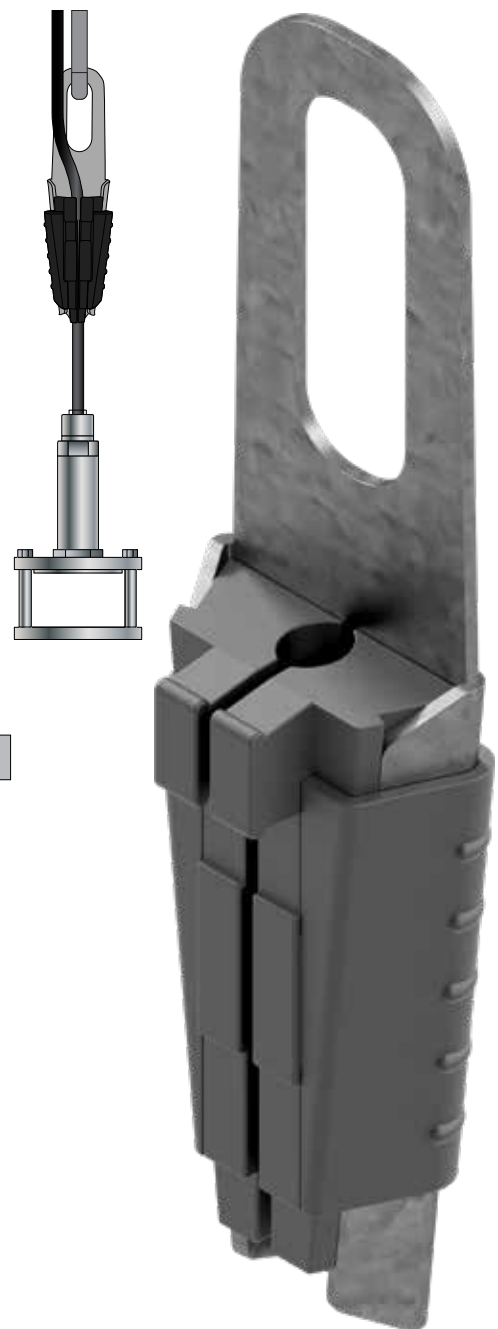
- Designed to provide a simple and effective solution to hang hydrostatic level transducers in the correct position in a tank
- Applies even pressure to the transducer cable, ensuring the internal breather tube is not deformed or kinked in any way.

### SPECIFICATIONS

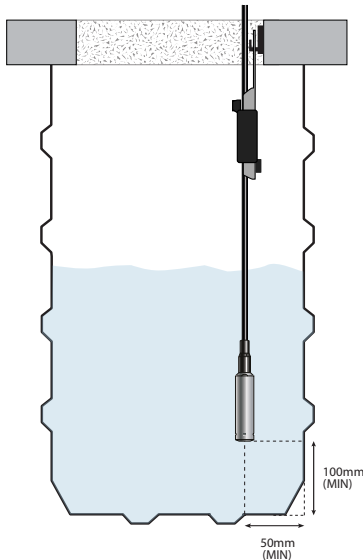
**Materials:** Back plate: Stainless steel  
Clamp & body: Nylon 6

### INSTALLATION

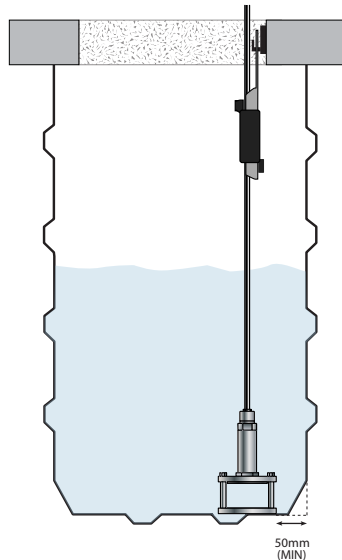
1. Ensure hook or similar bracket (supplied by others) is installed in the tank for the clamp to hang from
2. Move nylon clamps up and place cable in cable groove
3. Move clamps down to ensure cable is securely held in place
4. Hang bracket on hook
5. Ensure transducer position is correct (see diagram below). The weight of the transducer will ensure the clamps continue to hold the cable
6. Excess transducer cable must be coiled neatly to ensure no kinks obstruct internal air tube.



Potable Water Transducer



Sewage Transducer



### TRANSDUCER HANGING BRACKET

Code	Description
FPC-12568	Transducer Hanging Bracket



# BREATHABLE WATERPROOF JUNCTION BOX

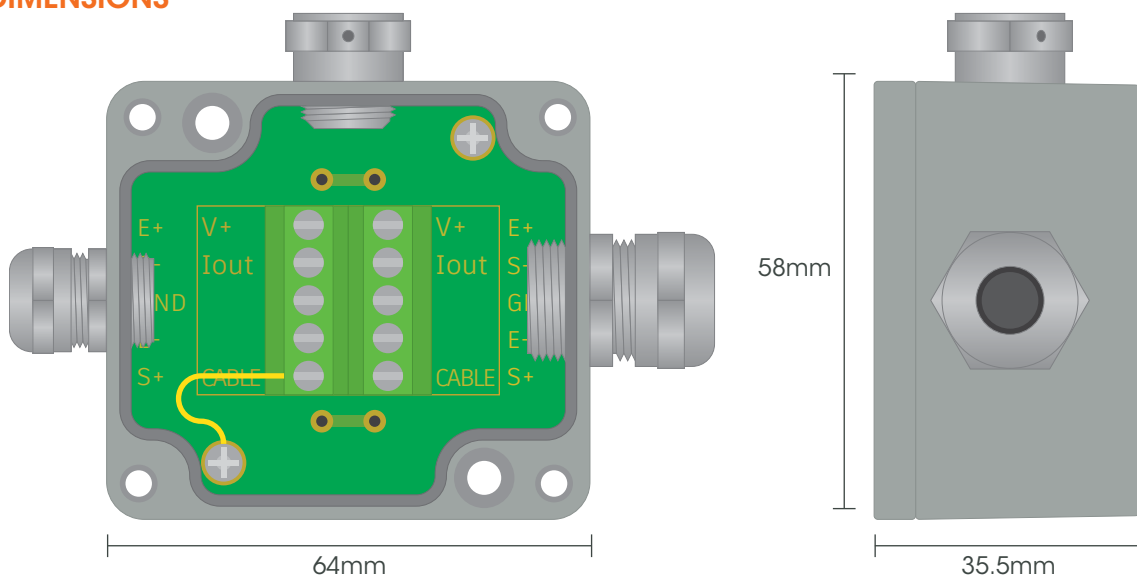
## COM-30632

### FEATURES

- The MATElec robust and breathable, waterproof junction box is designed for connecting cables in a wide range of environments
- Aluminium housing giving substantial mechanical protection for cable connections
- Ideal for connecting 4-20mA signal cables from hydrostatic level transducers
- Breather vent maintains atmospheric pressure reference for the sensor
- Earth shield connection to metallic housing maintains shield continuity over the cable junction.



### DIMENSIONS



### BREATHABLE WATERPROOF JUNCTION BOX

Code	Description
COM-30632	Breathable Waterproof Cable Junction Box

# IP68 WATERPROOF CABLE CONNECTORS

## SPECIFICATIONS

**Grommet:** TPE - V  
**Gasket:** Silicone  
**Tube:** PA66 UL 94 V2  
**Glands:** PA66 UL 94 V2  
**Screws:** Zinc passivated steel

**Connector:** Nickel plated brass  
**Current Rating:** 3 Pole - 32 Amps, 240 Vac  
 5 Pole - 32 Amps, 415 Vac  
**Temperature Rating:** 85 °C  
**IP Protection:** IP68

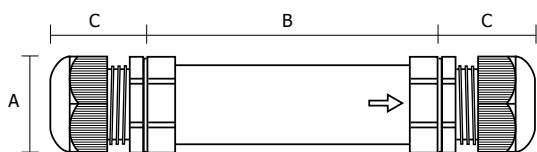


## CABLE SIZING

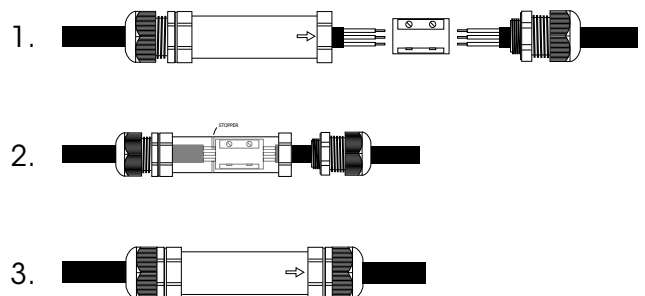
	Min Cable OD (mm)	Max Cable OD (mm)
3 Pole	3.7	8.1
5 Pole	5	11.9

## DIMENSIONS

	A (mm)	B (mm)	C (mm)
3 Pole	25	67.5	30
5 Pole	30	67.5	35



## INSTALLATION



## IP68 WATERPROOF CABLE CONNECTORS RANGE

Code	Description	Packing	MOQ	Ctn
FCN-16245	IP68 Waterproof Cable Connector - 3 Pole 32 Amp	1	1	10
FCN-16250	IP68 Waterproof Cable Connector - 5 Pole 32 Amp	1	1	10

# LIQUID LEVEL ALARM

## STANDARD

MATElec Australia's Liquid Level Alarm is designed to provide warning indication and alarm when a water storage tank is either empty or full. Housed in a robust polycarbonate enclosure, the Standard version features an audible alarm and a keypad interface with status indicator lights and alarm mute button.



### HARDWARE FEATURES

#### Enclosure:

- IP54 rated, polycarbonate enclosure

#### Protection:

- Low voltage control and input circuitry

#### Control & interface:

- Audible (buzzer) alarm
- Level alarm keypad interface:
- Indicator lights for power on, level alarm
- Alarm mute/reset/test button
- Level alarm PCB control module

#### Inputs:

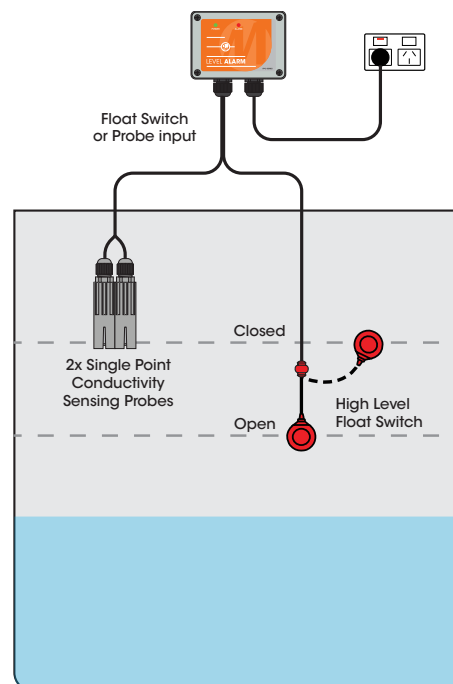
- Single phase (230Vac) power supply
- Digital 12Vdc input for float switch or conductivity probes

#### Outputs:

- BMS volt free output for common fault (NO & NC)

#### Included with panel:

- 10 Amp 3 pin 1m power supply lead.



### FUNCTIONS

- **Level alarm** - Provides warning indication and alarm when a water storage tank is empty or full
- **Auto-silencing alarm** - If not muted, the buzzer will silence after 5 minutes, then sound briefly every 5 minutes (this feature can be disabled if a continuous alarm is required).

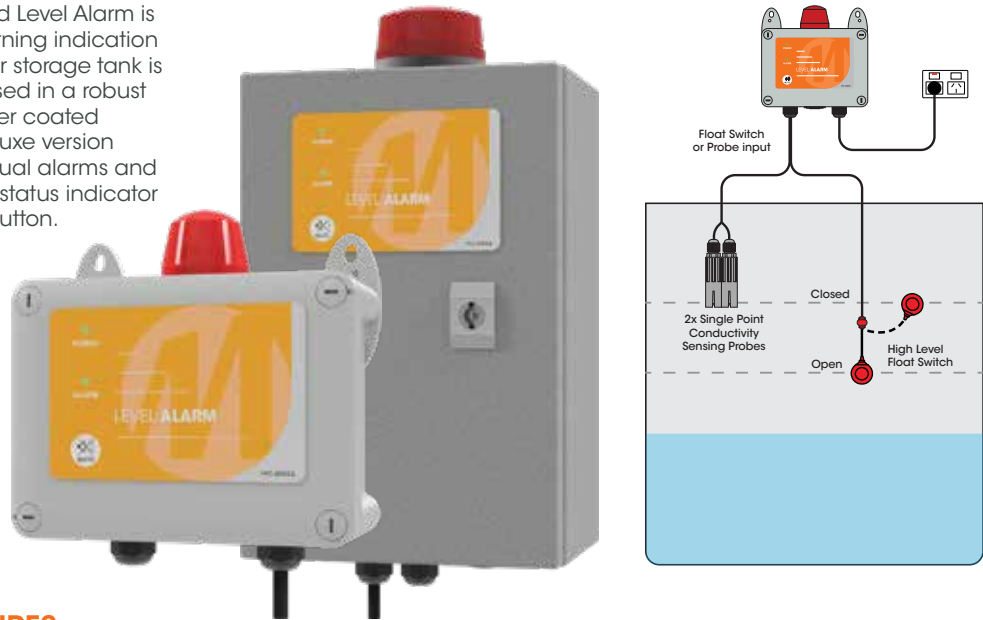
### LIQUID LEVEL ALARM - STANDARD

Code	Description	Enclosure Size
FPC-12650	Liquid Level Alarm - Standard	125x90x60mm

# LIQUID LEVEL ALARM

## DELUXE

MATElec Australia's Liquid Level Alarm is designed to provide warning indication and alarm when a water storage tank is either empty or full. Housed in a robust polycarbonate or powder coated metal enclosure, the Deluxe version features audible and visual alarms and a keypad interface with status indicator lights and alarm mute button.



### HARDWARE FEATURES

#### Enclosure:

- IP54 rated, polycarbonate enclosure with mounting brackets, or:
- P54 rated, powder coated mild steel enclosure with removable gland plate for heavy duty applications (metal enclosure version)

#### Protection:

- Low voltage control and input circuitry
- No hard wiring required for FPC-12651-FS and FPC-12651-QP

#### Control & interface:

- Visual (strobe) and audible (buzzer) alarms
- Level alarm keypad interface:
  - Indicator lights for power on, level alarm
  - Alarm mute/reset/test button
- Level alarm PCB control module

#### Inputs:

- Single phase (230Vac) power supply (12Vdc version available)
- Digital 12Vdc input for float switch or conductivity probes

#### Outputs:

- BMS volt free output for common fault (NO & NC)

#### Included with panel:

- 10 Amp 3 pin 1m power supply lead (for mains powered versions)
- Pre hard-wired 9006 float switch with 10m cable (FPC-12651-FS only)
- 9006 float switch with 10m cable and quick plug connector (FPC-12651-QP only).

### FUNCTION FEATURES

- **Level alarm** - Provides warning indication and alarm when a water storage tank is either empty or full (high level only for -FS & -QP versions)
- **Auto-silencing alarm** - If not muted, the buzzer will automatically silence after 5 minutes (this feature can be disabled if a continuous alarm is required).

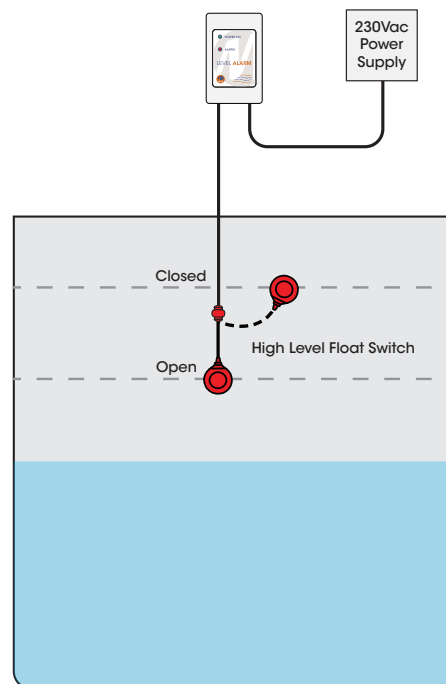
### LIQUID LEVEL ALARMS - DELUXE RANGE

Code	Description	Enclosure Size
FPC-12651	Level Alarm - Deluxe	175x130x80mm
FPC-12651-FS	Level Alarm - Deluxe - With Hard Wired Float Switch	175x130x80mm
FPC-12651-QP	Level Alarm - Deluxe - With Quick Plug Float Switch	175x130x80mm
FPC-12663	Level Alarm - Deluxe - 12Vdc	175x130x80mm
FPC-12670	Level Alarm - Deluxe - Metal Enclosure	300x200x150mm

# LIQUID LEVEL ALARM

## FLUSH MOUNT

MATElec Australia's Liquid Level Alarm is designed to provide warning indication and alarm when a water storage tank is either empty or full. Housed in a wall plate style panel, the Flush Mount version features an audible alarm and a keypad interface with status indicator lights and alarm mute button.



### HARDWARE FEATURES

#### Enclosure:

- Wall plate style panel with C clip mounting bracket

#### Protection:

- Low voltage control and input circuitry

#### Control & interface:

- Audible (buzzer) alarm
- Level alarm keypad interface:
  - Indicator lights for power on, level alarm
  - Alarm mute/reset/test button
- Level alarm PCB control module:
  - DIP switch for selecting normally open or closed alarm

#### Inputs:

- Single phase (230Vac) power supply
- Digital 12Vdc input for float switch.

### FUNCTIONS

- **Level alarm** - Provides warning indication and alarm when a water storage tank is empty or full
- **Auto-silencing alarm** - If not muted, the buzzer will silence after 5 minutes, then sound briefly every 5 minutes
- **Mute reset** - After 12 hours of being muted, the mute will automatically reset and the buzzer will resume sounding
- **Silent mode** - If the input is constantly switching, as could occur if a pump is struggling to keep a pit below high level, the buzzer can be disabled for 12 hours before resuming normal operation.

### LIQUID LEVEL ALARM - FLUSH MOUNT

Code	Description	Enclosure Size
FPC-12656	Liquid Level Alarm - Flush Mount	175x130x80mm

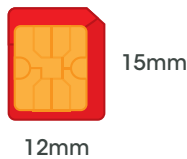
# LIQUID LEVEL ALARM

## WITH SMS

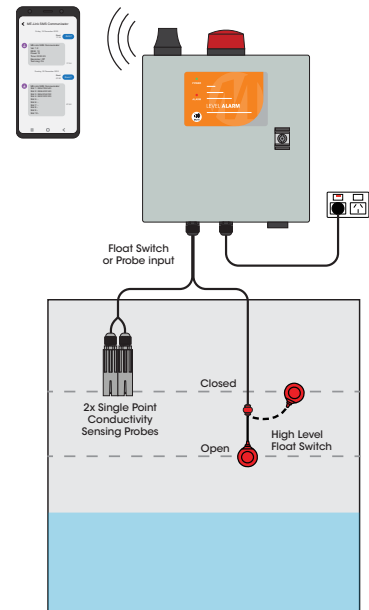
MATElec Australia's Liquid Level Alarm with SMS features our newly designed ME-Link module, which is a cellular CAT-M1 remote monitoring and control device utilising the 700Mhz frequency for 'best in class' signal strength. The ME-Link reports status information and alarms from the Liquid Level Alarm and any additional digital inputs. The ME-Link Module can also be utilised to control external devices with the two onboard relay outputs. Easy to set up SMS commands are used to configure the operation and alarms without the need for any additional software.

**ME-Link**  
IoT/SMS MODULE

Micro SIM card required from network provider with CAT-M1 enabled (currently only Telstra has CAT-M1 enabled).



ME-Link IoT/SMS Module



### HARDWARE FEATURES

#### Enclosure:

- IP54 rated, powder coated mild steel enclosure with removable gland plate

#### Protection:

- Low voltage control and input circuitry
- Din rail mounted terminal connections

#### Control & interface:

- Visual (strobe) and audible (buzzer) alarms
- Level alarm keypad interface:
  - Indicator lights for power on, level alarm
  - Alarm mute/reset/test button
- Level alarm PCB control module
- ME-Link IoT/SMS module (requires micro SIM card from network provider with CAT-M1 enabled)
- Vandal resistant antenna (remote mount high gain antenna also available for low signal strength areas)
- Battery for backup on mains power failure

#### Inputs:

- Single phase (230Vac) power supply
- Digital 12Vdc input for float switch
- 5x Additional 12Vdc inputs on ME-Link module.

#### Outputs:

- 2x Relay outputs on ME-Link module

#### Included with panel:

- 10 Amp 3 pin 1.5m power supply lead.

### FUNCTIONS

- **Level alarm** - Provides warning indication and alarm when a water storage tank is empty or full
- **Auto-silencing alarm** - If not muted, the buzzer will silence after 5 minutes, then sound briefly every 5 minutes (this feature can be disabled if a continuous alarm is required).

#### SMS alarm messaging:

- SMS messaging for level alarm and power/battery supply status, and from up to 5 additional inputs
- Easily programming with SMS commands
- Up to 10 phone numbers can receive messages
- Smart help responses on incorrect commands
- Once, repeat or sequential notification messaging
- Repeat or sequential messaging until user accepted
- Daily reminder messages for active alarms
- Remote control of systems and or devices via the 2 relay outputs
- Periodic test messages to ensure ME-Link is connected and operating
- Temporary disabling of notifications for site servicing
- Logged data for 'last alarm', 'acknowledgment time and number'.

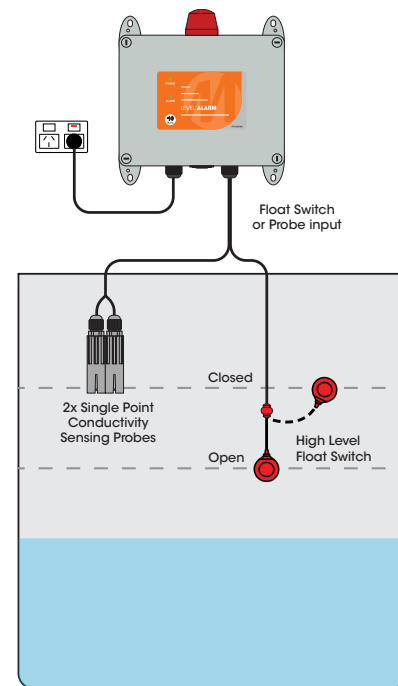
### LIQUID LEVEL ALARM - WITH SMS

Code	Description	Enclosure Size
FPC-12651-SMS	Liquid Level Alarm - With SMS	300x300x150mm

# LIQUID LEVEL AND POWER FAILURE ALARM

## BATTERY BACKUP

MATElec Australia's Liquid Level Alarm is designed to provide warning indication and alarm when a water storage tank is either empty or full. Housed in a robust polycarbonate enclosure, the Alarm features audible and visual alarms and a keypad interface with status indicator lights and alarm mute button. The Battery Backup version features a built-in battery and charger and activates the alarm on mains power failure.



### HARDWARE FEATURES

#### Enclosure:

- IP54 rated, polycarbonate enclosure with mounting brackets

#### Protection:

- Low voltage control and input circuitry
- Din rail mounted terminal connections

#### Control & interface:

- Visual (strobe) and audible (buzzer) alarms
- Level alarm keypad interface:
  - Indicator lights for power on, level alarm
  - Alarm mute/reset/test button

- Level alarm PCB control module
- 12V 1.3Ah battery and charger for backup on mains failure

#### Inputs:

- Single phase (230Vac) power supply
- Digital 12Vdc input for float switch or conductivity probes

#### Outputs:

- BMS volt free output for common fault (NO & NC)

#### Included with panel:

- 10 Amp 3 pin 1.5m power supply lead.

### FUNCTIONS

- **Level and power failure alarm** - Provides warning indication and alarm when a water storage tank is empty or full, and when mains power is lost
- **Auto-silencing alarm** - If not muted, the buzzer will silence after 5 minutes, then sound briefly every 5 minutes (this feature can be disabled if a continuous alarm is required)
- **Battery backup** - Battery is charged while mains power is present, and allows the unit to operate for approximately 10 hours without mains power.

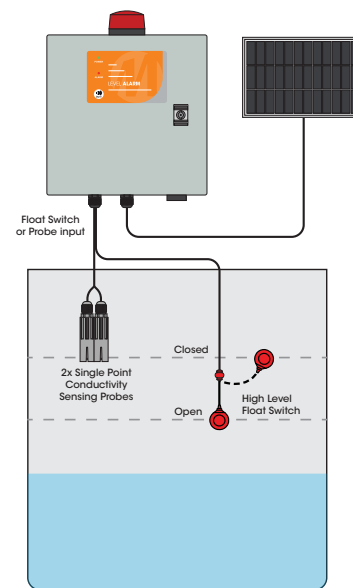
### LIQUID LEVEL & POWER FAILURE ALARM - BATTERY BACKUP

Code	Description	Enclosure Size
FPC-12657	Liquid Level & Power Failure Alarm - Battery Backup	240x190x95mm

# LIQUID LEVEL ALARM

## SOLAR POWERED

MATElec Australia's Liquid Level Alarm is designed to provide warning indication and alarm when a water storage tank is either empty or full. Housed in a robust powder coated metal enclosure, the Alarm features audible and visual alarms and a keypad interface with status indicator lights and alarm mute button. The Solar Powered version includes a solar panel for power supply in applications where mains power is unavailable.



### HARDWARE FEATURES

#### Enclosure:

- IP54 rated, powder coated mild steel enclosure with removable gland plate.

#### Protection:

- Low voltage control and input circuitry
- Din rail mounted terminal connections.

#### Control & interface:

- Visual (strobe) and audible (buzzer) alarms
- Level alarm keypad interface:
  - Indicator lights for power on, level alarm
  - Alarm mute/reset/test button

- Level alarm PCB control module
- 12V 1.3Ah battery and solar charging regulator

#### Inputs:

- Single phase (230Vac) power supply
- Digital 12Vdc input for float switch or conductivity probes.

#### Outputs:

- BMS volt free output for common fault (NO & NC).

#### Included with panel:

- 10 Amp 3 pin 1.5m power supply lead
- 5W solar panel and mounting brackets.

### FUNCTIONS

- **Level alarm** - Provides warning indication and alarm when a water storage tank is empty or full
- **Auto-silencing alarm** - If not muted, the buzzer will silence after 5 minutes, then sound briefly every 5 minutes (this feature can be disabled if a continuous alarm is required)
- **Battery backup** - Allows the unit to operate for approximately 4 days without sunlight, or 10 hours with alarm activated
- **Low voltage cut-out** - The unit will switch off if battery voltage drops too low, to prevent the battery from going completely flat.

### LIQUID LEVEL ALARM - SOLAR POWERED

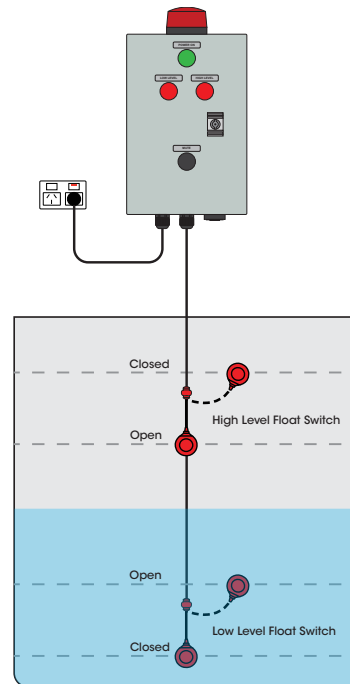
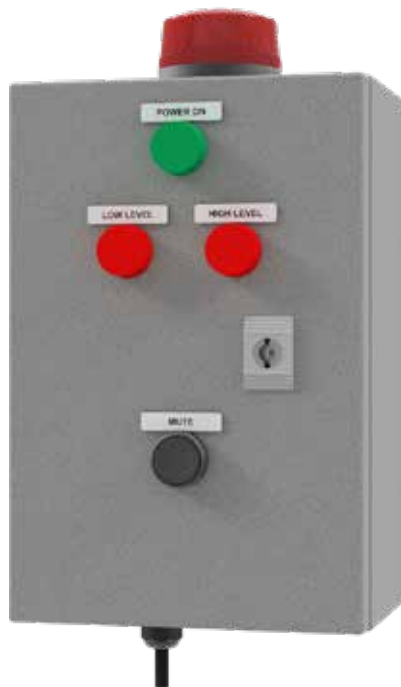
Code	Description	Enclosure Size
FPC-12658	Liquid Level Alarm - Solar Powered	300x300x200mm



# LIQUID LEVEL ALARM

## HIGH & LOW LEVEL

MATElec Australia's High & Low Level Alarm is designed to provide warning indication and alarm when a water storage tank is both empty and full. Housed in a robust powder coated metal enclosure, the Alarm features audible and visual alarms, status indicator lights and an alarm mute button.



### HARDWARE FEATURES

#### Enclosure:

- IP54 rated, powder coated mild steel enclosure with removable gland plate.

#### Protection:

- Low voltage control and input circuitry
- Din rail mounted terminal connections.

#### Control & interface:

- Visual (strobe) and audible (buzzer) alarms
- Indicator lights for power on, high and low level alarm
- Alarm mute/reset/test button
- Level alarm PCB control module.

#### Inputs:

- Single phase (230Vac) power supply
- 2x Digital 12Vdc inputs for high and low level float switches.

#### Outputs:

- BMS volt free outputs for high and low level.

#### Included with panel:

- 10 Amp 3 pin 1.5m power supply lead.

### FUNCTIONS

- **High & low level alarm** - Provides warning indication and alarm when a water storage tank is empty and full
- **Auto-silencing alarm** - If not muted, the buzzer will silence after 5 minutes, then sound briefly every 5 minutes (this feature can be disabled if a continuous alarm is required).

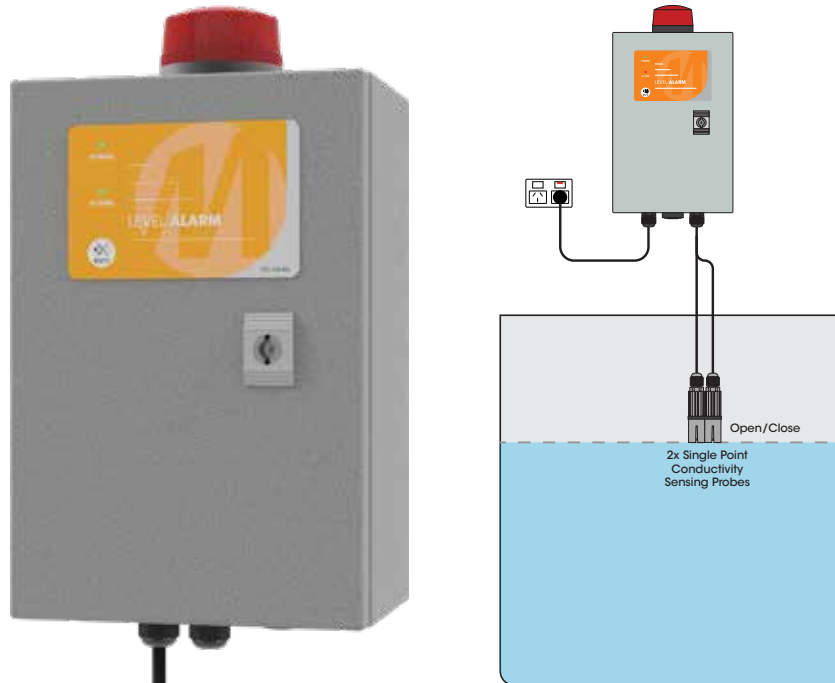
### LIQUID LEVEL ALARM - HIGH & LOW LEVEL

Code	Description	Enclosure Size
FPC-12664	Liquid Level Alarm - High & Low Level	300x200x150mm

# LIQUID LEVEL ALARM

## CONDUCTIVITY RELAY

MATElec Australia's Liquid Level Alarm is designed to provide warning indication and alarm when a water storage tank is either empty or full. Housed in a robust powder coated metal enclosure, the alarm features both audible and visual alarms and a keypad interface providing status indication and easy alarm muting. The Probe Inputs version features a conductivity relay and inputs for conductivity sensing probes, ideal for lift well moisture sensing and other applications.



### HARDWARE FEATURES

#### Enclosure:

- IP54 rated, powder coated mild steel enclosure with removable gland plate

#### Protection:

- Low voltage control and input circuitry
- Din rail mounted terminal connections

#### Control & interface:

- Visual (strobe) and audible (buzzer) alarms
- Level alarm keypad interface:
  - Indicator lights for power on, level alarm
  - Alarm mute/reset/test button

- Level alarm PCB control module
- Conductivity relay with sensitivity adjustment

#### Inputs:

- Single phase (230Vac) power supply
- Digital 12Vdc input for 2x conductivity probes

#### Outputs:

- BMS volt free output for common fault (NO & NC)

#### Included with panel:

- 10 Amp 3 pin 1.5m power supply lead
- 2x Single point conductivity sensing probes with 10m cable.

### FUNCTIONS

- **Level alarm** - Provides warning indication and alarm when a water storage tank is empty or full
- **Auto-silencing alarm** - If not muted, the buzzer will silence after 5 minutes, then sound briefly every 5 minutes (this feature can be disabled if a continuous alarm is required).

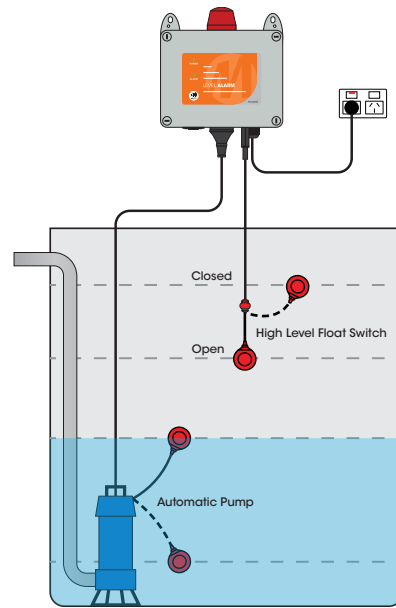
### LIQUID LEVEL ALARM - CONDUCTIVITY PROBE

Code	Description	Enclosure Size
FPC-12665	Liquid Level Alarm - With Conductivity Relay	300x200x150mm

# LIQUID LEVEL ALARMS

## AUTO PUMP CONNECTION

MATElec Australia's Liquid Level Alarm is designed to provide warning indication and alarm when a water storage tank is full. Housed in a robust polycarbonate or powder coated metal enclosure, the alarm features audible and visual alarms and a keypad interface with status indicator lights and alarm mute button. The Auto Pump Connection version includes a 9006 Float Switch with quick plug connection and a GPO for power supply to an automatic pump.



### HARDWARE FEATURES

#### Enclosure:

- IP54 rated, polycarbonate enclosure with mounting brackets, or:
- IP54 rated, powder coated mild steel enclosure with removable gland plate, for heavy duty applications (metal enclosure version)

#### Protection:

- Low voltage control and input circuitry
- Quick plug connections, no hard wiring needed

#### Control & interface:

- Visual (strobe) and audible (buzzer) alarms
- Level alarm keypad interface:

- Indicator lights for power on, level alarm
- Alarm mute/reset/test button

- Level alarm PCB control module

#### Inputs:

- Quick plug digital 12Vdc input for float switch

#### Outputs:

- 10 Amp GPO for power supply to pump
- BMS volt free output for common fault (NO & NC)

#### Included with panel:

- 10 Amp 3 pin 1.5m power supply lead
- 9006 float switch with 10m cable & quick plug connector.

### FUNCTION FEATURES

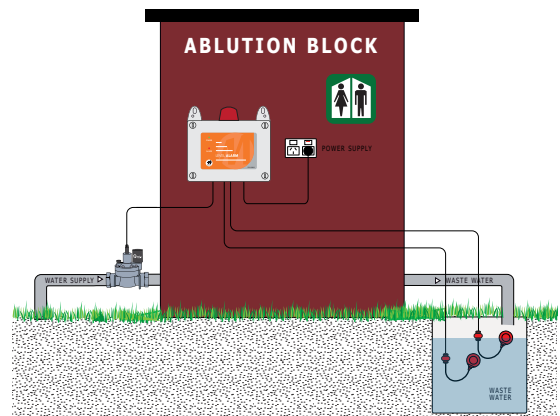
- **High level alarm** - Provides warning indication and alarm when a water storage tank is full
- **Auto-silencing alarm** - If not muted, the buzzer will automatically silence after 5 minutes (this feature can be disabled if a continuous alarm is required)
- **Auto pump output** - The GPO provides power to an automatic pump, which starts and stops according to its own float switch.

### HIGH LEVEL ALARMS - AUTO PUMP CONNECTION

Code	Description	Enclosure Size
FPC-12654	High Level Alarm - Auto Pump Connection	200x160x95mm
FPC-12672	High Level Alarm - Auto Pump Connection - Metal Enclosure	300x200x150mm

# HIGH LEVEL ALARMS

## VALVE SHUT-OFF



### HARDWARE FEATURES

#### Enclosure:

- IP54 rated, polycarbonate enclosure with mounting brackets, or:
- IP54 rated, powder coated mild steel enclosure with removable gland plate, for heavy duty applications (metal enclosure version)

#### Protection:

- Low voltage control and input circuitry
- Quick plug connections - No hard wiring needed (poly version)
- Din rail mounted terminal connections (metal version)

#### Control & interface:

- Visual (strobe) and audible (buzzer) alarms
- Level alarm keypad interface:

- Indicator lights for power on, level alarm
- Alarm mute/reset/test button

- Shut-off controller PCB control module
- Indicator light for valve open (metal version)

#### Inputs:

- Single phase (230Vac) power supply
- 2x digital 12Vdc inputs for float switches

#### Outputs:

- BMS volt free output for common fault
- 12Vdc output for solenoid valve

#### Included with panel:

- 10 Amp 3 pin 1.5m power supply lead
- 2x 9006 float switches with 10m cable (with quick plugs for poly version)
- 25mm female/female 12Vdc pulse latching solenoid valve.

### FUNCTION FEATURES

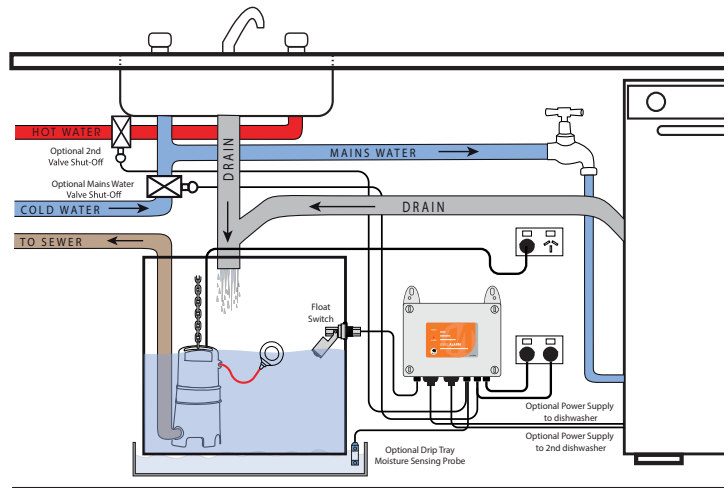
- Suitable for applications where the water being discharged from an abluent is required to be pumped away
- When the first float switch closes, the visual alarm will activate
- If the water level continues to rise and the next float switch closes, the audible alarm will activate and the controller will pulse close the valve, ensuring no further mains water is used, preventing the level in the outfall tank from rising further
- In the event of power failure, the valve is immediately closed.

### HIGH LEVEL ALARMS - VALVE SHUT-OFF

Code	Description	Enclosure Size
FPC-12675	High Level Alarm - Valve Shut-Off	200x160x95mm
FPC-12676	High Level Alarm - Valve Shut-Off - Metal Enclosure	300x200x150mm

# UNDERSINK ALARM & SHUT-OFF CONTROLLERS

## VALVE/DISHWASHER SHUT-OFF



### HARDWARE FEATURES

#### Enclosure:

- IP54 rated, polycarbonate enclosure with mounting brackets

#### Protection:

- Low voltage control and input circuitry
- Pre-wired connections - No hard wiring needed

#### Control & interface:

- Audible (buzzer) alarm
- Level alarm keypad interface, with:
  - Indicator lights for power on and level alarm
  - Audible alarm mute/reset/test button
- Shut-off controller PCB control module

#### Inputs:

- Single phase (230Vac) power supply
- Digital 12Vdc input for float switch

- Digital 12Vdc input for moisture sensing probe (for FPC-12662 only)

#### Outputs:

- 12Vdc output for solenoid valve (for all but FPC-12660, 2x outputs for FPC-12667)
- 10 Amp GPOs for supply to dishwashers (for all but FPC-12659, 2x outputs for FPC-12666)
- BMS volt free output for common fault

#### Included with panel:

- 10 Amp 3 pin 1.5m power supply lead (2x leads for FPC-12666)
- Magnetic float switch with 10m cable
- 20mm male/male 12Vdc pulse latching solenoid valve (for all but FPC-12660, 2x floats for FPC-12667)
- Moisture sensing probe (FPC-12662 only).

### FUNCTION FEATURES

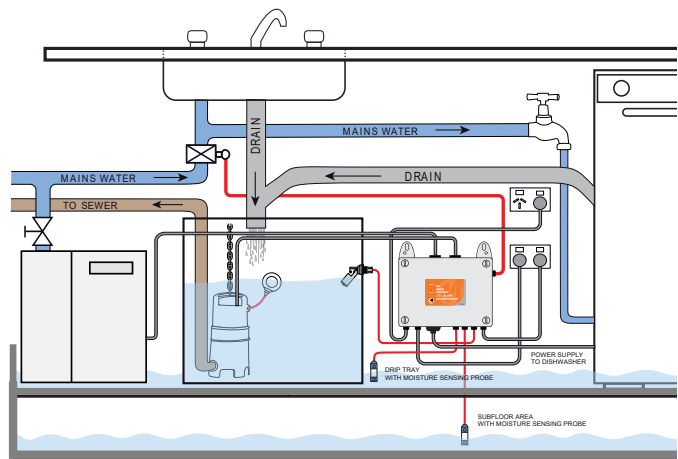
- In the event of 'high level' or moisture detected in the drip tray (if applicable), the controller activates the alarm, pulse closes the valve (if applicable) and isolates power to the dishwasher (if applicable), ensuring no further mains water enters the sink and chamber
- If power to the controller is lost or switched off, the valve is immediately closed.

### UNDERSINK ALARMS - VALVE & DISHWASHER SHUT-OFF

Code	Description	Enclosure Size
FPC-12659	Undersink Alarm - Valve Shut-Off	200x160x95mm
FPC-12660	Undersink Alarm - Dishwasher Shut-Off	200x160x95mm
FPC-12661	Undersink Alarm - Valve & Dishwasher Shut-Off	200x160x95mm
FPC-12662	Undersink Alarm - Valve & Dishwasher Shut-Off with Drip Tray Moisture Sensor	200x160x95mm
FPC-12666	Undersink Alarm - Valve & Dual Dishwasher Shut-Off	240x190x95mm
FPC-12667	Undersink Alarm - Dual Valve & Dishwasher Shut-Off	200x160x95mm

# UNDERSINK ALARM & SHUT-OFF CONTROLLERS

VALVE, PUMP, BWU & DISHWASHER SHUT-OFF WITH DRIP TRAY & SUB-FLOOR MOISTURE SENSORS



## HARDWARE FEATURES

### Enclosure:

- IP54 rated, polycarbonate enclosure with mounting brackets

### Protection:

- Low voltage control and input circuitry
- Pre-wired connections - No hard wiring needed

### Control & interface:

- Audible (buzzer) alarm
- Level alarm keypad interface, with:
  - Indicator lights for power on and level alarm
  - Audible alarm mute/reset/test button
- Shut-off controller PCB control module

### Inputs:

- Single phase (230Vac) power supply

- Digital 12Vdc input for float switch
- Digital 12Vdc input for moisture sensing probe (2x inputs for FPC-12662-NDY2)

### Outputs:

- 12Vdc output for solenoid valve
- 3x 10 or 15 Amp GPOs for supply to pump, boiling water unit and dishwasher
- BMS volt free output for common fault

### Included with panel:

- 3x 10 or 15 Amp 3 pin 1.5m power supply leads
- Magnetic float switch with 10m cable
- 20mm male/male 12Vdc pulse latching solenoid valve
- Moisture sensing probe (2x for FPC-12662-NDY2).

## FUNCTION FEATURES

- In the event of 'high level' or fluid detected in the drip tray or sub floor areas, the controller activates the alarm, pulse closes the valve, ensuring no further mains water enters the sink and chamber, and isolates power to the dishwasher, pump and boiling water unit, ensuring no further 'inflow' to the chamber occurs
- If power to the controller is lost or switched off, the valve is immediately closed.

## UNDERSINK ALARMS - VALVE, PUMP, BWU & DISHWASHER SHUT-OFF WITH MOISTURE SENSORS

Code	Description	Amp Rating	Enclosure Size
FPC-12662-NDY	Undersink Alarm - Valve, Pump, BWU & Dishwasher	10 Amp	330x260x135mm
FPC-12662-NDY15	Shut-Off With Drip Tray Moisture Sensor	15 Amp	330x260x135mm
FPC-12662-NDY2	Undersink Alarm - Valve, Pump, BWU & Dishwasher	10 Amp	330x260x135mm
FPC-12662-NDY2-15	Shut-Off With Drip Tray & Sub-Floor Moisture Sensors	15 Amp	330x260x135mm

# TANK FILL CONTROLLERS

## PUMP SHUT-OFF

### HARDWARE FEATURES

#### Enclosure:

- IP54 rated, polycarbonate enclosure with mounting brackets

#### Protection:

- Low voltage control and input circuitry
- Din rail mounted terminal or quick plug connections

#### Control & interface:

- Indicator light for tank full

#### Inputs:

- Single phase (230Vac) power supply
- Digital 24Vac input for float switch

#### Outputs:

- GPO for power supply to pump (6 Amp max)

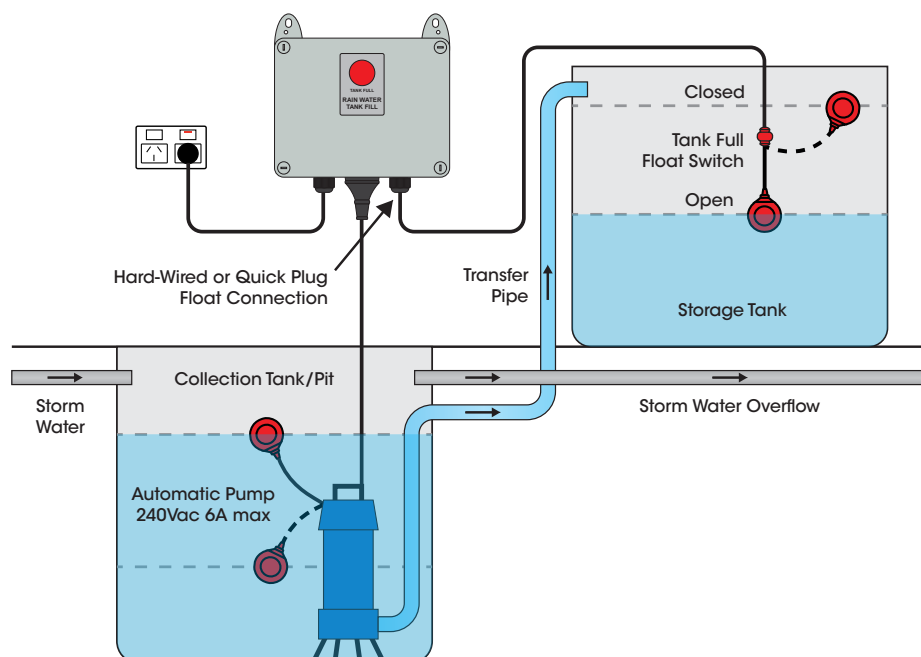
#### Included with panel:

- 10 Amp 3 pin 1.5m power supply lead
- 9006 float switch with 10m cable and quick plug connector (quick plug version).



### FUNCTION FEATURES

- Provides power supply to an automatic pump, used to transfer stormwater from a collection pit to a storage tank
- When the storage tank is full and the high level float switch closes, the controller inhibits the pump and the 'tank full' indicator light is illuminated
- Power to the pump is restored when the level in the storage tank falls and the float switch opens.



### TANK FILL CONTROLLERS - PUMP SHUT-OFF

Code	Description	Amp Rating	Enclosure Size
FPC-11005	Tank Fill Pump Controller - Standard	6 Amp Max	200x160x95mm
FPC-11006	Tank Fill Pump Controller - Quick Plug	6 Amp Max	200x160x95mm

# LOW LEVEL PUMP SHUT-OFF CONTROLLER

## HARDWARE FEATURES

### Enclosure:

- IP54 rated, polycarbonate enclosure with mounting brackets

### Protection:

- Low voltage control and input circuitry
- Quick plug connections, no hard wiring needed

### Control & interface:

- Indicator light for power on and tank empty

### Inputs:

- Single phase (230Vac) power supply
- Quick plug digital 24Vac input for float switch

### Outputs:

- GPO for power supply to pump (6 amp max)

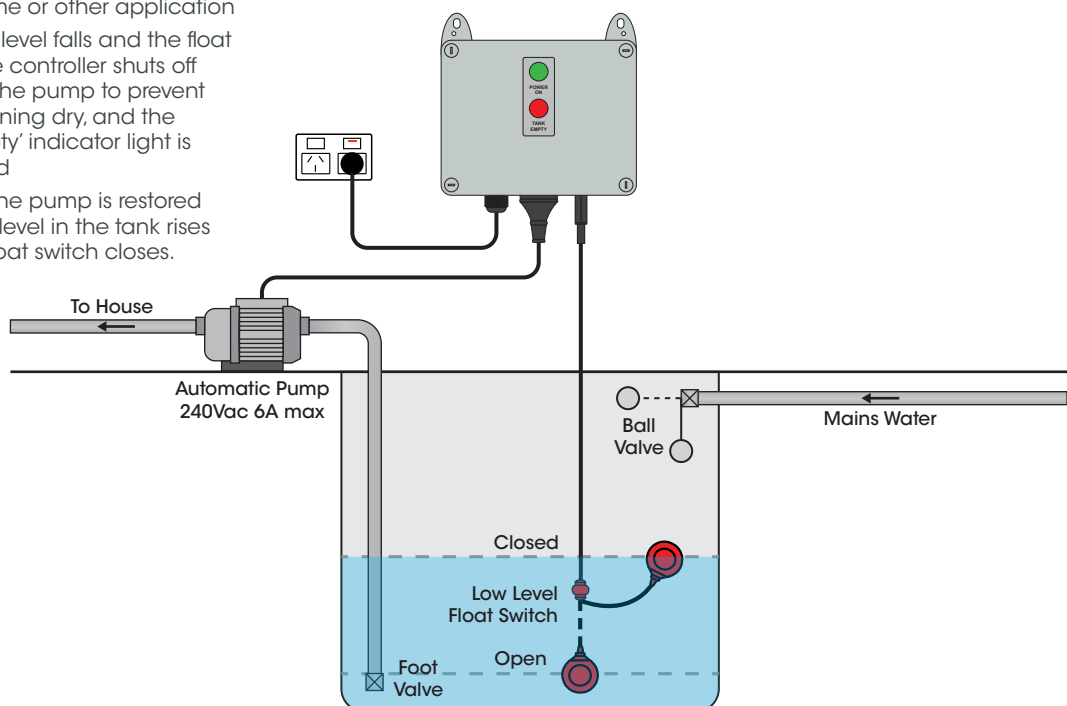
### Included with panel:

- 10 Amp 3 pin 1.5m power supply lead.
- 9006 float switch with 10m cable and quick plug connector.



## FUNCTION FEATURES

- Provides power supply to a pump, used to pump water from a tank into a home or other application
- When the level falls and the float opens, the controller shuts off power to the pump to prevent it from running dry, and the 'tank empty' indicator light is illuminated
- Power to the pump is restored when the level in the tank rises and the float switch closes.



## LOW LEVEL PUMP SHUT-OFF CONTROLLERS

Code	Description	Amp Rating	Enclosure Size
FPC-11010	Low Level Pump Shut-Off Controller - Standard	6 Amps	200x160x95mm



# TANK FILL CONTROLLERS

## VALVE SHUT-OFF

### HARDWARE FEATURES

#### Enclosure:

- IP54 rated, polycarbonate enclosure with mounting brackets (standard version), or:
- IP54 rated, powder coated mild steel enclosure with removable gland plate (dual float version)

#### Protection:

- Low voltage control and input circuitry
- Din rail mounted terminal connections

#### Control & interface:

- Indicator lights for power on and valve open

#### Inputs:

- Single phase (230Vac) power supply
- Digital 24Vac inputs for float switch (2x for dual float version)

#### Outputs:

- 24Vac output for solenoid valve

#### Included with panel:

- 10 Amp 3 pin 1.5m power supply lead
- 25mm female/female 24Vac N/C solenoid valve
- 9006 float switches with 10m cable (2x for dual float version).



### FUNCTION FEATURES

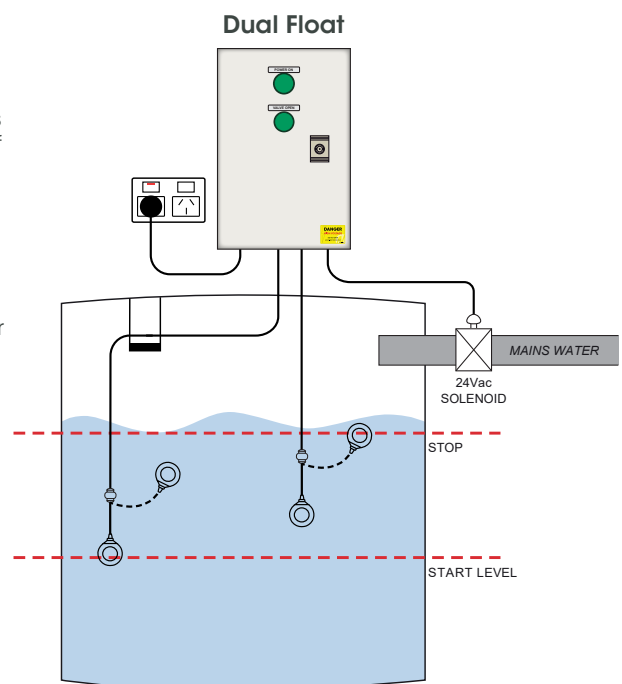
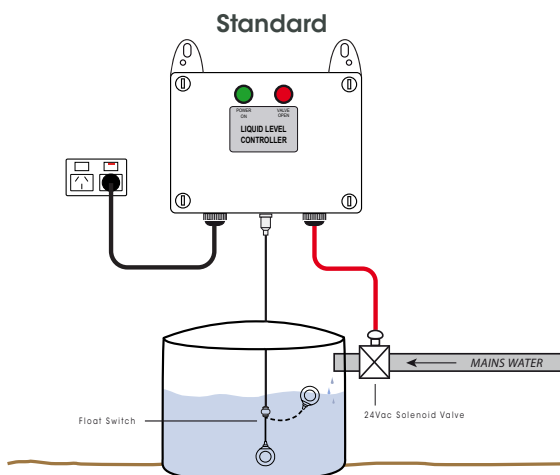
- Ideal for maintaining water at predetermined levels in a tank, swimming pool or reservoir
- When tank full level is reached, the controller pulse closes the valve, ensuring no further water enters the tank, and if the water level drops to low level, the valve is opened

#### Specific to standard version:

- Switching differential: Min 25mm, max 1m

#### Specific to dual float version:

- The use of 2 floats allows for greater differential between 'valve open' and 'valve close' levels, making this controller ideal for controlling water level in larger tanks.



### TANK FILL CONTROLLERS - VALVE SHUT-OFF

Code	Description	Enclosure Size
FPC-12700	Tank Fill Valve Controller - Standard	200x160x95mm
FPC-12702	Tank Fill Valve Controller - Dual Float	300x200x150mm

# TANK FILL DIVERSION VALVE CONTROLLERS

## HARDWARE FEATURES

### Enclosure:

- IP54 rated, powder coated mild steel enclosure with removable gland plate

### Protection:

- Pad-lockable mains power isolator switch
- Low voltage control and input circuitry
- Din rail mounted terminal connections

### Control & interface:

- Indicator light for power on, tank full, valve open and valve closed

### Inputs:

- Single phase (230Vac) power supply
- Digital 24Vac input for float switch
- Digital 24Vdc input for rain sensor (first flush version)

### Outputs:

- Output for air actuator valve
- Weatherproof GPO for power supply to air compressor, which drives an air actuator valve

### Included with panel:

- 9006 float switch with 10m cable.



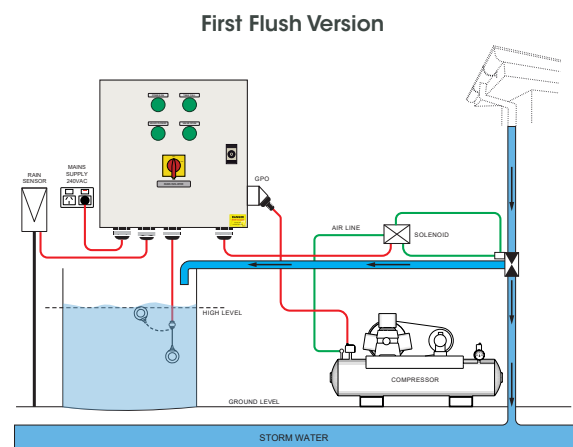
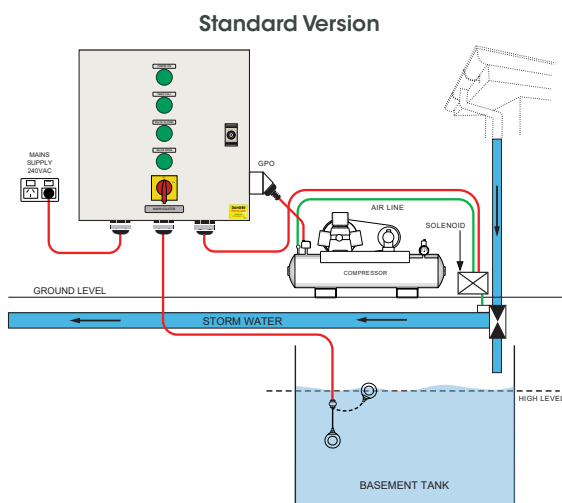
## FUNCTION FEATURES

### Standard version:

- Designed to work with an air compressor to drive an air actuator valve, which is closed when the level in the tank reaches 'high level', diverting further rainwater to stormwater

### First flush version:

- Allows a set amount of rain water to be flushed to storm water to clean all collection areas, then diverts water to a collection tank until 'high level' is reached.

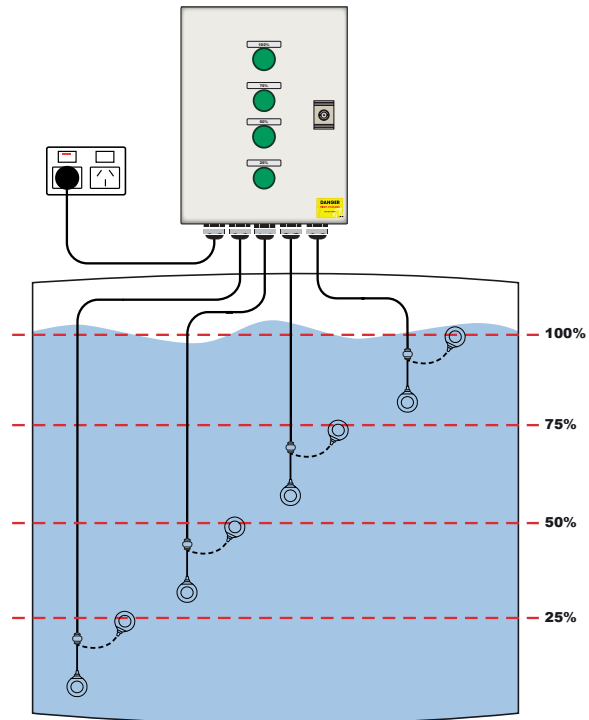
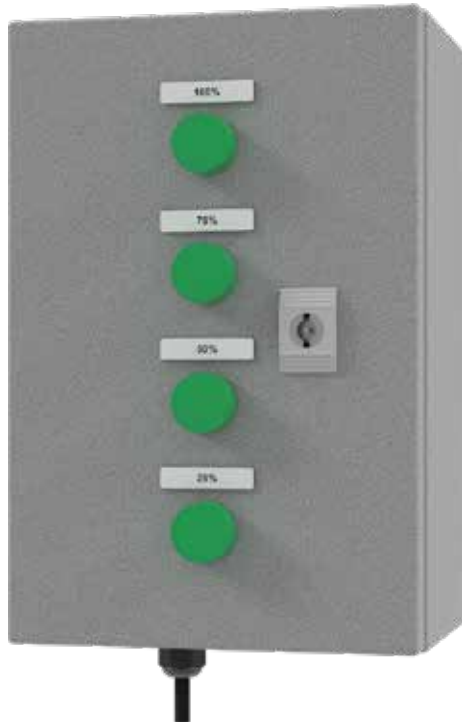


## TANK FILL DIVERSION VALVE CONTROLLERS

Code	Description	Enclosure Size
FPC-11009	Tank Fill Diversion Valve Controller - Standard	300x300x150mm
FPC-11004	Tank Fill Diversion Valve Controller - First Flush	300x300x150mm

# TANK LEVEL INDICATORS

## FOUR LEVELS



### HARDWARE FEATURES

#### Enclosure:

- IP54 rated, powder coated mild steel enclosure with removable gland plate

#### Protection:

- Low voltage control and input circuitry
- Din rail mounted terminal connections

#### Control & interface:

- Indicator lights for 25%, 50%, 75% and 100% full levels

#### Inputs:

- Single phase (230Vac) power supply
- 4x digital 24Vac inputs for float switches

#### Included with panel:

- 10 Amp 3 pin 1.5m power supply lead
- 4x 9004 float switches with 10m cable.

### FUNCTION FEATURES

- Provides an extremely accurate and informative indication of water level within a tank.

### TANK LEVEL INDICATORS - FOUR LEVELS

Code	Description	Enclosure Size
FPC-12703	Tank Level Indicator - Four Levels	300x200x150mm

# TANK LEVEL INDICATORS

## STANDARD & DUAL



### HARDWARE FEATURES

#### Enclosures:

- IP44 rated, powder coated mild steel enclosure with removable gland plate

#### Protection:

- Low voltage control and input circuitry

#### Control & interface:

- Process meter LED display (2x displays for dual tank version)
- Display be configured to read depth, percentage full, or capacity.

#### Inputs:

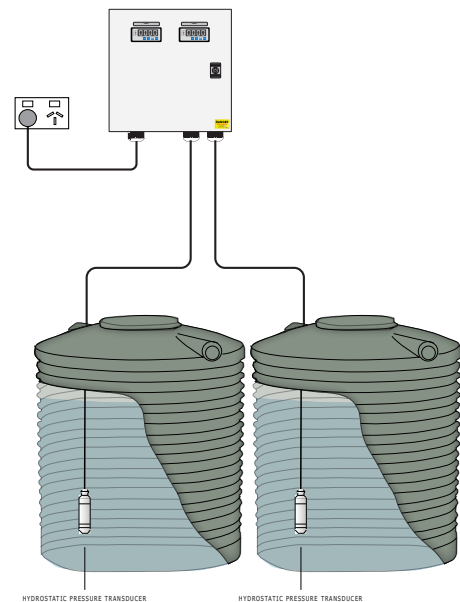
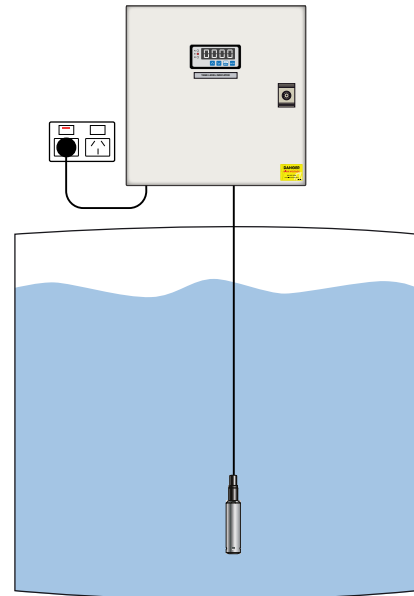
- Single phase (230Vac) power supply
- Analogue 4-20mA input for hydrostatic transducer (2x inputs for dual tank version)

#### Outputs:

- BMS volt free outputs for tank empty and tank full

#### Included with panel:

- 10 Amp 3 pin 1.5m power supply lead
- Potable water hydrostatic pressure transducer (0-4m rating, others available on request) with 24m cable (2x for dual tank version).



### FUNCTION FEATURES

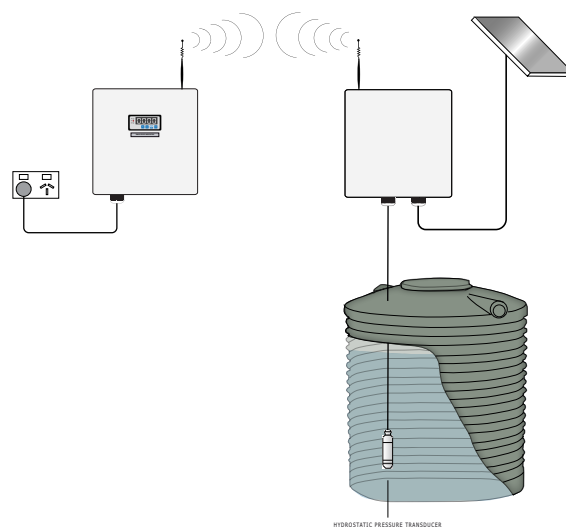
- Provides an extremely accurate and informative indication of water level within a tank or two tanks (dual tank version).

### TANK LEVEL INDICATORS - STANDARD & DUAL TANK

Code	Description	Enclosure Size
FPC-12705	Tank Level Indicator - Standard	300x300x150mm
FPC-12708	Tank Level Indicator - Dual Tank	300x300x150mm

# TANK LEVEL INDICATORS

## WIRELESS



### HARDWARE FEATURES

#### Enclosure:

- 2x IP44 rated, powder coated mild steel enclosures with removable gland plates

#### Protection:

- Low voltage control and input circuitry

#### Control & interface:

- Process meter LED display (on receiver panel)
- Display be configured to read depth, percentage full, or capacity

#### Inputs:

- Single phase (230Vac) power supply
- Input for solar power source (in transmitter panel, solar version only)
- Analogue 4-20mA input for hydrostatic transducer

#### Outputs:

- BMS volt free outputs for tank empty and tank full (in receiver panel).

#### Included with panel:

- Transmitter and receiver panels with antennas.
- Built in rechargeable battery (solar version)
- 10 Amp 3 pin 1.5m power supply leads
- Potable water hydrostatic pressure transducer (0-4m rating, others available on request) with 24m cable.

### FUNCTION FEATURES

- Provides an extremely accurate and informative indication of water level within a tank
- Ideal for situations where it is not possible or cost effective to run a cable
- 500m line of sight signal range between panels.

#### Specific to solar version:

- Solar powered transmitter panel allows tank level to be transmitted from a water storage where mains power is unavailable.

### TANK LEVEL INDICATORS - WIRELESS

Code	Description	Enclosure Size
FPC-12706	Tank Level Indicator - Wireless	2x 300x300x150mm
FPC-12707	Tank Level Indicator - Solar Wireless	2x 300x300x150mm

# GREY WATER PUMP CONTROLLERS

## HARDWARE FEATURES

### Enclosure:

- IP54 rated, polycarbonate enclosure with mounting brackets

### Protection:

- Low voltage control and input circuitry
- Quick plug and GPO connections - No hard wiring needed (quick plug version only)

### Control & interface:

- Indicator lights for power on and pump run

### Inputs:

- Single phase (230Vac) power supply
- 2x 15Vdc inputs for start and stop level float switches

### Outputs:

- Pump supply output (8 Amps max) (GPO for quick plug version)

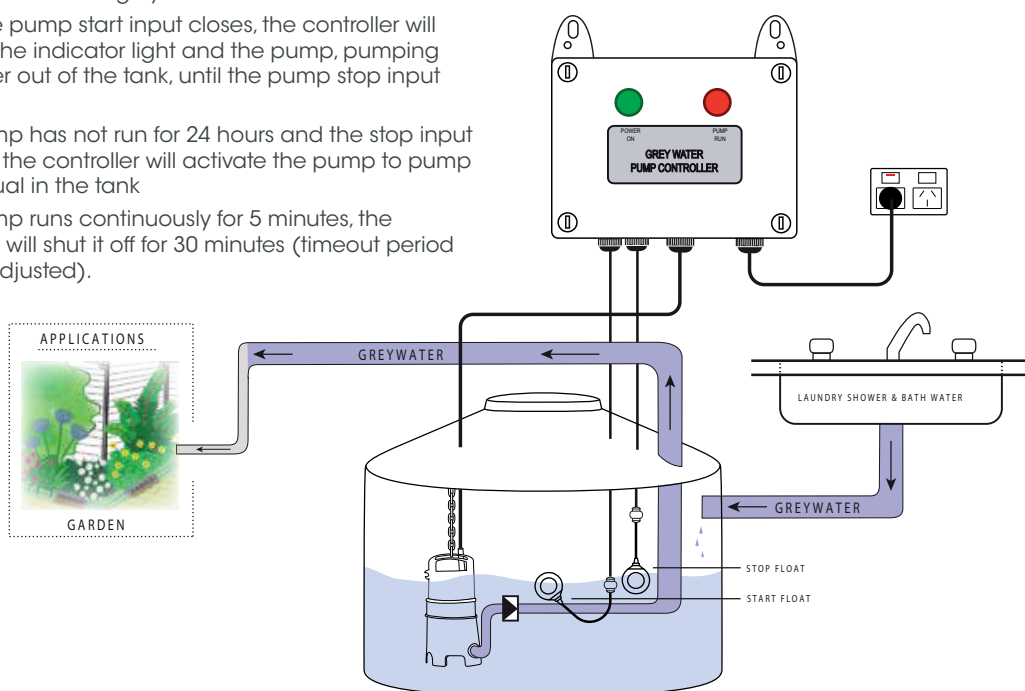
### Included with panel:

- 10 Amp 3 pin 1.5m power supply lead
- 2x 9006 float switches with 2.5m cable (with quick plug connectors for quick plug version).



## FUNCTION FEATURES

- Monitors the level of grey water in a tank
- When the pump start input closes, the controller will activate the indicator light and the pump, pumping grey water out of the tank, until the pump stop input opens
- If the pump has not run for 24 hours and the stop input is closed, the controller will activate the pump to pump out residual in the tank
- If the pump runs continuously for 5 minutes, the controller will shut it off for 30 minutes (timeout period can be adjusted).



## GREY WATER PUMP CONTROLLERS

Code	Description	Amp Rating	Enclosure Size
FPC-12501	Grey Water Pump Controllers - Deluxe	8 Amps	200x160x95mm
FPC-12504	Grey Water Pump Controllers - Quick Plug	8 Amps	200x160x95mm

# PUMP CONTROLLERS

## ECONO DOL STARTERS

The Econo DOL Starter Pump Controllers provide a highly cost effective way of controlling a pump in applications where the features found in our more advanced pump controllers are not required. Housed in a robust powder coated metal enclosure, these controllers provide overload protection for a single or three phase pump and auto/off/manual control via a selector switch.

### HARDWARE FEATURES

#### Enclosure:

- IP44 rated, powder coated mild steel enclosure with removable gland plate

#### Protection:

- Pad-lockable mains power isolator switch
- Circuit breaker protected low voltage control and input circuitry
- Contactor and thermal overload protection of pump
- Din rail mounted terminal connections for easy field wiring

#### Control & interface:

- Selector switch for auto/off/manual control of pump

#### Inputs:

- Single phase (230Vac) or three phase (400Vac) power supply
- 2x 24Vac digital inputs for cut off and working level float, pressure or other switches

#### Outputs:

- 1x pump supply output.

### FUNCTION FEATURES

- **Automatic pump control** - Pump is controlled by cut off and working level digital inputs
- **Manual pump control** - Runs pump continuously irrespective of inputs.

### FAULT PROTECTION

- **Pump overload protection** - Pump shuts down on overload.



### MODIFICATION OPTIONS

- IP56 rated enclosure with inner door
- 316 stainless steel enclosure
- Visual and audible alarms
- Input for remote start/stop.

### OVERLOAD SELECTION

Code Suffix	Overload Rating
-AA	1.6 - 2.5 Amp
-A	2.5 - 4 Amp
-B	4 - 6 Amp
-BB	5.5 - 8 Amp
-C	7 - 10 Amp
-D	9 - 13 Amp
-E	12 - 18 Amp

Additional overload ratings available on request

### PUMP CONTROLLERS - ECONO DOL STARTERS

Code	No of Pumps	Phase / Voltage	Enclosure Size
FPC-15900	Single Pump	1 Phase / 230Vac	300x300x150mm
FPC-15905	Single Pump	3 Phase / 400 Vac	300x300x150mm

# PUMP CONTROLLERS

## COMPAKT

MATElec Australia's Kompakt Range of pump controllers incorporate many of the features of the Standard range into a more compact enclosure that can fit almost anywhere. The Kompakt range features a keypad interface and control module with dipswitches for configuring the controller to suit various level and pressure control applications, as well as built in electronic overload to suit a wide range of single phase pump sizes.



### HARDWARE FEATURES

#### Enclosure:

- IP54 rated, powder coated mild steel enclosure with removable gland plate

#### Protection:

- Pad-lockable mains power isolator switch
- Low voltage control and input circuitry
- Wide range electronic overload protection of pumps, built into PCB
- Electronic short and overload protection of strobe & buzzer

#### Control & interface:

- Single or dual pump keypad interface:
  - Indicator lights for power on, high & low level alarm, pump run, pump fault/overload and prime loss
  - Push buttons for alarm mute/reset, pump auto/off/manual control
- PCB control module with dipswitches for adjusting configuration
- Visual (strobe) and mutable audible (buzzer) alarms

#### Inputs:

- Single phase (230Vac) power supply

- 4x digital 12Vdc inputs for float, pressure or flow switches
- Digital 12Vdc input for optional additional external mute button
- Standard terminal setup: Low level, pump stop, pump start and high level float switches

#### Outputs:

- 1 or 2x pump supply outputs
- BMS volt free output for common fault.

### TYPICAL APPLICATIONS

#### Level control:

- Submersible sewage
- Submersible stormwater
- Water transfer pumping

#### Pressure control:

- Pressure boosting.

### MODIFICATION OPTIONS

- Max pump run time protection
- External mute button.





## FUNCTION FEATURES

- **High level alarm delay** - Avoids nuisance alarms caused by water level oscillation
- **Smart chirp mode alarms** - Alarms automatically silence after 5 minutes if not muted, then chirp every 5 minutes
- **Manual control** - Manual pump mode with optional 5 minute timeout to revert back to auto mode
- **Duty sharing and alternation** - Duty pump alternates on pump start and after 30 minutes of continuous running in alternation mode, or after 6 hours of accumulated running in circulation mode (dual pump versions)
- **Pump staging and destaging** - Second pump is staged into operation on high level float or lag pump pressure switch closing and destaged when no longer required (dual pump versions)
- **Staggered pump start** - Prevents excessive current draw and reduces water surge (dual pump versions)
- **Level control mode** - Pump out operation controlled by pump stop, pump start and high level float switches
- **Maintain minimum level** - Ensures minimum tank level is maintained if pump does not run for 4 hours, and pump stop input is closed
- **Pressure control mode** - Pressure boost operation controlled by lead pump, lag pump (dual pump versions) and low pressure switches.

## FAULT PROTECTION

- **Pump overload protection** - Shuts down pumps on overload, with automatic duty alternation (dual pump versions)
- **Pump anti-seize protection** - Runs pumps periodically during low use to prevent seizing
- **High level alarm** - Can be configured with 15 minute delay and auto reset for stormwater applications, or 5 minute delay and manual alarm reset only for sewage applications
- **Low level alarm** - Locks out pumps until manually reset, to prevent dry running
- **Low flow/prime loss protection** - Activates if a pump is running but there is no flow for 2 minutes (if using flow switch in input 1 instead of low level float switch)
- **Low pressure alarm** - Shuts down pumps if low pressure input closes for 60 seconds.

## PUMP CONTROLLERS - COMPACT

Code	No of Pumps	Phase / Voltage	Overload Rating	Enclosure Size
FPC-37001	Single	1 Phase / 230Vac	0.1 - 6 Amp	300x300x150mm
FPC-37002	Single	1 Phase / 230Vac	5 - 16 Amp	300x300x150mm
FPC-37010	Dual	1 Phase / 230Vac	0.1 - 6 Amp	300x300x150mm
FPC-37020	Dual	1 Phase / 230Vac	5 - 16 Amp	300x300x150mm

# PUMP CONTROLLERS STANDARD

## ELECTRONIC OVERLOAD

MATElec Australia's highly popular Standard Range of pump controllers are designed to control one or two pumps, featuring a keypad interface and control module with dipswitches for configuring the controller to suit various level and pressure control applications. Housed in robust powder coated metal enclosures, the Electronic Overload version utilises a control module with built in electronic overload to suit a wider range of single phase pump sizes.



### HARDWARE FEATURES

#### Enclosure:

- Powder coated mild steel enclosure with removable gland plate
- IP54 rated with single door or IP56 rated with inner door

#### Protection:

- Pad-lockable mains power isolator switch
- Low voltage control and input circuitry
- Individual pump isolation (dual pump)
- Wide range electronic overload protection of pumps, built into PCB
- Electronic short and overload protection of strobe & buzzer
- Din rail mounted terminal connections

#### Control & interface:

- Single or dual pump keypad interface:
  - Indicator lights for power on, high & low level alarm, pump run, pump fault/overload and prime loss
  - Push buttons for alarm mute/reset, pump auto/off/manual control
- PCB control module with dipswitches for adjusting configuration
- Visual (strobe) and mutable audible (buzzer) alarms

#### Inputs:

- Single phase (230Vac) power supply
- 4x digital 12Vdc inputs for float, pressure or flow switches
- Digital 12Vdc input for additional external mute button
- Standard terminal setup: Low level (not for single door version), pump stop, pump start and high level float switches

#### Outputs:

- 1 or 2x pump supply outputs
- BMS volt free output for common fault.

### TYPICAL APPLICATIONS

#### Level control:

- Submersible sewage
- Submersible stormwater
- Water transfer pumping

#### Pressure control:

- Pressure boosting.

### MODIFICATION OPTIONS

- Max pump run time protection
- External mute button
- 316 stainless steel enclosure (with inner door only).

## FUNCTION FEATURES

- **High level alarm delay** - Avoids nuisance alarms caused by water level oscillation
- **Smart chirp mode alarms** - Alarms automatically silence after 5 minutes if not muted, then chirp every 5 minutes
- **Manual control** - Manual pump mode with optional 5 minute timeout to revert back to auto mode
- **Duty sharing and alternation** - Duty pump alternates on pump start and after 30 minutes of continuous running in alternation mode, or after 6 hours of accumulated running in circulation mode (dual pump versions)
- **Pump staging and destaging** - Second pump is staged into operation on high level float or lag pump pressure switch closing and destaged when no longer required (dual pump versions)
- **Staggered pump start** - Prevents excessive current draw and reduces water surge (dual pump versions)
- **Level control mode** - Pump out operation controlled by pump stop, pump start and high level float switches
- **Maintain minimum level** - Ensures minimum tank level is maintained if pump does not run for 4 hours, and pump stop input is closed
- **Pressure control mode** - Pressure boost operation controlled by lead pump, lag pump (dual pump versions) and low pressure switches.

## FAULT PROTECTION

- **Pump overload protection** - Shuts down pumps on overload, with automatic duty alternation (dual pump versions)
- **Pump anti-seize protection** - Runs pumps periodically during low use to prevent seizing
- **High level alarm** - Can be configured with 15 minute delay and auto reset for stormwater applications, or 5 minute delay and manual alarm reset only for sewage applications
- **Low level alarm** - Locks out pumps until manually reset, to prevent dry running
- **Low flow/prime loss protection** - Activates if a pump is running but there is no flow for 2 minutes (if using flow switch in input 1 instead of low level float switch)
- **Low pressure alarm** - Shuts down pumps if low pressure input closes for 60 seconds.

## ADDITIONAL RANGES AVAILABLE

### Hot Water Circulation (dual pump):

- FPC-30005 & FPC-30005-TC (page 149).

## PUMP CONTROLLERS - STANDARD - ELECTRONIC OVERLOAD - SINGLE DOOR

Code	No of Pumps	Phase / Voltage	Overload Rating	Enclosure Size
FPC-15002-LR	Single	1 Phase / 230Vac	0.1 - 6 Amp	400x300x150mm
FPC-15002-HR	Single	1 Phase / 230Vac	5 - 16 Amp	400x300x150mm

## PUMP CONTROLLERS - STANDARD - ELECTRONIC OVERLOAD - WITH INNER DOOR

Code	No of Pumps	Phase / Voltage	Overload Rating	Enclosure Size
FPC-15005-LR	Single	1 Phase / 230Vac	0.1 - 6 Amp	400x300x200mm
FPC-15005-HR	Single	1 Phase / 230Vac	5 - 16 Amp	400x300x200mm
FPC-30024	Dual	1 Phase / 230Vac	0.1 - 6 Amp	400x300x200mm
FPC-30026	Dual	1 Phase / 230Vac	5 - 16 Amp	400x300x200mm

For control of three phase pumps or controllers with thermal overload protection, see our Standard Range (page 140)

# PUMP CONTROLLERS STANDARD

MATElec Australia's highly popular Standard Range of pump controllers are designed to control one or two pumps, featuring a keypad interface and control module with dipswitches for configuring the controller to suit various level and pressure control applications. Housed in robust powder coated metal enclosures, the controllers utilise contactors and thermal overload protection for the pumps and up to 4 digital inputs for control, with many additional options such as BMS outputs and SMS alarm messaging available.



## HARDWARE FEATURES

### Enclosure:

- Powder coated mild steel enclosure with removable gland plate
- IP54 single door or IP56 with inner door.

### Protection:

- Pad-lockable mains power isolator switch
- Circuit breaker protected low voltage control and input circuitry
- Individual pump isolation
- Contactor and thermal overload protection of pump motors
- Din rail mounted terminal connections

### Control & interface:

- Single or dual pump keypad interface:
  - Indicator lights for power on, high & low level alarm, pump run, pump fault/overload and prime loss
  - Push buttons for alarm mute/reset, pump auto/off/manual control
- PCB control module with dipswitches for adjusting configuration
- Visual (strobe) and mutable audible (buzzer) alarms

### Inputs:

- Single phase (230Vac) or three phase (400Vac) power supply
- 4x digital 12Vdc inputs for float, pressure or flow switches
- Standard terminal setup: Low level (not for single door version), pump stop, pump start and high level float switches

### Outputs:

- 1 or 2x pump supply outputs
- BMS volt free output for common fault (Inner Door version), or:
- BMS volt free outputs for power on, high level, individual pump run and fault (BMS version only)
- Coded data output for connection to remote status indicators (page 151), BMS module (page 153) or SMS alarm status communicator (page 154).

## TYPICAL APPLICATIONS

### Level control:

- Submersible sewage
- Submersible stormwater
- Water transfer pumping

### Pressure control:

- Pressure boosting.

## MODIFICATION OPTIONS

- /SMS - With ME-Link module for SMS alarm/status messaging
- /BBHLS - With battery backup high level alarm
- /CON - With conductivity relays and inputs for common, stop, start and high level probes
- /GEN - With generator inlet socket and manual changeover switch
- /ATS - With automatic generator changeover switch
- /INT - With intrinsically safe input barrier relay and inputs for working and high level floats
- Individual pump RCD protection
- Pump thermistor inputs
- Mine spec enclosure
- 316 stainless steel enclosure
- Pump max run time protection.

## FUNCTION FEATURES

- **High level alarm delay** - Avoids nuisance alarms caused by water level oscillation
- **Smart chirp mode alarms** - Alarms automatically silence after 5 minutes if not muted, then chirp every 5 minutes
- **Manual control** - Manual pump mode with optional 5 minute timeout to revert back to auto mode
- **Duty sharing and alternation** - Duty pump alternates on pump start and after 30 minutes of continuous running in alternation mode, or after 6 hours of accumulated running in circulation mode (dual pump versions)
- **Pump staging and destaging** - Second pump is staged into operation on high level float or lag pump pressure switch closing and destaged when no longer required (dual pump versions)
- **Staggered pump start** - Prevents excessive current draw and reduces water surge (dual pump versions)
- **Level control mode** - Pump out operation controlled by pump stop, pump start and high level float switches
- **Maintain minimum level** - Ensures minimum tank level is maintained if pump does not run for 4 hours, and pump stop input is closed
- **Pressure control mode** - Pressure boost operation controlled by lead pump, lag pump (dual pump versions) and low pressure switches.

## FAULT PROTECTION

- **Pump overload protection** - Shuts down pumps on overload, with automatic duty alternation (dual pump versions)
- **Pump anti-seize protection** - Runs pumps periodically during low use to prevent seizing
- **High level alarm** - Can be configured with 15 minute delay and auto reset for stormwater applications, or 5 minute delay and manual alarm reset only for sewage applications
- **Low level alarm** - Locks out pumps until manually reset, to prevent dry running
- **Low flow/prime loss protection** - Activates if a pump is running but there is no flow for 2 minutes (if using flow switch in input 1 instead of low level float switch)
- **Low pressure alarm** - Shuts down pumps if low pressure input closes for 60 seconds.

## PUMP CONTROLLERS - STANDARD - SINGLE DOOR

Code	No of Pumps	Phase / Voltage	Enclosure Size
FPC-15006	Single	3 Phase / 400Vac	400x300x150mm
FPC-30010	Dual	1 Phase / 230Vac	400x300x150mm
FPC-30030	Dual	3 Phase / 400Vac	400x300x150mm

## PUMP CONTROLLERS - STANDARD - WITH INNER DOOR

Code	No of Pumps	Phase / Voltage	Enclosure Size
FPC-15007	Single	3 Phase / 400Vac	400x300x200mm
FPC-30020	Dual	1 Phase / 230Vac	400x300x200mm
FPC-30040	Dual	3 Phase / 400Vac	400x400x200mm

See our Standard - Electronic Overload Range (page 138) for single pump, single phase controllers with single door or inner door, which feature a more cost effective control module two wide range electronic overload options, instead of the -AA to -E thermal overload options found on these controllers.

## PUMP CONTROLLERS - STANDARD - WITH BMS

Code	No of Pumps	Phase / Voltage	Enclosure Size
FPC-15205	Single	1 Phase / 230Vac	400x300x200mm
FPC-15207	Single	3 Phase / 400Vac	400x300x200mm
FPC-30220	Dual	1 Phase / 230Vac	400x400x200mm
FPC-30240	Dual	3 Phase / 400Vac	400x400x200mm

## OVERLOAD SELECTION

Code Suffix	Overload Rating
-AA	1.6 - 2.5 Amp
-A	2.5 - 4 Amp
-B	4 - 6 Amp
-BB	5.5 - 8 Amp
-C	7 - 10 Amp
-D	9 - 13 Amp
-E	12 - 18 Amp

Additional overload ratings available on request.

**Note:** Enclosure sizes may increase for higher overload ratings.

## OTHER RANGES AVAILABLE

### Rain/mains changeover (dual):

- FPC-32020/40, FPC-32220/40 (page 146)

### Hot water circulation (dual):

- FPC-30205 & FPC-30207. (page 150)

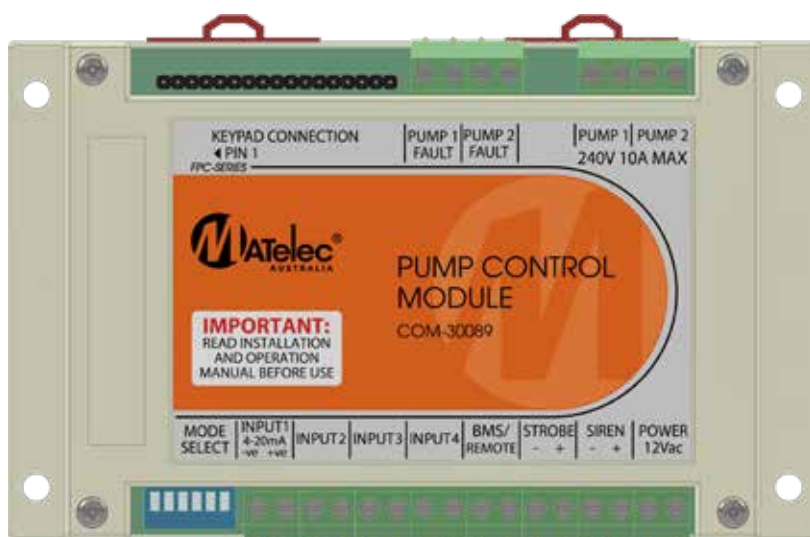
### Soft Start:

- FPC-30040-S & FPC-30240-S.

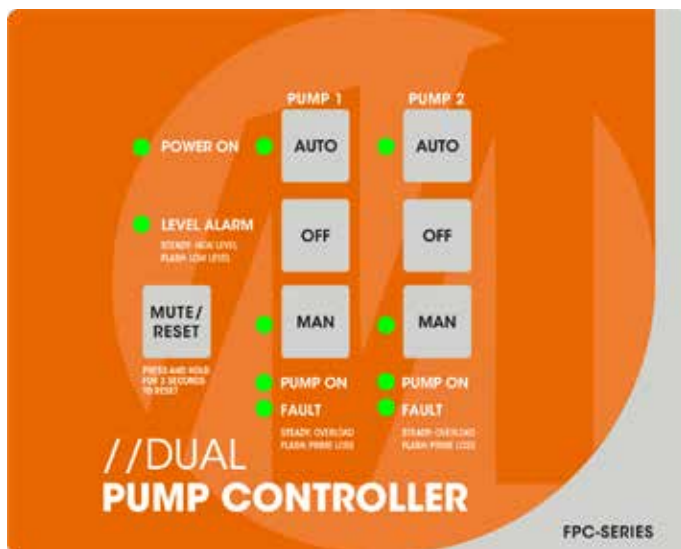
# PUMP CONTROLLERS STANDARD

## REPLACEMENT MODULES & KEYPADS

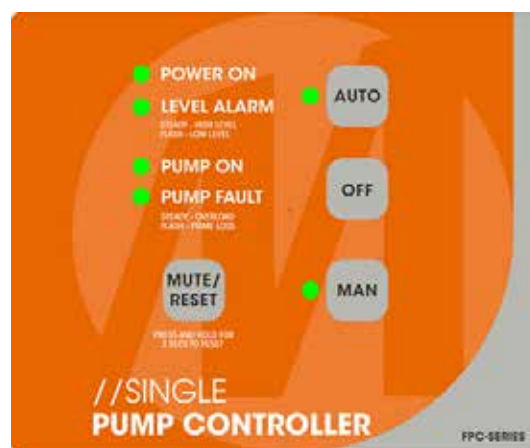
Replacement keypads and PCB control modules for our Standard Range of pump controllers (page 140).



COM-30089 Pump Control Module with COM-30301 Overlay



COM-30099 Dual Pump Keypad



COM-30115 Single Pump Keypad

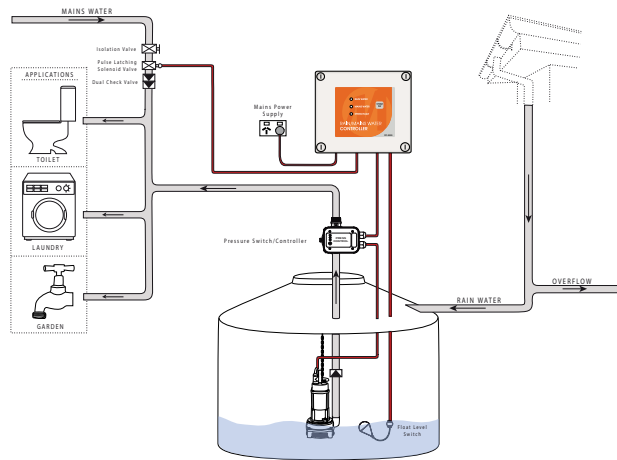
### STANDARD RANGE - REPLACEMENT MODULES & KEYPADS

Code	Description
COM-30089-SPC	Pump Control Module - Single Pump
COM-30089-DPC	Pump Control Module - Dual Pump
COM-30301	Pump Control Module Overlay
COM-30115	Keypad - Single Pump
COM-30099	Keypad - Dual Pump

# RAIN/MAINS PUMP CONTROLLERS

## QUICK PLUG

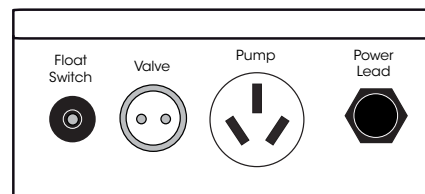
The unique MATElec Rain/Mains Pump Controller is designed to provide a continuous supply of water for a variety of uses, whilst prioritising and maximising the use of rain water. The system comprises of a controller, a pulse latching solenoid valve and float switches. The controller not only monitors the level of stored rain water and switches the valve accordingly, but provides a switched output for the control of a single phase pump. Pre-fitted with sockets for the valve, pump and float switch, this Quick Plug version requires no hard wiring, making it ideal for DIY installations.



Quick plug float switch



Pulse latching solenoid valve



Base view

### HARDWARE FEATURES

- Enclosure:**
  - IP54 rated, polycarbonate enclosure with mounting brackets
- Protection:**
  - Low voltage control and input circuitry
  - Quick plug connections - no hard wiring needed
- Control & interface:**
  - Rain/mains keypad interface:
    - Indicator lights for mains and tank water use
    - System test button for checking pump and valve function
  - Rain/mains PCB control module
- Inputs:**
  - Single phase (230Vac) power supply
  - Quick plug digital 12Vdc input for low level float switch
  - 12Vdc input on control module for pressure switch if required
- Outputs:**
  - GPO for power supply to pump (240Vac 6Amp max)
  - Quick plug 12Vdc pulse output for solenoid valve
- Included with panel:**
  - 10 Amp 3 pin 1.5m power supply lead
  - 25mm female/female 12Vdc pulse latching solenoid valve with quick plug connector (other sizes available)
  - 9006 float switch with 10m cable and quick plug connector.

### FUNCTION FEATURES

- Rain water use** - If rain water becomes available, the controller pulse closes the mains water valve and the pump will run (controlled by pressure switch if connected).

### FAULT PROTECTION

- Mains water use** - In the event of rain water depletion or power failure, the controller pulses the valve open for mains water use.

### RAIN/MAINS PUMP CONTROLLERS - QUICK PLUG

Code	No of Pumps	Phase / Voltage	Amp Rating	Enclosure Size
FPC-12721-HD	Single	1 Phase / 230Vac	6 Amp Max	200x160x95mm

# RAIN/MAINS PUMP CONTROLLERS

## SINGLE PUMP

The unique MATElec Rain/Mains Single Pump Controller is designed to provide a continuous supply of water for a variety of uses, whilst prioritising and maximising the use of rain water. The system comprises of a controller, a pulse latching solenoid valve and float switches. The controller not only monitors the level of stored rain water and switches the valve accordingly, but controls a single or three phase pump in a pressure pumping system.



### HARDWARE FEATURES

#### Enclosure:

- IP56 rated, powder coated mild steel enclosure with inner door and removable gland plate

#### Protection:

- Pad-lockable mains power isolator switch
- Circuit breaker protected low voltage control and input circuitry
- Contactor and thermal overload protection of pump
- Din rail mounted terminal connections

#### Control & interface:

- Rain/mains keypad interface:
  - Indicator lights for mains and tank water use, system fault
  - System test/reset button for checking pump and valve function, resetting faults
- Rain/mains PCB control module

#### Inputs:

- Single phase (230Vac) or three phase (400Vac) power supply
- 2x digital 12Vdc inputs for low level float switch and working level pressure switch

#### Outputs:

- Pump supply output
- 12Vdc pulse output for solenoid valve

#### Included with panel:

- 25mm female/female 12Vdc pulse latching solenoid valve.

### FUNCTION FEATURES

- **Rain water use** - If rain water becomes available, the controller pulse closes the mains water valve and the pressure switch will control the pump.

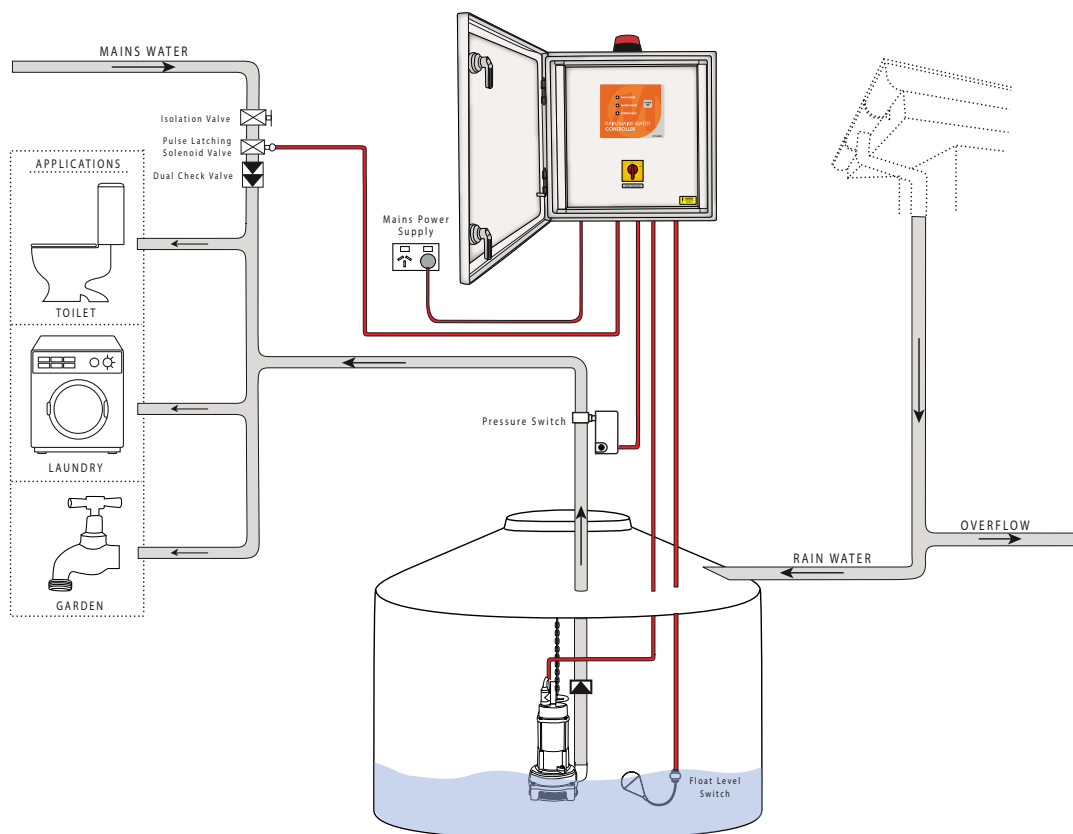
### FAULT PROTECTION

- **Mains water use** - In the event of rain water depletion, pump fault or power failure, the controller shuts off the pump and pulses the valve open for mains water use
- **Pump overload protection** - Shuts down pump on overload.

### MODIFICATION OPTIONS

- 316 stainless steel enclosure
- Generator input socket and automatic changeover
- Other valve sizes available.





### RAIN/MAINS PUMP CONTROLLERS - SINGLE PUMP

Code	No of pumps	Phase / Voltage	Enclosure Size
FPC-12724	Single	1 Phase / 230Vac	400x300x200mm
FPC-12725	Single	3 Phase / 400Vac	400x400x200mm

### OVERLOAD SELECTION

Code Suffix	Overload Rating
-AA	1.6 - 2.5 Amp
-A	2.5 - 4 Amp
-B	4 - 6 Amp
-BB	5.5 - 8 Amp
-C	7 - 10 Amp
-D	9 - 13 Amp
-E	12 - 18 Amp

Additional overload ratings available on request

# RAIN/MAINS PUMP CONTROLLERS

## DUAL PUMP

The unique MATEtec Rain/Mains Dual Pump Controller is designed to provide a continuous supply of water for a variety of uses, whilst prioritising and maximising the use of rain water. The system comprises of a controller, a pulse latching solenoid valve and float switches. The controller not only monitors the level of stored rain water and switches the valve accordingly, but controls two single or three phase pumps in a pressure pumping system.



### PHYSICAL FEATURES

#### Enclosure:

- IP56 rated, powder coated mild steel enclosure with inner door and removable gland plate

#### Protection:

- Pad-lockable mains power isolator switch
- Circuit breaker protected low voltage control and input circuitry
- Individual pump isolation
- Contactor and thermal overload protection of pumps
- Din rail mounted terminal connections

#### Control & interface:

- Dual pump keypad interface:
  - Indicator lights for power on, high & low level alarm, pump run, pump fault/overload and prime loss
  - Push buttons for alarm mute/reset, pump auto/off/manual control
- Rain/mains keypad interface:
  - Indicator lights for mains and tank water use, system fault

- System test/reset button for checking pump and valve function, resetting faults
- PCB control module with dipswitches for adjusting configuration
- Rain/mains PCB control module for rain/mains changeover functionality
- Visual (strobe) and mutable audible (buzzer) alarms

#### Inputs:

- Single phase (230Vac) or three phase (400Vac) power supply
- 4x digital 12Vdc inputs for low level float switch, lead, lag and low pressure switches

#### Outputs:

- 2x pump supply outputs
- 12Vdc pulse output for solenoid valve
- BMS volt free outputs for power on, mains water, pump run and pump fault (BMS version only)

#### Included with panel:

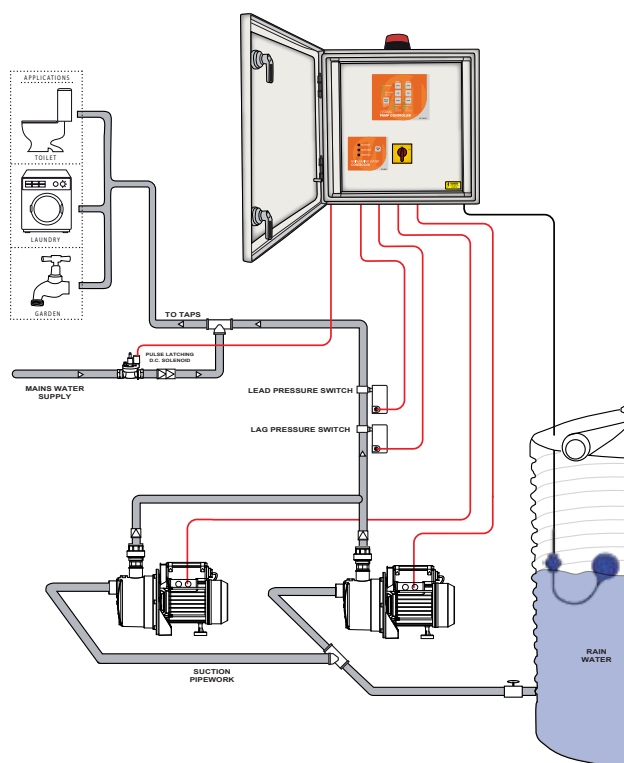
- 25mm female/female 12Vdc pulse latching solenoid valve.

## MODIFICATION OPTIONS

- 316 stainless steel enclosure
- Generator input socket and automatic changeover
- Me-Link 4G SMS alarm sender
- Conductivity probes inputs and rain/mains level indication keypad
- Other valve sizes available.

## FUNCTIONS

- **Smart chirp mode alarms** - Alarms automatically silence after 5 minutes if not muted, then chirp every 5 minutes
- **Manual control** - Manual pump mode with optional 5 minute timeout to revert back to auto mode
- **Duty sharing and alternation** - Duty pump alternates on pump start and after 30 minutes of continuous running in alternation mode, or after 6 hours of accumulated running in circulation mode
- **Pump staging and destaging** - Second pump is staged into operation on high level and destaged when no longer required
- **Staggered pump start** - Prevents excessive current draw and reduces water surge
- **Controlled by** - Lead pump, lag pump and low pressure switches
- **Rain water use** - If rain water becomes available, the controller pulse closes the mains water valve and the pressure switch will control the pump.



## FAULT PROTECTION

- **Pump overload protection** - Shuts down pump/s on overload, with automatic duty alternation
- **Low pressure alarm** - Shuts down pump/s if unable to build pressure within 60 seconds, after the low pressure input closes
- **Mains water use** - In the event of rain water depletion, pump fault or power failure, the controller shuts off the pump and pulses the valve open for mains water use.

## RAIN/MAINS PUMP CONTROLLERS - DUAL PUMP

Code	No of pumps	Phase / Voltage	Enclosure Size
FPC-32020	Dual	1 Phase / 230Vac	400x400x200mm
FPC-32040	Dual	3 Phase / 400Vac	400x400x200mm

## RAIN/MAINS PUMP CONTROLLERS - DUAL PUMP - WITH BMS

Code	No of pumps	Phase / Voltage	Enclosure Size
FPC-32220	Dual	1 Phase / 230Vac	400x400x200mm
FPC-32240	Dual	3 Phase / 400Vac	400x400x200mm

## OVERLOAD SELECTION

Code Suffix	Overload Rating
-AA	1.6 - 2.5 Amp
-A	2.5 - 4 Amp
-B	4 - 6 Amp
-BB	5.5 - 8 Amp
-C	7 - 10 Amp
-D	9 - 13 Amp
-E	12 - 18 Amp

Additional overload ratings available on request

# HOT WATER CIRCULATION PUMP CONTROLLERS

ECONO



## HARDWARE FEATURES

### Enclosure:

- IP54 rated, polycarbonate enclosure with mounting brackets

### Protection:

- Circuit breaker protected low voltage control and input circuitry
- Din rail mounted terminal connections

### Control & interface:

- Selector switch for auto/manual operation of pumps
- 7 day 24 hour digital timeclock for duty alternation

### Inputs:

- Single phase (230Vac) power supply

### Outputs:

- 2x pump supply outputs (240Vac 6Amp max).

## FUNCTION FEATURES

### Operation:

- 4 hour maximum pump run timer and automatic duty alternation.

## HWC PUMP CONTROLLERS - ECONO

Code	Amp Rating	Enclosure Size
FPC-30002	6 Amp Max	200x160x95mm

# HOT WATER CIRCULATION PUMP CONTROLLERS



## STANDARD - ELECTRONIC OVERLOAD

### HARDWARE FEATURES

#### Enclosure:

- IP54 rated, powder coated mild steel enclosure with removable gland plate

#### Protection:

- Pad-lockable mains power isolator switch
- Low voltage control and input circuitry
- Individual pump isolation
- Wide range electronic overload protection of pumps, built into PCB
- Electronic short and overload protection of strobe & buzzer
- Din rail mounted terminal connections

#### Control & interface:

- Single or dual pump keypad interface:
  - Indicator lights for power on, high & low level alarm, pump run, pump fault/overload and prime loss
  - Push buttons for alarm mute/reset, pump auto/off/manual control
- PCB control module with dialswitches for adjusting configuration
- Visual (strobe) and mutable audible (buzzer) alarms
- Adjustable 7 day 24 hour digital timeclock for configuring operation times when hot water will be required (-TC version only)

#### Inputs:

- Single phase (230Vac) power supply
- Digital 12Vdc inputs for thermostat
- Digital 12Vdc input for additional external mute button

#### Outputs:

- 2x pump supply outputs
- BMS volt free output for common fault.

### FAULT PROTECTION

- **Pump overload protection** - Shuts down pump/s on overload, with automatic duty alternation.



### FUNCTION FEATURES

- **Smart chirp mode alarms** - Alarms automatically silence after 5 minutes if not muted, then chirp every 5 minutes
- **Manual control** - Manual pump mode with optional 5 minute timeout to revert back to auto mode
- **Duty sharing and alternation** - Duty pump alternates after 6 hours of accumulated running in circulation mode
- **Controlled by** - Thermostat, duty pump will run while this is closed due to water cooling down
- **Adjustable operation time** - Timeclock allows user to configure the time of day/week that the system will operate during (-TC version only).

### HWC PUMP CONTROLLERS - STANDARD - ELECTRONIC OVERLOAD

Code	No of Pumps	Phase / Voltage	Overload Rating	Enclosure Size
FPC-30005	Dual	1 Phase / 230Vac	0.1 - 6 Amp	400x300x150mm

### HWC PUMP CONTROLLERS - STANDARD - ELECTRONIC OVERLOAD - WITH TIMECLOCK

Code	No of Pumps	Phase / Voltage	Overload Rating	Enclosure Size
FPC-30005-TC	Dual	1 Phase / 230Vac	0.1 - 6 Amp	400x300x150mm

# HOT WATER CIRCULATION PUMP CONTROLLERS

## STANDARD - WITH BMS

### HARDWARE FEATURES

#### Enclosure:

- IP56 rated, powder coated mild steel enclosure with inner door and removable gland plate

#### Protection:

- Pad-lockable mains power isolator switch
- Circuit breaker protected low voltage control and input circuitry
- Individual pump isolation
- Contactor and thermal overload protection of pump motors
- Din rail mounted terminal connections

#### Control & interface:

- Single or dual pump keypad interface:
  - Indicator lights for power on, high & low level alarm, pump run, pump fault/overload and prime loss
  - Push buttons for alarm mute/reset, pump auto/off/manual control
- PCB control module with dipswitches for adjusting configuration
- Visual (strobe) and mutable audible (buzzer) alarms
- Adjustable 7 day 24 hour digital timeclock for configuring operation times when hot water will be required

#### Inputs:

- Single phase (230Vac) or three phase (400Vac) power supply
- 1x digital 12Vdc input for thermostat

#### Outputs:

- 2x pump supply outputs
- BMS volt free outputs for power on, individual pump run and fault.



### FUNCTION FEATURES

- **Smart chirp mode alarms** - Alarms automatically silence after 5 minutes if not muted, then chirp every 5 minutes
- **Manual control** - Manual pump mode with optional 5 minute timeout to revert back to auto mode
- **Duty sharing and alternation** - Duty pump alternates after 6 hours of accumulated running in circulation mode
- **Controlled by** - Thermostat, duty pump will run while this is closed due to water cooling down
- **Adjustable operation time** - Timeclock allows user to configure the time of day/week that the system will operate during.

### FAULT PROTECTION

- **Pump overload protection** - Shuts down pump/s on overload, with automatic duty alternation.

### OVERLOAD SELECTION

Code Suffix	Overload Rating
-AA	1.6 - 2.5 Amp
-A	2.5 - 4 Amp
-B	4 - 6 Amp
-BB	5.5 - 8 Amp
-C	7 - 10 Amp
-D	9 - 13 Amp
-E	12 - 18 Amp

### HWC PUMP CONTROLLERS - STANDARD - WITH BMS

Code	No of Pumps	Phase / Voltage	Enclosure Size
FPC-30205	Dual	1 Phase / 230Vac	400x400x200mm
FPC-30207	Dual	3 Phase / 400Vac	400x400x200mm

Additional overload ratings available on request.

**Note:** Enclosure sizes may increase for higher overload ratings.

# REMOTE STATUS INDICATOR



Remote Status Indicator - Single Pump



Remote Status Indicator - Dual Pump

## HARDWARE FEATURES

### Panel:

- Wall plate style panel with mounting brackets

### Protection:

- Low voltage control and input circuitry

### Control & Interface:

- Audible (buzzer) alarm
- Electronic keypad
- Indicator lights for power on, level alarm and individual pump fault
- Audible alarm mute/reset/test button

### Inputs:

- Input for connection to BMS volt free coded data output from a MATElec Standard pump controller (page 140).

## FUNCTION FEATURES

- Provides system status indication for a pump controller in a more convenient location
- As an alarm condition occurs at the pump station, the appropriate indicator light is illuminated and the audible alarm will sound
- If not muted, the buzzer will automatically silence after 5 minutes.

## REMOTE STATUS INDICATORS

Code	No of Pumps	Panel Size
FPC-15100	Single Pump	120x75x15mm
FPC-30100	Dual Pump	120x75x15mm

# REMOTE ALARM INDICATORS



Remote Alarm Indicator - Strobe Only

Remote Alarm Indicators - Strobe & Buzzer

## HARDWARE FEATURES

### Enclosure:

- IP54 rated polycarbonate enclosure with mounting brackets

### Protection:

- Low voltage control and input circuitry (not 230Vac version)

### Control & interface:

- Visual (strobe) alarm
- Audible (buzzer) alarm (strobe/buzzer version)
- Audible alarm mute button (strobe/buzzer version)

### Inputs:

- 12Vdc or 230Vac input (strobe/buzzer version)
- 12/24Vdc / 230Vac input (strobe only version).

## FUNCTION FEATURES

- Provides a remote visual and audible alarm for a control panel.

## REMOTE ALARM INDICATORS

Code	Description	Voltage	Enclosure Size
FPC-12652	Remote Alarm Indicator - Strobe & Buzzer	12 Vdc	175x130x80mm
FPC-12653	Remote Alarm Indicator - Strobe & Buzzer	230 Vac	175x130x80mm
FPC-12655	Remote Alarm Indicator - Strobe Only	12/24 Vdc / 230Vac	175x130x80mm



## HARDWARE FEATURES

### Panel:

- IP55 rated, polycarbonate enclosure

### Protection:

- Low voltage control and input circuitry

### Control & interface:

- BMS interface board

### Inputs:

- Single phase (230Vac) power supply
- Input for connection to BMS volt free coded data output from a MATElec Standard pump controller (page 140)

### Outputs:

- BMS volt free outputs for power failure, level alarm, pump 1 fault and pump 2 fault

### Included with panel:

- Power pack with 3 pin lead and plug.

## FUNCTION FEATURES

- Connects to an existing MATElec pump controller to provide 4 volt free outputs for interfacing with a computer or other monitoring equipment.



## BMS MODULE

Code	Description	Enclosure Size
FPC-30110	BMS Module	125x90x60mm

# SMS ALARM/STATUS COMMUNICATORS

## ME-Link<sup>®</sup> IoT/SMS MODULE

MATElec Australia's SMS Alarm/Status Communicator features our newly designed ME-Link module, which is a cellular CAT-M1 remote monitoring and control device utilising the 700Mhz frequency for 'best in class' signal strength. The ME-Link reports status information and active alarms from up to 8 digital inputs, which can be connected to volt free outputs on a control panel or used for sensor inputs. The ME-Link Module can also be utilised to control external devices with the two onboard relay outputs, and uses easy to set up SMS commands to configure the operation and alarms without the need for any additional software. The Communicator is available in a flexible version suitable for any application, as well a version designed to communicate status/alarms from our Standard Single and Dual Pump Controllers via their BMS/remote output.



ME-Link IoT/SMS Module

### HARDWARE FEATURES

#### Enclosure:

- IP54 rated, powder coated mild steel enclosure with removable gland plate

#### Protection:

- Low voltage control and input circuitry
- Din rail mounted terminal connections

#### Control & interface:

- ME-Link IoT/SMS module (requires micro SIM card from network provider with CAT-M1 enabled)
- Vandal resistant antenna (remote mount high gain antenna also available for low signal strength areas)
- BMS interface board for interface between ME-Link and Single/Dual Pump Controller (FPC-30120)
- Battery backup for mains power failure

#### Inputs:

- Single phase (230Vac) power supply
- 6x Digital inputs for connection to volt free outputs on any control panel or for sensor inputs (only 2x on FPC-30120)
- Input for connection to BMS/remote output from a MATElec Standard Single or Dual Pump Controller (FPC-30120)

#### Outputs:

- 2x Relay outputs (on ME-Link module)

#### Included with panel:

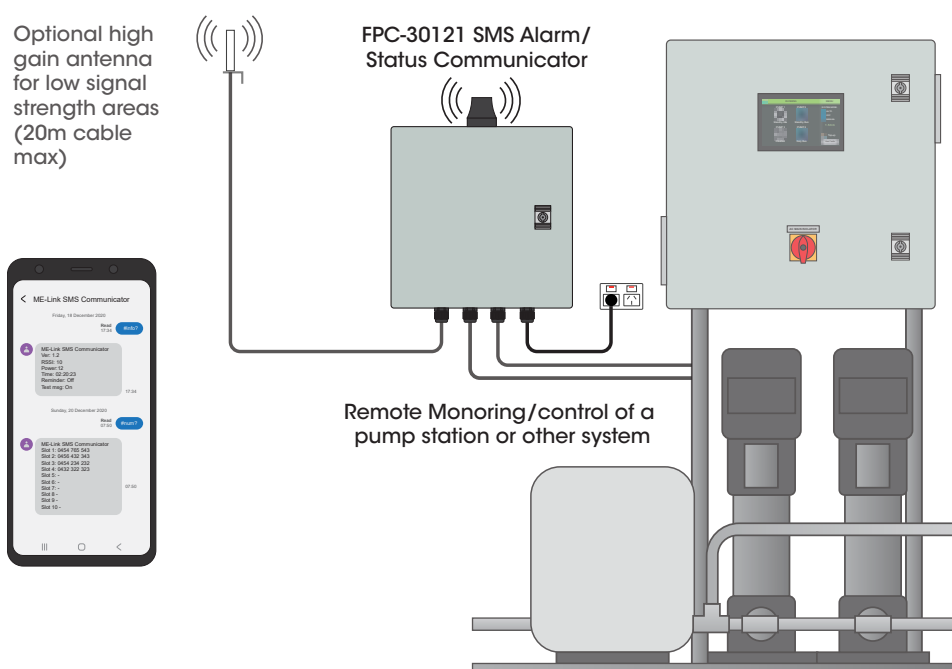
- 10 Amp 3 pin 1.5m power supply lead.

Micro SIM card required from network provider with CAT-M1 enabled (currently only Telstra has CAT-M1 enabled)



15mm

12mm



## FUNCTION FEATURES

- SMS messaging from up to 8 digital inputs, including power/battery supply status
- Easy programming with SMS commands
- Up to 10 phone numbers can receive messages
- Smart help responses on incorrect commands
- Once, repeat or sequential notification messaging
- Repeat or sequential messaging until user accepted
- Daily reminder messages for active alarms
- Remote control of systems and or devices via the 2 relay outputs
- Periodic test messages to ensure ME-Link is connected and operating
- Temporary disabling of notifications for site servicing
- Logged data for 'last alarm', 'acknowledgment time and number'.

## SMS ALARM/STATUS COMMUNICATORS

Code	Description	Enclosure Size
FPC-30121	SMS Alarm/Status Communicator	300x300x150mm
FPC-30120	SMS Alarm/Status Communicator - Single/Dual Pump Interface	300x300x150mm

# REMOTE SIGNAL COMMUNICATORS

## RADIO

### HARDWARE FEATURES

#### Enclosures:

- IP55 rated, powder coated mild steel enclosures with removable gland plates

#### Protection:

- Low voltage control and input circuitry
- Din rail mounted terminal connections

#### Inputs:

- Single phase (230Vac) power supply
- Solar power supply to transmitter panel (solar version)
- Digital 12Vdc input for remote signal

#### Outputs:

- Relay switched output for connection to a remote signal

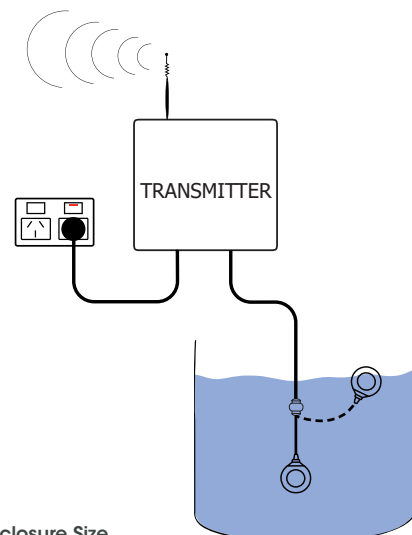
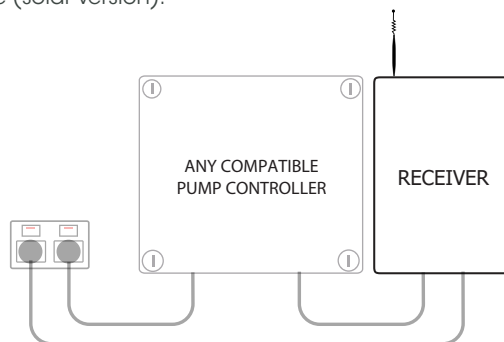
#### Included with panel:

- Transmitter and receiver panels with antennas
- 10 Amp 3 pin 1.5m power supply leads
- Internal rechargeable battery for backup on power failure
- Solar panel and mounting brackets (solar version).



### FUNCTION FEATURES

- Enables remote switching of pump controllers where an interlink cable is too expensive and impractical
- Communicates a signal burst every 60 seconds, ensuring reliability and consistency
- 500m line of sight signal range
- Solar powered transmitter allows signal to be transmitted from a location where mains power is unavailable (solar version).



### REMOTE SIGNAL COMMUNICATORS - RADIO

Code	Description	Enclosure Size
FPC-13095	Remote Signal Communicator - Radio	2x 300x200x150mm
FPC-13096	Remote Signal Communicator - Solar Powered Radio	2s 300x200x150mm

# REMOTE SIGNAL COMMUNICATORS



## TWO WAY SMS

### HARDWARE FEATURES

#### Enclosures:

- IP54 rated, powder coated mild steel enclosure with removable gland plate

#### Protection:

- Low voltage control and input circuitry
- Din rail mounted terminal connection

#### Control & interface:

- ME-Link IoT/SMS modules (require 2x micro SIM cards from network provider with CAT-M1 enabled)
- Vandal resistant antennas (remote mount high gain antennas also available for low signal strength areas)
- Battery backup for mains power failure

#### Inputs (both panels):

- Single phase (230Vac) power supply
- 2x Digital 12Vdc inputs for remote signals
- 4x Digital 12Vdc inputs for additional status/alarm messaging to mobile phones (not for remote signals)

#### Outputs:

- 2x Digital volt free relay outputs for remote signals

#### Included with panel:

- 10 Amp 3 pin 1.5m power supply leads
- Solar panel and mounting brackets (solar version).

**ME-Link**  
IoT/SMS MODULE



ME-Link IoT/SMS Module

### FUNCTION FEATURES

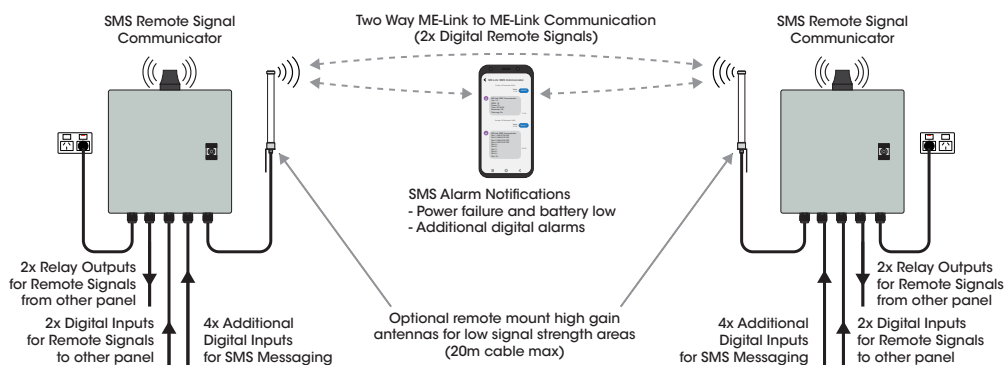
- Transmits 2 digital signals in both directions via the relay outputs, providing a replacement for cables in situations where they are too costly or impractical
- Relay timers for failsafe cut-out if SMS communication is lost
- In addition to remote switching, both Communicators can send text messages to mobile phones from the 2 remote signal inputs, and up to 6 additional digital inputs, including power/battery supply status
- Incorporates all the standard SMS messaging features of the ME-Link module.

2x Micro SIM cards required from network provider with CAT-M1 enabled (currently only Telstra has CAT-M1 enabled)



15mm

12mm



### REMOTE SIGNAL COMMUNICATORS - TWO WAY SMS

Code	Description	Enclosure Size
FPC-13097	Remote Signal Communicator - Two Way SMS	2x 300x300x150mm
FPC-13098	Remote Signal Communicator - Solar Powered Two Way SMS	2x 300x300x150mm

# REMOTE SIGNAL COMMUNICATORS

## TWO WAY RADIO

The 2 Way Radio version of the Remote Signal Communicators transmits up to 2 analog and 6 digital signals in both directions, providing a replacement for cables in situations where they are too costly or impractical to run. Utilising our Modbus I/O modules paired with 900MHz radio transceivers and remote mount high gain antennas, the panels communicate a regular signal, ensuring reliable and consistent communication.



### HARDWARE FEATURES

#### Enclosures:

- IP56 rated, powder coated mild steel enclosures with removable gland plates

#### Protection:

- Low voltage control and input circuitry

#### Control & Interface:

- Modbus I/O modules with radio link fail indication
- 900MHz radio transceivers with signal strength and communication status indication

#### Inputs (both panels):

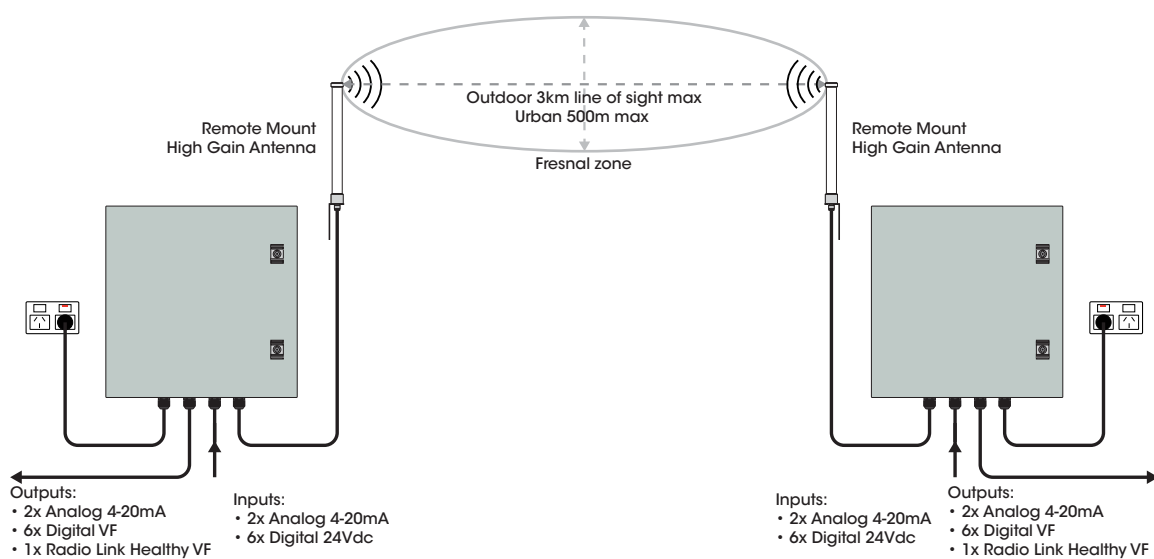
- Single phase (230Vac) power supply
- 2x Analog 4-20mA inputs
- 6x Digital 24Vdc inputs

#### Outputs (both panels):

- 2x Analog 4-20mA passive outputs
- 6x Digital volt free outputs
- 1x Radio link active volt free output

#### Included with panels:

- 10 Amp 3 pin 1.5m power supply leads
- 2x Remote mount high gain antennas with 10m cable.



## FUNCTIONS

- Transmits up to 2 analog and 6 digital signals in both directions, providing a replacement for cables in situations where they are too costly or impractical
- Communicates a regular signal, ensuring reliability and consistency
- The max range of the radio transceivers is 3km in outdoor line of sight applications or 500m in urban applications.
- Antennas require line of sight to operate reliably, with free space in the Fresnel zone.

## REMOTE SIGNAL COMMUNICATOR - TWO WAY RADIO

Code	Description	Enclosure Size
FPC-13099	Remote Signal Communicator - Two Way Radio	2x 400x400x200mm

# AND MUCH MORE...



## HydroWHIZ Pump Controllers

MATElec Australia's HydroWHIZ Controller has been designed with ease of use at the core of the system design. Building on the wealth of the pump control features in the Advanced controller, the HydroWHIZ brings these features into a new age with a colour touch screen interface and a streamlined setup process. In a world where information is power the HydroWHIZ has extensive time and date stamped alarms, logged data, trend graphs and diagnostic pages to provide the user with all the information required for optimisation and preventative maintenance. Featuring the flexibility of level, pressure and temperature system modes with a wide range of functions and protections, the HydroWHIZ controller is ideal for a vast range of applications including water transfer, stormwater and sewage pump out, pressure boosting, constant pressure, hot water circulation and chiller supply, to name a few.



## POWER DISTRIBUTION BOARDS

Provide constant power to pumps with motor mounted variable speed drives. Deluxe power distribution boards feature status indication and auto/off control selector switches for each pump.

## POWER MANAGEMENT SYSTEMS

Provide constant power to a pump controller or other control panel, with automatic changeover of power source on mains failure. Power management systems are available in both generator changeover and battery backup versions.







# TERMS & CONDITIONS

## **MONTREAUX PTY LTD trading as MATElec Australia ACN 160 835 334 ("Company") Trading Terms & Conditions For Sale of Goods**

These Trading Terms & Conditions ("Terms") apply (unless otherwise previously agreed in writing) to the supply of Goods by the Company to Customer from time to time. Any supply of Goods by the Company to the Customer made from time to time after the date of acceptance of these Terms is a supply pursuant to the supply agreement constituted by these Terms & the relevant order accepted by the Company ("Agreement") & any such supply does not give rise to a new or separate agreement.

### **1. Interpretation**

In these Terms unless the contrary intention appears:

**"Additional Charges"** includes all delivery, handling & storage charges, goods & services tax, stamp duty, interest, legal & other costs of recovery of unpaid money & all other government imposts & all money, other than the Purchase Price, payable by the Customer to the Company arising out of the sale of the Goods.

**"Company"** means Montreoux Pty Ltd, ACN 160 835 334 trading as MATElec Australia.

**"Consequential Loss"** means

- i. loss of revenue;
- ii. loss of profit or anticipated profit;
- iii. loss of business;
- iv. loss of business reputation;
- v. loss of opportunities;
- vi. loss of anticipated savings;
- vii. loss of goodwill; &
- viii. any other loss suffered by a party as a result of a breach of this Agreement that cannot reasonably be considered to arise directly & naturally from that breach.

**"Customer"** means the person to or for whom the Goods are to be supplied by the Company.

**"Force Majeure Event"** means any event outside the reasonable control of the Company including acts of God, war, riots, strikes, lock outs, trade disputes, break downs, mechanical failures, interruptions of transport, Government action or any other cause whatsoever, whether or not of a like nature to those specified above.

**"Goods"** means the goods sold to the Customer by the Company & includes any services provided by the Company to Customer.

**"PPSA"** means the Personal Property Securities Act 2009 (Cth), as amended.

**"Purchase Price"** means the list price for the goods as charged by the Company at the date of delivery or such other price as may be agreed by the Company & the Customer prior to delivery of the Goods.

### **2. Order for Goods**

- 2.1 An order given to the Company is binding on the Company & the Customer, if:
  - 2.1.1 a written acceptance is signed for or on behalf of the Company; or
  - 2.1.2 the Goods are supplied by the Company in accordance with the order.
- 2.2 An acceptance of the order by the Company is then to be an acceptance of these Terms by the Company & the Customer & these Terms will override any conditions contained in the Customer's order. The Company reserves the right to accept a part only of any order by notifying the Customer in writing or by delivering the Goods to the Customer. No order is binding on the Company until accepted by it.
- 2.3 An order which has been accepted in whole or in part by the Company cannot be cancelled by the Customer without obtaining the prior written approval of the Company, which it may refuse in its absolute discretion. In the event cancellation of an order is approved by the Company, the Company reserves the right to claim payment from the Customer & the Customer agrees to pay a cancellation fee equivalent to 10% of the price of the order or that part of the order so

### **3. Warranties**

- 3.1 Subject to any of the Company's warranty statements, the Company's liability is limited to, to the extent permissible by law & at the Company's option:
  - 3.1.1 in relation to the Goods:
    - i. the replacement of the products or the supply of equivalent products
    - ii. the repair of the products
    - iii. the payment of the cost of replacing the products or of acquiring equivalent products; or
    - iv. The payment of the cost of having the products repaired
  - 3.1.2 where the Goods are services:
    - i. the supply of service again; or
    - ii. payment of the cost of having the services supplied again.
- 3.2 Any claims to be made against the Company for short delivery of Goods must be lodged with the Company in writing within 7 days of the delivery date.
- 3.3 The Customer shall inspect all Goods immediately after delivery & shall within 7 days of the delivery date & in any case prior to on-selling or otherwise using the Goods, give notice to the Company of any matter or thing by reason of which the Customer alleges the Goods or any part of the Goods are not in accordance with the sale contract & failure to give such notice shall, to the extent permitted by law, constitute unqualified acceptance & a waiver of all such claims by the Customer.
- 3.4 To the extent permitted at law, all other warranties whether implied or otherwise, not set out in these Terms or expressed in any warranty statement provided by the Company, are excluded & the Company is not liable in contract, tort (including, without limitation, negligence or breach of statutory duty) or otherwise to compensate the Customer for any Consequential Loss.

### **4. Delivery**

- 4.1 The times quoted for delivery are estimates only & the Company accepts no liability for failure or delay in delivery of Goods. The Customer is not relieved of any obligation to accept or pay for Goods by reason of any delay in delivery. Goods may be delivered by instalments at the discretion of the Company.
- 4.2 Risk in the Goods passes to the Customer on delivery to the Customer (a) at or in the near vicinity of an address specified by the Customer; (b) into possession of the Customer or its carrier at the premises of the Company; (c) into possession of a carrier at the premises of the Company, engaged by the Company to deliver the Goods to the Customer; (d) to the wharf, rail-yard, or other transport loading station specified by the Customer.
- 4.3 All Additional Charges are payable by the Customer in addition to the Purchase Price of the Goods.
- 4.4 Return of Goods will not be accepted by the Company except by prior agreement in writing with the Company. Any Goods returned will be subject to a cartage & handling charge of 20% of the Purchase Price of those Goods. The Customer agrees that the Company may deduct any cartage & handling charge from any credit of the Customer's account except where the Company agrees that it has supplied the wrong goods.

### **5. Price & Payment**

- 5.1 The Customer must pay the Purchase Price & the Additional Charges to the Company.
- 5.2 If the Customer is in default, the Company may at its option withhold further deliveries or cancel a contract without prejudice to any of its existing rights, withdraw credit or refuse any further credit.
- 5.3 The terms of payment are as follows, unless otherwise agreed to in writing by the Company:
  - (a) in the case of a Customer granted an approved credit account by & with the Company - 30 days from the end of the month of purchase;
  - (b) in any other case, Cash on Delivery (COD)
- 5.4 Interest is charged at the rate of 1.5% per month or part of a month from the expiry of that period until the date payment is received by the Company.
- 5.5 All amounts payable by the Customer under these Terms must be paid without set-off, cross-demand or counter claim of any kind.
- 5.6 Any monies refunded by the Company to the Customer, whether in consequence of the cancellation of an order or otherwise, shall be repaid without interest & after deduction of any amount the Company may be entitled to charge & it is expressly agreed that the Customer shall not make or maintain any claim against the Company for payment of interest on monies refunded or to be refunded.

### **6. Retention of Title**

- 6.1 Ownership, title & property in the Goods & in the proceeds of sale of those Goods remains with the Company until payment in full for the Goods & all sums due & owing by the Customer to the Company on any account has been made. Until the date of payment:
  - 6.1.1 the Customer has the right to sell the Goods in the ordinary course of business;
  - 6.1.2 the Goods are always at the risk of the Customer.

- 6.2 The Customer is deemed to be in default immediately upon the happening of any of the following events:
- 6.2.1 if any payment to the Company is not made promptly before the due date for payment;
- 6.2.2 if the Customer ceases to carry on business or stops or suspends payment or states its intention of so doing or is unable to pay its debts as they fall due or if any cheque or bill of exchange drawn by the Customer payable to the Company is dishonoured;
- 6.3 In the event of a default by the Customer, then, without prejudice to any other rights which the Company may have at law or under this Agreement:
- 6.3.1 the Company or its agents may without notice to the Customer enter the Customer's premises or any premises under the control of the Customer for the purposes of recovering the Goods.
- 6.3.2 the Company may recover & resell the Goods;
- 6.3.3 if the Goods cannot be distinguished from similar Goods which the Customer has or claims to have paid for in full, the Company may in its absolute discretion seize all goods matching the description of the Goods & hold same for a reasonable period so that the respective claims of the Company & the Customer may be ascertained. The Company must promptly return to the Customer any goods the property of the Customer & the Company is in no way liable or responsible for any loss or damage to the Goods or for any loss, damage or destruction to the Customer's business howsoever arising from the seizure of the Goods.
- 6.3.4 In the event that the Customer uses the Goods in some manufacturing or construction process of its own or some third party, then the Customer must hold such part of the proceeds of sale of such manufacturing or construction process as relates to the Goods in trust for the Company. Such part will be an amount equal in dollar terms to the amount owing by the Customer to the Company at the time of the receipt of such proceeds. The Customer will pay the Company such funds held in trust upon the demand of the Company.
- 6.4 Separately, Customer hereby charges all its right, title & interest to & in the proceeds of sale of the Collateral (as defined in the PPSA) as original collateral, or any of it, in favour of the Company.
- 7. PPSA**
- 7.1 Defined terms in this clause have the same meaning as given to them in the PPSA.
- 7.2 The Company & the Customer acknowledge that these Terms constitute a Security Agreement & entitle the Company to claim:
- (a) a Purchase Money Security Interest ("PMSI") in favour of the Company over the Collateral supplied or to be supplied to the Customer as Grantor pursuant to these Terms; & (b) a security interest over the proceeds of sale of the Collateral referred to in (a) as original collateral.
- 7.3 The goods supplied or to be supplied under these Terms fall within the PPSA classification of "Other Goods" acquired by the Customer pursuant to these Terms.
- 7.4 The Proceeds of sale of the Collateral referred to in clause 8.2(a) falls within the PPSA classification of "Account".
- 7.5 The Company & the Customer acknowledge that the Company, as Secured Party, is entitled to register its Security Interest in the Collateral supplied or to be supplied to the Customer pursuant to these Terms & in the relevant Proceeds.
- 7.6 To the extent permissible at law, the Customer:
- 7.6.1 waives its right to receive notification of or a copy of any Verification Statement confirming registration of a Financing Statement or a Financing Change Statement relating to a Security Interest granted by the Customer to the Company;
- 7.6.2 agrees to indemnify the Company on demand for all costs & expenses, including legal costs & expenses on a solicitor/client basis, associated with the:
- 7.6.2.1 registration or amendment or discharge of any Financing Statement registered by or on behalf of the Company; &
- 7.6.2.2 enforcement or attempted enforcement of any Security Interest granted to the Company by the Customer;
- 7.6.3 agrees that nothing in sections 130 & 143 of the PPSA will apply to these Terms or the Security under these Terms;
- 7.6.4 agrees to waive its right to do any of the following under the PPSA:
- 7.6.4.1 receive notice of removal of an Accession under section 95;
- 7.6.4.2 receive notice of an intention to seize Collateral under section 123;
- 7.6.4.3 object to the purchase of the Collateral by the Secured Party under section 129;
- 7.6.4.4 receive notice of disposal of Collateral under section 130;
- 7.6.4.5 receive a Statement of Account if there is no disposal under section 132(4);
- 7.6.4.6 receive a Statement of Account under section 132(3)(d) following a disposal showing the amounts paid to other Secured Parties & whether Security Interests held by other Secured Parties have been discharged.
- 7.6.4.7 receive notice of retention of Collateral under section 135;
- 7.6.4.8 redeem the Collateral under section 142; &
- 7.6.4.9 reinstate the Security Agreement under section 143.
- 7.6.5 All payments received from the Customer must be applied in accordance with section 14(6)(c) of the PPSA.
- 8. On-Sale**
- The Customer agrees that upon the on-sale of any Goods to third parties, it will:
- 8.1.1 inform any third party involved of these Terms;
- 8.1.2 inform any third party of the Company's product warranties if any; &
- 8.1.3 not make any misrepresentations to third parties about the Goods.
- 9. Trustee Capacity**
- If the Customer is the trustee of a trust (whether disclosed to the Company or not), the Customer warrants to Company that:
- 9.1 the Customer enters into this Agreement in both its capacity as trustee & in its personal capacity;
- 9.2 the Customer has the right to be indemnified out of trust assets;
- 9.3 the Customer has the power under the trust deed to enter into this Agreement; &
- 9.4 the Customer will not retire as trustee of the trust or appoint any new or additional trustee without first advising the Company.
- 10. Indemnity**
- To the full extent permitted by law, the Customer will indemnify the Company & keep the Company indemnified from & against any liability & any loss or damage the Company may sustain, as a result of any breach, act or omission, arising directly or indirectly from or in connection with any breach of any of these Terms by the Customer or its representatives
- 11. Force Majeure**
- 11.1 The Company will not be liable for the consequences of any failure or delay in performing any of its obligations under this Agreement to the extent that such failure or delay is due directly or indirectly to any Force Majeure Event.
- 11.2 If a Force Majeure Event arises, the Company will notify the Customer in writing of the Force Majeure Event & the likely impact it will have on the Company's performance under this Agreement. If the Force Majeure Event affects the capacity of the Company to complete its material obligations under this Agreement in a timely manner, the Company may by notice to the Customer terminate this Agreement without any liability whatsoever on its part arising from that termination.
- 12. General**
- 12.1 These Terms are to be construed in accordance with the laws from time to time in the State of Victoria & the Commonwealth of Australia. The parties submit to the non-exclusive jurisdiction of the Courts of Victoria, Australia & any courts which may hear appeals from those courts in respect to any proceedings in connection with these Terms.
- 12.2 These Terms contain all of the terms & conditions of the contract between the parties & may only be varied by agreement in writing between the parties.
- 12.3 Any conditions found to be void, unenforceable or illegal may, to that extent be severed from the Agreement.
- 12.4 No waiver of any of these Terms or failure to exercise a right or remedy by the Company will be considered to imply or constitute a further waiver by the Company of the same or any other term, condition, right or remedy.

## PURCHASE ORDERS

Purchase orders can be placed with MATElec Australia by way of a number of methods:

Telephone Orders: (Free call: 1800 281 282)  
Facsimile: (Free fax: 1300 281 282)  
Email: sales@matelecaustralia.com.au  
By Hand: Handed to Company representative

On receipt of (receiving) a purchase order you will be contacted by a Customer Service Representative, confirming receipt of your purchase order and advising any queries pertaining to the order. Queries may include business opportunities, applicable current promotions, delivery instructions, pricing discrepancies, back orders and therefore subsequent ETA's or product alternatives etc.

On dispatch of your purchase order, Dispatch Confirmation Advice may be forwarded by email detailing delivery details including carrier and consignment note number.

MATElec Australia takes great pride in an exceptionally high order fill rate. However, in the event stock is unable to be supplied as expected, product alternatives are explored and offered where applicable. Product turn-around times will be confirmed and advised. MATElec Australia account management includes methodical customer back order management, including notification of the latest ETA's, order confirmation, order consolidation and or amendments where applicable.

## TECHNICAL SUPPORT

The MATElec Australia Technical Support team provides unparalleled support to clients, installers and users of it's products. This support ranges from product selection, through to application and usage optimization.

Since the design and manufacture of many of the products has been implemented in-house, product knowledge is a significant resource which MATElec Australia makes available to it's customer base.

## SALES AND SERVICE

MATElec Australia proudly services the Australian Electrical Wholesale market through manufacturing, supplying and distributing competitively priced quality products in an effective, efficient and professional manner.

MATElec Australia's products and services are exclusively available through recognised Electrical Wholesalers only, therefore supporting the wholesaler industry and maintaining standards and integrity within the industry. The MATElec Australian network enables us to provide our customers with a superior service, including 'second to none' after sales service and ongoing product support.

## QUOTATIONS

Obligation free quotations are encouraged and welcomed here at MATElec Australia. All quotations tendered or sourced are processed and submitted promptly, in most circumstances the same day. Quotations are

processed by Sales at Head Office; a file will be opened on receipt of the quotation containing all information pertaining to the quotation.

Quotations include the following information:

MATElec Australia quotation number, quotation reference (if provided), product details, standard product packaging, quantity, price (ex GST), validity and delivery costs pertaining to quotation if applicable.

## DELIVERY AND FREIGHT

MATElec Australia provides a standard 24 hour delivery time for Metropolitan and surrounding areas across Australia, and 48 hours delivery for Queensland and Regional areas for orders placed before 4pm. MATElec Australia enjoys the flexibility of a number of highly reputed carriers, allowing majority of all wholesalers to enjoy such delivery times regardless of their location. MATElec Australia is able to provide alternative delivery inside these periods for situations where needed.

The warehouse, from which the order is to be dispatched, is dependent on Customer location and stock availability. Every product dispatched from MATElec Australia warehouses is carefully picked and packed. Great pride is taken ensuring each and every product arrives at the wholesaler in perfect saleable condition and in a timely manner.

Every order dispatched leaves MATElec Australia with weight details, number of boxes, carrier and consignment note number. In the event there is a query relating to delivery or freight, all are handled from Head Office in Shepparton, VIC.

Orders exceeding \$250.00 +GST are F.I.S (free delivery into store). Orders under this amount, will attract freight charges. Freight charges are clearly itemised on the invoice where freight is charged. Freight charges can vary from state to state. The option to nominate your preferred carrier is also available.

## ADMIN

MATElec Australia's Admin Department operates to an exceptionally high standard with all processes streamlined to ensure total customer satisfaction.

Based at Shepparton, our competent Admin team members are always available to promptly attend to any accounting queries. From the 48 hour turnaround time on credit applications, to the mail out by the 1st working day of the new month of customer statements, MATElec Australia pro-actively ensures that customer expectations are exceeded.

Immediate attention is given to all administration enquiries including:

- Account Balances
- Payment Receipts
- Goods Return Requests (GRA's)
- Copy documents
- Customer historical data.

MATElec Australia's Admin Department has the ability to tailor an accounting/reporting process to best meet the many varied needs of its vast customer base. Services can include:

- Statement consolidation for Group Accounts
- Settlement Discounts.



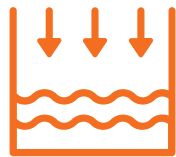
**SMOKE  
DETECTORS**



**CABLE  
ACCESSORIES**



**DAY/NIGHT  
SWITCHES**



**LIQUID LEVEL  
CONTROL**



**MOTION  
SENSING**



**OUTDOOR  
LIGHTING**



**PUMP & MOTOR  
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Free call: **1800 281 282**

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*Happy  
People  
are our  
Future*



**AUSTRALIAN  
OWNED &  
OPERATED**

