

# EMS

hazardous area products

## Hazardous Area Electrical Installation Products

EXPERTISE FOR THE MOST DEMANDING ENVIRONMENTS



REXEL

ELECTRICAL SUPPLIES

A Rexel Group  
Company

# When it comes to **EMS really under**

***For over 20 years EMS has built up an unrivalled reputation for understanding the needs of the market, both on-shore and off-shore, Hazardous Area Equipment is about much more than just supplying products.***

It is also essential that environmental and legal requirements are constantly monitored and liaised with both the manufacturers and most importantly "YOU" the customer.

The new standard EN 61241... supersedes the previous valid dust standard EN 50 281 from July 1, 2007.

This new standard EN 61241... must be observed because a high risk potential in dust explosion areas is involved in which peoples' lives are in danger.

The standard takes into account that the demands on the electrical equipment in areas with a risk of dust explosion are increased in comparison with the industrial standard and the previous standard EN 50281.

This obliges the owner to use products which correspond to and conform with the EN 61241 standard exclusively for new installations.

Also owners are now responsible for the protection of the workforce and safety of the plant according to the new European ATEX directive 1999/92/EC (ATEX 137).

There can be no compromise in the quality of both the products and service provided. With the back-up of specialist teams, EMS are able to offer you the highest quality of customer service.

As part of the Rexel group, the largest distributor of electrical products in the world, we have unrivalled access to leading manufacturers, not only in the United Kingdom, but also throughout the world. We are able to offer you the most comprehensive range of product available.

All products shown are an indication only of the vast range of various manufacturers equipment available within the UK and EU countries, and other types and variations are available upon request both via EMS locations and the national network of the Senate Electrical branches.



# Hazardous Areas stands the needs of the market

EMS can offer the addition of:

- Full lighting scheme surveys for hazardous area and safe area applications.
- Control Station assembly in-house, Hazardous area and safe area.
- Terminal box enclosures: in-house assembly of EExe and EExia versions, and safe area.

Project packages competitively offered tailored to customers' requirements.

**All products in this catalogue are ATEX approved.**

contents

## LIGHTING

PAGE  
6-35



## CONTROL PRODUCTS & SWITCHGEAR

PAGE  
36-47



## INDUSTRIAL CONNECTORS

PAGE  
48-51

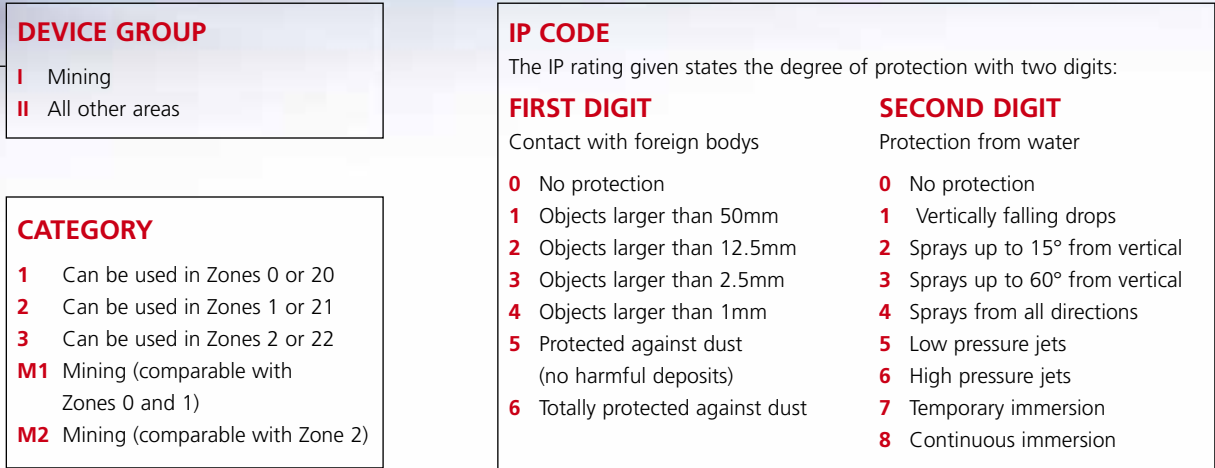


## CABLE MANAGEMENT

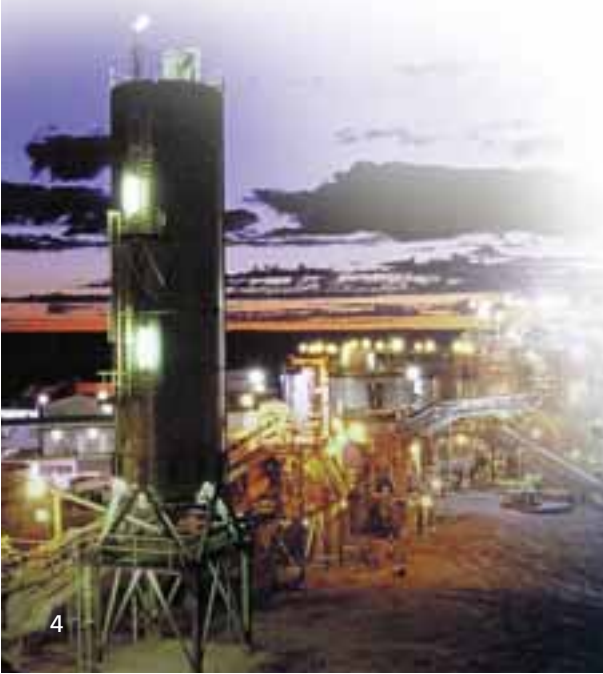
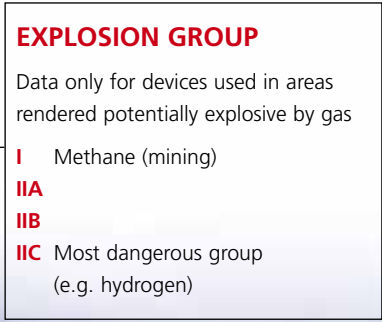
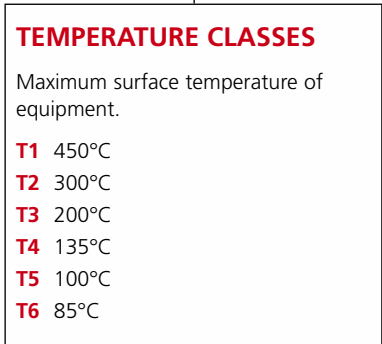
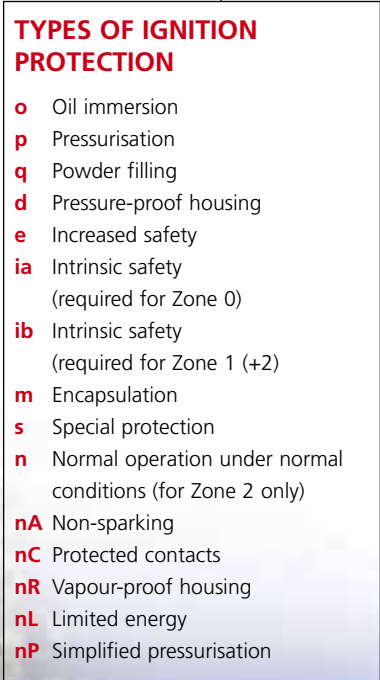
PAGE  
52-63



# Ex Designations Explained



**II 1 GD EEx ia IIC T4 IP64**



# Definitions

## EXPLOSION PROTECTION:

The important principles for integrated safety explosion protection are as follows:

- 1 Measures are taken to avoid hazardous atmospheres whenever possible
- 2 Measures are taken which prevent ignition of hazardous atmospheres
- 3 Measures are taken which limit the explosive effect to a safe degree

## THIS DIFFERS FROM:

Primary explosive protection:

These are precautions taken to prevent or restrict the formation of hazardous explosive atmospheres

Secondary explosive protection:

This covers the second group of measures, which are intended to prevent the ignition of an atmosphere that is capable of exploding

Definition	Zone	A device from the following must be used	Atmosphere
Area in which a potentially explosive atmosphere as a mixture of air and flammable gases, vapours or mists is present either frequently or over a prolonged period	0	1	G
Area in which under normal operation a potentially explosive atmosphere as a mixture of air and flammable gases, vapours or mists can occasionally form	1	2 1G also possible	G
Area in which under normal operation a potentially explosive atmosphere as a mixture of air and flammable gases, vapours or mists is not normally present but may occur for just a short period	2	2 1G, 2G also possible	G
Area in which a potentially explosive atmosphere in the form of a cloud of flammable air-borne dust is present either constantly, over prolonged periods or frequently	20	1	D
Area in which under normal operation a potentially explosive atmosphere in the form of a cloud of flammable air-borne dust can occasionally form	21	2 1D also possible	D
Area in which under normal operation a potentially explosive atmosphere in the form of a cloud of flammable air-borne dust is not normally present although may occur for just a short period	22	3 1D, 2D also possible	D

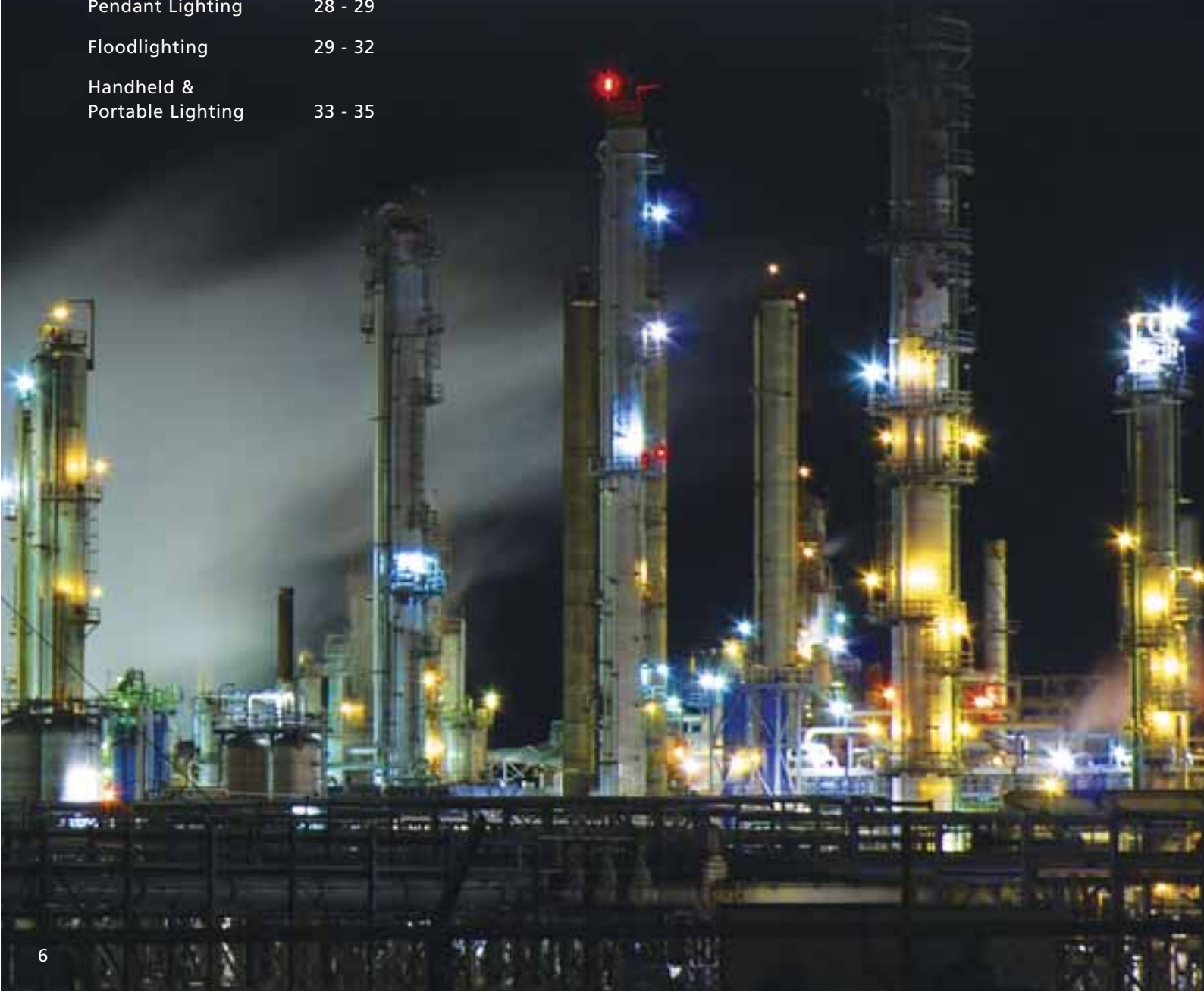
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hazardous area products



# Lighting

Fluorescent Lighting	7 - 21
Bulkhead Lighting	22 - 25
Wellglass Lighting	25 - 27
Pendant Lighting	28 - 29
Floodlighting	29 - 32
Handheld & Portable Lighting	33 - 35



## Fluorescent Lighting

### VL125 TRIDENT FLUORESCENT LUMINAIRE

Ex II 2 GD EEx em IIC T4, Zone 1 (Gases), Zone 21 (Dusts)



- End of lamp life (EOL) detection
- Unique conversion technology allows VL125 to be made into an emergency version VL126
- Easy installation. Lightweight yet robust construction
- Cassette re-lamping technology
- Can be safely relamped without the need for mains isolation
- Can be mounted in any orientation
- Efficient high frequency electronic control gear keeps running costs to a minimum
- 220-254V 47/63Hz
- Low voltage option available

Part No.	Description
TRIE/218/BI	2 x 18W Bi-pin
TRIE/236/BI	2 x 36W Bi-pin
TRIE/258/BI	2 x 58W Bi-pin



### VL126 TRIDENT EMERGENCY FLUORESCENT LUMINAIRE

Ex II 2 GD EEx em IIC T4, Zone 1 (Gases), Zone 21 (Dusts)



Part No.	Description
TRIE/218/BI/EM	2 x 18W Bi-pin
TRIE/236/BI/EM	2 x 36W Bi-pin
TRIE/258/BI/EM	2 x 58W Bi-pin



- Easy installation. Lightweight yet robust construction
- End of lamp life (EOL) protection
- Cassette re-lamping technology
- Efficient high frequency electronic control gear keeps running costs to a minimum
- Dedicated 11W lamp for emergency operation
- 220-254V 47/63Hz
- Low voltage option available
- Self test function available on request
- Unique lamp in lid design feature enables direct interchange between standard & emergency functions

### VL104C RECESSED FLUORESCENT LUMINAIRE

Ex II 2 GD EEx eqm II T4, IP65, Zone 1 (Gases), Zone 21 (Dusts)



- 3 x 20mm cable entries
- Voltage 220V-254V, AC/DC
- Terminals up to 6mm
- Options for modular and non-modular ceilings
- Automatic lamp de-energisation on opening
- End of life protection to IEC 60079-7

Part No.	Description
104E/218/BI	2 x 18W Bi-pin
104E/418/BI	4 x 18W Bi-pin
104E/236/BI	2 x 36W Bi-pin
104E/436/BI	4 x 36W Bi-pin



## Fluorescent Lighting

### VL104C/EM RECESSED EMERGENCY FLUORESCENT LUMINAIRE

Ex II 2 GD EEx eqm II T4, IP65, Zone 1 (Gases), Zone 21 (Dusts)



- Designed for modular and non modular ceilings
- 3 x 20mm cable entries
- Terminals to 6mm<sup>2</sup>
- Voltage 220-254V AC/DC
- End of life protection
- Emergency Version: 90 minute as standard, 3HR option
- Battery management, monitoring and automatic self test

Note: two lamp versions are available but will be supplied in a four lamp (600mm) body

Part No.	Description
104E/218/BI/EM	2 x 18W Bi-Pin
104E/418/BI/EM	4 x 18W Bi-Pin
104E/236/BI/EM	2 x 36W Bi-Pin
104E/436/BI/EM	4 x 36W Bi-Pin

### VL77 = STANDARD / VL78 = EMERGENCY RECESSED FLUORESCENT LUMINAIRE

Ex II 2 GD EExeqm II T4, IP65, Zone 1 (Gases), Zone 21 (Dusts)



Part No.	Description
V77E/218/BI	2 x 18W Bi-pin
V77E/236/BI	2 x 36W Bi-pin
V78E/218/BI/EM	2 x 18W Bi-pin
V78E/236/BI/EM	2 x 36W Bi-pin

- Designed for various ceiling types
- Terminals to 6mm<sup>2</sup>
- Voltage 220-254V AC/DC
- End of life protection
- Emergency Version: 90 minute as standard
- Battery management, monitoring and automatic self test



### VL19 EXCALIBUR FLUORESCENT LUMINAIRE

Ex II 2 GD EEx em II T4, IP66/IP67, Zone 1 (Gases), Zone 21 (Dusts)



- Polycarbonate housing, stainless steel reflector
- Ambient temperature -35°C to +55°C
- 2 x 20mm cable entries
- Voltage 220V-254VAC/DC 47/63 Hz
- Electronic ballast, H.F.
- Terminals up to 6mm
- End of lamp life (EOL) protection
- Low voltage, monopin and pole mounting versions available on request
- Spares readily available



Part No.	Description
EXCE/218/BI	2 x 18W Bi-pin
EXCE/236/BI	2 x 36W Bi-pin

## Fluorescent Lighting

### VL24 EXCALIBUR FLUORESCENT LUMINAIRE

Ex II 2 GD EEx emd IIC T4, IP66/IP67, Zone 1 (Gases), Zone 21 (Dusts)



Part No.	Description
EXCE/218/BI/EM	2 x 18W Bi-pin Fluorescent
EXCE/236/BI/EM	2 x 36W Bi-pin Fluorescent



- Polycarbonate housing, stainless steel reflector
- Ambient temperature -10°C to +55°C
- 2 x 20mm cable entries
- Voltage 220V-254VAC/DC 47/63 Hz
- Electronic ballast, H.F.
- Terminals up to 6mm
- Emergency Duration – 3 hours 1 lamp operation
- End of lamp life (EOL) protection
- Low voltage, monopin and pole mounting versions available on request
- Spares readily available

### VL114S PATHFINDER FLUORESCENT LUMINAIRE

Ex II 2 GD EEx em II , IP66/IP67/IP68, Zone 1 (Gases), Zone 21 (Dusts)



- Lightweight yet robust construction
- Easy installation
- Various optional coloured lens available, red, blue, green, yellow
- Can be mounted in any orientation
- Low profile
- 220-277V AC/DC 47/63Hz
- Ideal for exit signs (adhesive legends available)
- Supplied complete with lamps

Part No.	Description
PATE/111/CF	1 x 11W Compact Fluorescent
PATE/218/CF	2 x 18W Compact Fluorescent



### VL114E PATHFINDER EMERGENCY FLUORESCENT LUMINAIRE

Ex II 2 GD EEx em II , IP66/IP67/IP68, Zone 1 (Gases), Zone 21 (Dusts)



Part No.	Description
PATE/111/CF/EM	1 x 11W Non-maintained



- Lightweight yet robust construction
- Easy installation
- Emergency lamp has integral battery back-up as standard
- Can be mounted in any orientation
- Non-maintained as standard, maintained option (/MEM)
- Low profile
- Voltage rating 220-254V AC/DC 47/63Hz
- Up to 3 hour duration in emergency mode
- Ideal for exit signs (adhesive legends available)
- Supplied complete with lamps
- Various optional coloured lens available, red, blue, green, yellow

## Fluorescent Lighting

### VL51A VISCOUNT FLUORESCENT LUMINAIRE

Ex II 2 GD EEx d IIC for 18W, Ex II 2 GD EEx d IIB for 36W and 58W, IP66/IP67/IP68, Zone 1 (Gases), Zone 21 (Dusts)



- Material – LM6 aluminium alloy (die cast), borosilicate glass tube
- Ambient Temp: -20°C to +55°C (18W)
- 2 x 20mm cable entries
- 220/254V AC/DC 47/63Hz (110-130V AC/DC 47/63Hz available on request)
- Electronic ballast
- Terminals accommodate conductors up to 6mm
- Stainless steel reflector
- Also available as 8W versions



Part No.	Description
VISD/118/BI	600mm 1 x 18W Bi-pin
VISD/218/BI	600mm 2 x 18W Bi-pin
VISD/136/BI	1200mm 1 x 36W Bi-pin
VISD/236/BI	1200mm 2 x 36W Bi-pin
VISD/158/BI	1500mm 1 x 58W Bi-pin
VISD/258/BI	1500mm 2 x 58W Bi-pin

### VL52A VISCOUNT EMERGENCY FLUORESCENT LUMINAIRE

Ex II 2 GD EEx de IIc for 18W, II 2 GD EEx de IIb for 36W and 58W, IP66/IP67, Zone 1 (Gases), Zone 21 (Dusts)



- Material – LM6 aluminium alloy (die cast), borosilicate glass tube
- 2 x 20mm cable entries
- Ambient Temp: -20°C to +55°C (18W)
- 220/254V AC 47/63Hz (110/130V AC/DC 47/63Hz available on request)
- Electronic ballast
- Terminals accommodate conductors up to 6mm
- Emergency duration – 3 hours one lamp operation
- Stainless steel reflector



Part No.	Description
VISD/218/BI/EM	600mm 2 x 18W Bi-pin
VISD/236/BI/EM	1200mm 2 x 36W Bi-pin
VISD/258/BI/EM	1500mm 2 x 58W Bi-pin

### VL53 MARQUIS II FLUORESCENT LUMINAIRE

Ex II 3 GD EEx nA II T4, IP65, Zone 2 (Gases), Zone 22 (Dusts)



Part No.	Description
MA2N/218/BI	2x18W Bi-pin
MA2N/136/BI	1x36W Bi-pin
MA2N/236/BI	2x36W Bi-pin
MA2N/158/BI	1x58W Bi-pin
MA2N/258/BI	2x58W Bi-pin



- High frequency electronic ballast with end of life (EOL) protection
- 220-254V 50/60Hz AC/DC
- Stainless steel diffuser clips
- Lamp options 18W, 36W and 58W single and twin versions
- Robust polycarbonate diffuser
- Terminals: Conductors up to 4mm<sup>2</sup>
- Through wired as standard
- Various fixings + pole clamps available

**VL54 MARQUIS II EMERGENCY FLUORESCENT LUMINAIRE**

Ex II 3 GD EEx nA II T4, IP65, Zone 2 (Gases), Zone 22 (Dusts)



- High frequency electronic ballast with end of life (EOL) protection
- 220-254V 50/60Hz AC/DC
- Lamp options 18W, 36W and 58W twin
- Robust polycarbonate diffuser with stainless steel clips as standard
- 3 hours emergency duration, one lamp only
- Switchable mains supply for local operation
- Terminals: Conductors up to 4mm<sup>2</sup>
- Through wired as standard
- 2 x M20 cable entries, each end
- Various fixings + pole clamp available

Part No.	Description
MA2N/218/BI/EM	2 x 18W Bi-pin
MA2N/236/BI/EM	2 x 36W Bi-pin
MA2N/258/BI/EM	2 x 58W Bi-pin



**EXLUX 6000 RANGE FLUORESCENT LUMINAIRE**

Ex II 2 GD EEx ed IIC T4, IP66/IP67, Zone 1, (Gases), Zone 21 (Dusts)



- GRP housing, polyester bowl
- 3 x 20mm entries, through wired
- 220/254V 50/60Hz
- Electronic ballast
- 18W, 36W available in pole mounting versions
- Various accessories available



Part No.	Description
6000/521-8591	1x 18W Bi-pin
6000/522-9591	2 x 18W Bi-pin
6000/541-8591	1 x 36W Bi-pin
6000/542-9591	2 x 36W Bi-pin
6000/561-8591	1 x 58W Bi-pin
6000/562-9591	2 x 58W Bi-pin

**EXLUX 6008 RANGE EMERGENCY FLUORESCENT LUMINAIRE**

Ex II 2 G EEx edm IIC T4, IP66/IP67, Zone 1, (Gases)



- GRP housing, polyester bowl
- 3 x M20mm entries
- 220/254V 50/60Hz
- Electronic ballast
- Emergency duration – 3 hours 1 lamp operation
- 18W, 36W available in pole mounting versions
- Various accessories available

Part No.	Description
6008/522-9097	2 x 18W Bi-pin
6008/542-9697	2 x 36W Bi-pin



Lamps not supplied unless otherwise stated. Call for details.

## Fluorescent Lighting

### C-LUX 6100/6108 RANGE COMPACT FLUORESCENT LUMINAIRE

Ex II 2 GD EEx eds IIC T4, IP66/IP67, Type 6100 Zone 1 (Gases), Zone 21 (Dusts);  
Ex II 2 GD EEx edm IIC T4, Type 6108 Zone 1 (Gases), Zone 21 (Dusts)



Part No.	Description
6100/1081-8091	1 x 8W Standard
6100/1082-8091	2 x 8W Standard
6100/1083-8091	3 x 8W Standard
6108/1081-8097	1 x 8W Emergency Maintained
8198005400	M8/SW13 Socket spanner

- GRP housing, polyester bowl
- 3 x 20mm entries
- 198/254V 50/60Hz AC/DC (6100 only); 220/254V 50/60Hz AC (6108 only)
- Electronic ballast
- Emergency duration – 1-5 hours 1 lamp operation (6108)
- Various pictogram legends available on request

### C-LUX 6500/6508 RANGE COMPACT FLUORESCENT LUMINAIRE

Ex II 3 G EEx nA II T4, IP66/IP67, Zone 2 (Gases), Zone 22 (Dusts)



Part No.	Description
6500/1081-8090	1 x 8W Standard
6500/1082-8090	2 x 8W Standard
6500/1083-8090	3 x 8W Standard
6508/1081-8097	1 x 8W Emergency
8198005400	M8/SW13 Socket spanner

- Polyester resin housing, polycarbonate cover
- Central locking
- Suitable for wall or ceiling mounting
- 3 x 20mm entries
- 198/254V 50/60Hz AC/DC (6500 only); 220/254V 50/60Hz AC (6508 only)
- Continuous battery back-up operation – 1.5 hour (6508 only)
- Various pictogram legends available on request

### ECOLUX 6600 SERIES FLUORESCENT LUMINAIRE

Ex II 3 G EEx nA II T4, IP66/IP67, Zone 2 (Gases), Zone 21 + 22 (Dusts)



- Enclosure in glass fibre reinforced polyester resin and cover in impact resistant polycarbonate
- 198/264V 50/60Hz
- Electronic ballast (1 channel)
- Quick fastening side clips



Part No.	Description
6600/521-8090	1 x 18W Bi-pin
6600/522-8090	2 x 18W Bi-pin
6600/541-8090	1 x 36W Bi-pin
6600/542-8090	2 x 36W Bi-pin
6600/561-8090	1 x 58W Bi-pin
6600/562-8090	2 x 58W Bi-pin

**ECOLUX 6608 SERIES EMERGENCY FLUORESCENT LUMINAIRE**

Ex II 3 GD EEx nA II T4 , IP66/IP67, Zone 2 (Gases), Zone 22 (Dusts)



Part No.	Description
6608/522-9097	2 x 18W Bi-pin Emergency
6608/542-9097	2 x 36W Bi-pin Emergency
6600803750	Ceiling Mounting Brackets (1 Pair)
6600803900	M8 Ring Bolts (1 Pair)
6600801260	1.5" - 50mm dia. Stainless steel pipe clamps (1 Pair)
6600802260	2" - 60mm dia. Stainless steel pipe clamps (1 Pair)

- Glass fibre reinforced polyester resin housing
- Shock resistant polycarbonate diffuser
- Quick fastening side clips
- Electronic ballast
- Emergency duration – 1.5 or 3 hours

Other spares available on request



**ELLK RANGE BI-PIN LUMINAIRE**

Zone 1, 2 (Gases), Zone 21 and 22 (Dusts), Ex II 2 GD, EEx ed IIC T4



- Degree of Protection – IP66
- GRP housing, polycarbonate bowl
- 2 x 20mm entries each end
- 110/254V +/-10%, 47/63 Hz
- Electronic ballast
- Terminals through wired, conductors up to 6mm

Part No.	Description
eLLK92018/18	2 x 18W Bi-Pin
eLLK92036/36	2 x 36W Bi-Pin
eLLK92058/58	2 x 58W Bi-Pin

Also available in pole mounting



**ELLK RANGE BI-PIN EMERGENCY LUMINAIRE**

Ex II 2 GD EEx edm ib IIC T4, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts)



Part No.	Description
eLLK92018/18NiB	2 x 18W Bi-Pin
eLLK92036/36NiB	2 x 36W Bi-Pin

Also available in pole mounting

- Degree of Protection – IP66
- GRP housing, polycarbonate bowl
- 2 x 20mm entries each end
- 220/250V +/-10%, 47/63 Hz
- Electronic ballast
- Terminals through wired, conductors up to 6mm
- Emergency Duration - 3 hours one lamp operation
- LED battery status indication



## Fluorescent Lighting

### BI-PIN FLUORESCENT LUMINAIRES

II 2 GD EEx ed IIC T4 or T5, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts)



- Instant start. Power factor  $\geq 0.95$  2 channel ballast
- Pre-impregnated fibre glass reinforced polyester body
- Polycarbonate diffuser hinged to body
- Polycarbonate multi-parabolic hinged reflector
- Degree of Protection - IP66/67
- High temperature internal wiring
- Power supply to the unit cut off by positive safety switch which operates when diffuser is opened, for replacing tubes with mains power switched on
- Pole mounting version available for mounting on pole or  $\varnothing 42\text{mm}$  tubular wall-mounting support
- Suitable for use with armoured cables
- Supplied with multi-tapped ballasts

Part No.	Description
0965 35	1 x 18W, 220/240V
0965 38	2 x 18W, 220/240V
0965 43	1 x 36W, 220/240V
0965 45	2 x 36W, 220/240V
0963 42	1 x 58W, 220/240V
0963 43	2 x 58W, 220/240V



### EMERGENCY BI-PIN FLUORESCENT LUMINAIRES

II 2 GD EEx edm IIC T4 or T5, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts)



Part No.	Description
0963 40	2 x 18W, 220/240V
0963 41	2 x 36W, 220/240V
0963 44	2 x 58W, 220/240V

- Common power supply circuit to provide both normal lighting and emergency lighting
- Instant start. Power factor  $\geq 0.95$
- Pre-impregnated fibre glass reinforced polyester body
- Polycarbonate diffuser hinged to body
- Polycarbonate multi-parabolic hinged reflector
- Degree of Protection - IP66/67
- High temperature internal wiring
- Suitable for use with armoured cables
- Supplied with multi-tapped ballasts



**HEAVY DUTY BI-PIN LUMINAIRES**



II 3 GD EEx nR II T6, Zone 2 (Gases), Zone 22 (Dusts)

Part No.	Description
0963 46	2 x 18W, 220/240V
0963 47	2 x 36W, 220/240V
0963 49	2 x 58W, 220/240V

- Power supply via high frequency ballast depending on version
- Instant start. Power factor  $\geq 0.95$
- Pre-impregnated fibre glass reinforced polyester body
- Polycarbonate diffuser hinged to body
- Polycarbonate multi-parabolic hinged reflector
- Degree of Protection - IP66/67
- High temperature internal wiring
- Anti-vibration lampholders with spring system
- Suitable for use with armoured cables
- Supplied with multi-tapped ballasts



**EMERGENCY HEAVY DUTY BI-PIN LUMINAIRES**



II 3 GD EEx nR II T6, Zone 2 (Gases), Zone 22 (Dusts)

- Common power supply circuit to provide both normal lighting and emergency lighting
- Instant start. Power factor  $\geq 0.95$
- Pre-impregnated fibre glass reinforced polyester body
- Polycarbonate diffuser hinged to body
- Polycarbonate multi-parabolic hinged reflector
- Degree of Protection - IP66/67
- High temperature internal wiring
- Suitable for use with armoured cables
- Supplied with multi-tapped ballasts

Part No.	Description
0963 56	2 x 18W, 220/240V
0963 57	2 x 36W, 220/240V
0963 58	2 x 58W, 220/240V



## Fluorescent Lighting

### METAL/GLASS EMERGENCY LIGHTING

EExd IIC T6, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts), II 2 GD



- 3 hour maintained, non-maintained and sustained units, as options
- Sealed toughened glass tube
- Zamak end cap and cover, anticorrosion treated and painted grey
- Fixed using 2 brackets (supplied)
- Degree of Protection - IP68

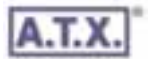
Part No.	Description
0949 56	1 x 8W Fluorescent Non-maintained 230/240V
0949 61	1 x 8W Fluorescent Maintained 230/240V
0949 62	2 x 8W Fluorescent Sustained 230/240V

Legend options and other voltages available on request



### GLASS/METAL FLUORESCENT LUMINAIRES

EEx d IIB or IIC T6 or T5, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts), II 2 GD



- Suitable for armoured or non armoured cable
- Single and twin tubes
- Borosilicate glass sealed tube
- Zamak end caps and cover anticorrosion treated and painted grey
- High temperature internal wiring
- Connection via 2 x 3 x 2.5 mm<sup>2</sup>
- 2 x M20 threaded entries for 240V version
- Degree of Protection - IP68

Part No.	Description
0948 26	1 x 18W, 240V
0948 27	1 x 36W, 240V
0948 28	1 x 58W, 240V
0948 29	2 x 18W, 240V
0948 30	2 x 36W, 240V
0948 31	2 x 58W, 240V



Lamps not supplied unless otherwise stated. Call for details.

**GLASS/METAL EMERGENCY FLUORESCENT LUMINAIRES**

EEx d IIB or IIC T6 or T5, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts), II 2 GD



- Suitable for armoured or non armoured cable
- Borosilicate glass sealed tube
- Zamak end caps and cover anticorrosion treated and painted grey
- Power supply via electronic ballast 220/240V~ (±10%)
- Instant start – power factor  $\geq 0.95$
- Battery voltage: 18W:6V4Ah – 36W/58W: 8.4V4Ah
- Common power supply circuit to provide both normal lighting and emergency lighting
- Signalling LED: On when the installation is operating normally; Off if there is a mains power supply failure or a battery fault
- High temperature internal wiring
- Connection via 2 x 4 x 2.5 mm<sup>2</sup> terminals
- 2 x M20 threaded entries
- Degree of Protection – IP68

Part No.	Description
0948 15	2 x 18W, 220V/240V
0948 16	2 x 36W, 220V/240V
0948 17	2 x 58W, 220V/240V



**RE SERIES RECESSED FLUORESCENT LUMINAIRES**

Zone 1, 2 (Gases), Zone 21 and 22 (Dusts), II 2 GD



- Degree of Protection – IP66
- End of lamp life (EOL) protection
- Supplied with multi-tapped ballasts 110V to 254V  $\pm 10\%$  50/60Hz AC/DC
- Designed to suit various ceiling types
- Available in loop in/out or through wired standard + emergency
- Available sizes: 2 x 18W, 2 x 36W, 2 x 58W, 4 x 18W, 4 x 36W, 4 x 58W in standard + emergency versions



## Fluorescent Lighting

### LIGHT DUTY FLUORESCENT LUMINAIRES

EEx nR II T6 or T5, Zone 2 (Gases), Zone 22 (Dusts) II 3 GD



Part No.	Description
300244	1 x 18W, 220V/240V
300245	2 x 18W, 220V/240V
300246	1 x 36W, 220V/240V
300247	2 x 36W, 220V/240V
300248	1 x 58W, 220V/240V
300249	2 x 58W, 220V/240V



- Suitable for armoured or non armoured cable
- Power supply via high frequency ballast
- Instant start – power factor  $\geq 0.95$
- Pre-impregnated fibre glass reinforced polyester body
- Polycarbonate diffuser
- White painted sheet steel reflector
- Closing system using stainless steel clips
- Degree of Protection – IP65/IP67

### LIGHT DUTY EMERGENCY FLUORESCENT LUMINAIRES

EEx nR II T6, Zone 2 (Gases), Zone 22 (Dusts)



- Suitable for armoured or non armoured cable
- Common power supply circuit to provide both normal lighting and emergency lighting
- Power supply via high frequency ballast 220/240V~ ( $\pm 10\%$ )
- Instant start – power factor  $\geq 0.95$
- Battery voltage: 18W:6V4Ah – 36W/58W: 8.4V4Ah
- Pre-impregnated fibre glass reinforced polyester body
- Polycarbonate diffuser
- Painted sheet steel reflector
- Battery power supply cut off by a switch which operates when diffuser is opened
- Green LED on when the installation is operating normally and off if there is a mains power failure or a battery fault
- Closing system using stainless steel clips
- Degree of Protection – IP65/IP67

Part No.	Description
300235	2 x 18, 220V/240V
300237	2 x 36, 220V/240V
300239	2 x 58, 220V/240V



### 7 SERIES STANDARD & EMERGENCY COMPACT FLUORESCENT LUMINAIRES

EExd IIB + IIC T5, T6, Zone 1 + 2 (Gases), II 2 G



- Lightweight rigid construction
- Anodised corrosion resistant aluminium body
- Polycarbonate cover
- Through wiring option
- Control gear – 240V 50Hz as standard, H.F. electronic ballast available, other voltages available
- Available in 11W, 18W, 26W compact fluorescent for standard switchstart, available in 55W compact (emergency only)
- Emergency versions provide up to 3 hr back-up
- 2 x M20 cable entries at each end
- Degree of Protection - IP66



Lamps not supplied unless otherwise stated. Call for details.

### 7 SERIES EMERGENCY FLUORESCENT LUMINAIRES

Ex d IIB & IIC T5, T6, Zone 1 + 2 (Gases), II 2 G



- Corrosion resistant light alloy with epoxy paint finish as standard
- Switchstart control gear as standard 240V 50Hz. Electronic versions available
- Available with polycarbonate overtube, optional glass available
- 2 x M20 entries (1 plugged)
- Various accessories available
- Available in 8W, 18W, 36W, 58W
- Degree of Protection – IP66
- Through wired option for 8W + 18W versions

### 7 SERIES FLUORESCENT LUMINAIRES

Ex d IIB & IIC, T5, T6, Zone 1 + 2 (Gases), II 2 G



- Corrosion resistant light alloy with epoxy paint finish as standard
- Electronic control gear as standard 220-250V, 50/60Hz H.F.
- Available with polycarbonate overtube, optional glass available
- 2 x M20 entries (1 plugged)
- Various accessories available
- Available in 8W, 18W, 36W, 58W, 70W
- Degree of Protection – IP66
- Through wired option



### 7 SERIES HIGH OUTPUT LINK LIGHT LUMINAIRE

Ex d IIC, T4, Zone 1 + 2 (Gas), II 2 G



- IP Rating IP66
- For use on 110v AC supply
- Supplied with 10 metres of cable plus Ex ed 110v plug and coupler socket
- Units can be daisy-chain linked together
- Ideal for portable/temporary usage
- Up to 55W compact fluorescent lamps

## Fluorescent Lighting

### 9R SERIES EEX ED RECESSED LUMINAIRES

EExed IIC, T4, T5 Zone 1 + 2 (Gas & Dust), II 2 G, II 3D



- IP Rating – IP55
- High frequency control gear 220 – 240v 50-60 Hz
- 110v – 130v option available
- Sizes – 18w, 36w + 58w in standard and emergency options



### 9 SERIES FLUORESCENT LUMINAIRES STANDARD AND EMERGENCY

EEx ed IIC, T4, T5, Zone 1 + 2 (Gas + Dust), II 2 G 3D



Part No.	Description
9218/HF	2 x 18W Bi-pin standard
9236/HF	2 x 36W Bi-pin standard
9258/HF	2 x 58W Bi-pin standard
9218/HF/EM	2 x 18W Bi-pin emergency
9236/HF/EM	2 x 36W Bi-pin emergency
9258/HF/EM	2 x 58W Bi-pin emergency

- IP Rating – IP66
- Rigid construction
- High frequency control gear
- Available in 110v – 130v 50/60 Hz options (2 x 18w + 2 x 36w)
- 2 x M20 entries each end
- Body – Polycarbonate cover, AA25 anodised corrosion resistant aluminium
- Emergency type – 3Hr battery back-up



### 9 SERIES PORTABLE/TEMPORARY LINK LIGHT

EEx de IIC, T4, Zone 1 + 2, II 2 G



- IP Rating – IP66
- Alloy and polycarbonate enclosure
- For use on 110 v AC supply
- 2 channel ballasts
- Supplied with 10 metres of cable plus EExd certified 110v plug and coupler socket
- Units can be daisy-chain linked together



Lamps not supplied unless otherwise stated. Call for details.

### XN SERIES FLUORESCENT LUMINAIRES

EEx n, T4, Zone 2 + 22 (Gas & Dust), II 3 GD



Part No.	Description
XN218/HF+EM	2 x 18W Bi-pin
XN136/HF+EM	1 x 36W Bi-pin
XN236/HF+EM	2 x 36W Bi-pin
XN158/HF+EM	1 x 58W Bi-pin
XN258/HF+EM	2 x 58W Bi-pin



Note: /HF = Standard Type;  
EM = Emergency Type

- IP Rating – IP65
- Unrestricted breathing enclosure
- High frequency ballast as standard 220 – 250v 50/60Hz
- 1 x M20 cable entry each end
- Stainless steel fixing clips
- Available in standard and emergency versions

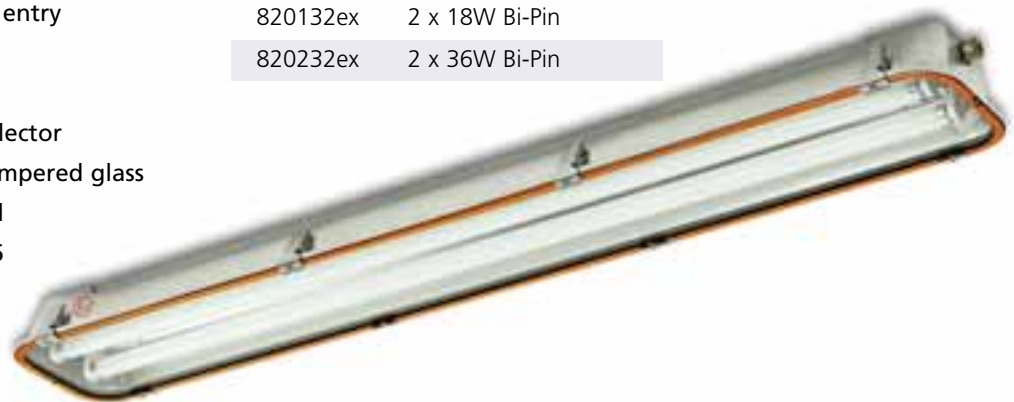
### RINO EX STAINLESS STEEL LUMINAIRES

II 3G EEx nA T5 X II 2D, Zone 2 + 22 (Gas + Dust)



- G13 Lampholder
- 1 x 3/4 Gas threaded cable entry
- 220/240V ±10%, 50/60 Hz
- Stainless steel fitting
- Ultra bright aluminium reflector
- Diffuser screen made of tempered glass
- Suspension hooks provided
- Degree of Protection - IP66

Part No.	Description
820132ex	2 x 18W Bi-Pin
820232ex	2 x 36W Bi-Pin



### RINO EX STAINLESS STEEL EMERGENCY LUMINAIRES

II 3G EEx nA T5 X II 2D, Zone 2 + 22 (Gas + Dust)



- G13 Lampholder
- 1 x 3/4 Gas threaded cable entry
- 220/240V ±10% = 50/60 Hz
- Stainless steel fitting
- Ultra bright aluminium reflector
- Diffuser screen made of tempered glass
- Suspension hooks provided
- Degree of Protection - IP66
- Battery back-up = 1hr



Part No.	Description
820111ex	2 x 18W Bi-Pin
820211ex	2 x 36W Bi-Pin
82001	Pair of hooks for pendant installation (stainless steel 304 grade)

## Bulkheads

### RINO EX BULKHEAD

EEx nA T5 (831172, 830072), EEx nA T4 (831272), Zone 2



- E27 Lampholder (100/200W)
- Grey painted aluminium alloy base
- Glass diffuser c/w steel tropicalised wire guard
- Degree of Protection - IP65



Part No.	Description
831172	100W Oval Bulkhead c/w wire protective guard, 1 x 1/2 gas top entry
831272	200W Oval Bulkhead c/w wire protective guard, 1 x 1/2 gas top entry
830072	100W Round Bulkhead c/w wire protective guard, 1 x 1/2 gas top entry

### 6590 LED LIGHT CLUSTER

Zone 2 (Gases), Zone 21 and 22 (Dusts)



- Polyamide housing, polycarbonate cover
- Flexible and quick installation
- Suitable for stairs, emergency lighting, cabinet lighting, small rooms
- Low maintenance cycles due to long life LEDs
- Ingress protection - IP66/IP67

Part No.	Description
6590/1	24V AC/DC 50/60Hz
6590/2	48V AC/DC 50/60Hz



Lamps not supplied unless otherwise stated. Call for details.

**6388/6788 GLS BULKHEAD LIGHT**

Zone 1 and 2 (Gases) – Part No 6388/1-2-2, Zone 2 (Gases) – Part No 6788/1-2-2



- Suitable for incandescent lamps up to 100W
- 2 x M25 entries
- Fitted with protective steel guard
- Ingress protection - IP64

Part No.	Description
6388/1-2-2	100W GLS 230V
6788/1-2-2	100W GLS 230V



**VL20 VANGUARD BULKHEAD LUMINAIRE**

Ex II 3G EEx nR II T4, Zone 2 (Gases)



- Restricted breathing enclosure
- Lamp options: 70W SON, 80W Mercury Vapour & 150W GLS
- Fully self contained incorporating ballast and power factor correction where necessary – all HID luminaries are supplied with a 2.0A in-line fuse
- Optional factory fitted wire guard
- Easily installed and maintained
- 150W GLS blue, red, yellow & green lens versions available
- Zone 1 LED version on request
- Ingress protection - IP66/IP67

Part No.	Description
VANN/070/HS	70W SON
VANN/150/GL	150W GLS
VANN/080/MV	80W Mercury Vapour



**OVAL BULKHEADS**

EEx d IIB T4 or T6, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts), II 2 GD



- Grey painted aluminium body and bezel 60 to 100W
- Sealed toughened lamp glass
- Flanged flameproof joint
- Degree of Protection - IP66
- E27 lampholder

Part No.	Description
0947 09	100W Clear
0947 08	60W Red
0947 12	60W Green



Lamps not supplied unless otherwise stated. Call for details.

## Bulkheads

### FLAMEPROOF ROUND BULKHEAD

EExd IIC T3, T4, T5, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts)



Part No.	Description
0947 54	200W Incandescent (lamp not supplied)
0950 91	Zinc plated steel protective guard



- Grey painted marine grade aluminium body and bezel
- Sealed toughened lamp glass
- Threaded flameproof joint
- E27 lampholder
- Degree of Protection - IP66

### ROUND BULKHEAD

EEx nR II T5 or T4, Zone 2 (Gases), Zone 22 (Dusts)



- 60 to 150W max., mixed 100W max
- Grey painted aluminium alloy base
- Glass diffuser
- Silicone gasket
- E27 lampholder
- Degree of Protection – IP65

Part No.	Description
0969 01	150W Incandescent or 100W Mixed (lamp not supplied)
0958 55	Zinc plated steel protective guard
0958 56	Spare lamp glass

### 621C SERIES BULKHEAD

EEx de IIC T3 to T6, Zone 1 + 2 (Gas + Dust)



- Supply voltage - tapped choke, set at 240V 50Hz as standard
- Corrosion resistant light alloy with epoxy paint finish as standard
- 2 x M20 entries (1 plugged)
- Available in 200W GLS; 50W, 70W SON; 50W, 80W, 125W MBF
- High ambient versions available
- Degree of Protection - IP66
- Protective wire guards and reflectors available



**457 BULKHEAD LUMINAIRE**

EEx nC, Zone 2 + 22 (Gas + Dust), II 3 GD



- IP Rating – IP67/68
- 15 metre submersion (subject to appropriate glanding)
- Cast iron body with epoxy paint finish, glass cover
- 1 x M20 entry (bottom) as standard
- Available in 150w GLS max or 25w compact fluorescent

**DN SERIES BULKHEAD LUMINAIRE**

EEx nC, Zone 2 + 22 (Gas + Dust), II 3 GD T3



- IP Rating – IP65
- Body of aluminium alloy, grey painted with glass cover
- 1 x M20 cable entry top and bottom as standard
- Available in 200w max GLS, 80W MBF, 70w SON/MBI



Part No.	Description
DN200	200w max GLS
DN80	80w MBF
DN70	70w Son/MBI

**VL25 VANGUARD HELIDECK LUMINAIRE**

Ex II 3 G EEx nR II T3, IP66/IP67, Zone 2 (Gases)



- Restricted breathing enclosure
- Available in 150W GLS with blue, yellow, green or red lens
- Wire guard fitted as standard
- 250W max - E27 lampholder
- Zone 1 LED versions available upon request

Part No.	Description
VANN/150/GL/HE	150W GLS



Lamps not supplied unless otherwise stated. Call for details.

## Wellglass

### VL38 TITAN WELLGLASS LUMINAIRE

Ex II 2 GD EEx de IIC T\*, IP66/IP67, Zone 1 (Gases), Zone 21 (Dusts)



Part No.	Description
T18D/050/HS	50W SON
T18D/050/MV	50W Mercury Vapour
T18D/070/HS	70W SON/Metal Halide
T18D/080/MV	80W Mercury Vapour
T18D/125/MV	125W Mercury Vapour
T18D/100/GL	100W GLS
T18D/200/GL	200W GLS

- Flameproof type
- Ambient temperature -50°C to +68°C
- Maintenance free option available with Philips QL lamp
- QL option gives instant restart and good colour rendering
- Lightweight construction
- Options include external spun reflector. Other accessories available
- Compact fluorescent versions available

### VL39 TITAN WELLGLASS LUMINAIRE

Ex II 2 GD EEx de IIC T\*, IP66/IP67, Zone 1 (Gases), Zone 21 (Dusts)



- Flameproof type
- Ambient temperature range from -20°C to +55°C
- Maintenance free option available with Philips QL lamps
- Lightweight construction
- Other options available include: External spun reflector, other accessories available, 500W GLS options



Part No.	Description
T19D/150/MS	150W HPS/Metal Halide
T19D/250/MS	250W HPS/Metal Halide
T19D/400/MS	400W HPS/Metal Halide
T19D/250/MV	250W Mercury Vapour
T19D/400/MV	400W Mercury Vapour
T19D/165/QL	165W QL

### FLAMEPROOF WELLGLASS

EEx de IIB T6, T5, T4, T3, T2, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts)



- Rated 230/240V ± 10%, 50Hz
- Grey painted marine grade aluminium body and bezel
- Internal aluminium reflector
- Sealed shock resistant wellglass, IIB version hinged
- High temperature internal wiring
- Operates in any position subject to lamp type
- Degree of Protection – IP66/67

Part No.	Description
0950 25	100W Sodium
0950 23	150W High Pressure Sodium
0950 21	250W High Pressure Sodium
0950 26	250W Metal Halide
0950 19	250W Mercury Vapour

Lamps not included  
Also available in IIC options  
Various accessories available on request

**610C SERIES WELLGLASS/BEACON**

EEx de IIC T3, T4, Zone 1 + 2 (Gas + Dusts), II 2 GD



- Wire guard as standard (beacon only)
- Beacons available as xenon flashing, static or rotating types
- Corrosion resistant light alloy with epoxy paint finish as standard
- 2 x M20 entries (1 plugged)
- Wellglasses available in 150W GLS 70W, 110W SON, 80W 125W MBF
- Degree of Protection - IP66
- Ballast set at 240V 50Hz as standard - tapped ballast

**620C SERIES WELLGLASS**

EEx de IIC T2 to T6, Zone 1 + 2 (Gas + Dusts), II 2 GD



- Optional wire guards and reflectors
- Corrosion resistant light alloy with epoxy paint finish as standard
- 2 x M20 entries (1 plugged)
- Available in 200W GLS, 125W and 250W MBF, 150W and 250W SON, 250W MBI
- High ambient versions available
- Degree of Protection - IP66
- Ballast set at 240V 50Hz as standard - tapped ballast

**630 SERIES WELLGLASS**

EEx de IIB T3 to T4, Zone 1 + 2



- Optional wire guards and reflectors
- Corrosion resistant light alloy with epoxy paint finish as standard
- 2 x M20 entries (1 plugged)
- Available in 400W SON, 400W MBI, 400W MBF
- Degree of Protection - IP66
- Supply voltage: 240V 50Hz as standard

## Pendant Lighting

### VL14 MONARCH PENDANT LUMINAIRE

II 3GD EEx nR II T4/T5, IP67, Zone 2 (Gases), Zone 22 (Dusts)



- Extensive lamp options:  
70W SON, 80W and 125W MBF,  
200W GLS (max), 160W MBTF
- Low loss ballast with power factor correction  
for HID and compact fluorescent lamps
- Optional wire guard and reflector
- Easily installed and maintained

Part No.	Description
MONN/070/HS	70W High Pressure Sodium
MONN/080/MV	80W Mercury Vapour
MONN/125/MV	125W Mercury Vapour
MONN/200/GL	200W GLS

### VL15 MONARCH II PENDANT LUMINAIRE

Ex II 3 G EEx nA nR II, IP65, Zone 2 (Gases)



- Up to 4 x M20 cable entries
- Corrosion resistant
- Unrestricted breathing gear enclosure  
removes the need for special glands or  
cable
- Excellent light distribution
- Optional wire guard, domed and  
angled reflectors upon request



Part No.	Description
MO2N/050/HS	50W High Pressure Sodium
MO2N/070/MS	70W HPS/Metal Halide
MO2N/100/MS	100W HPS/Metal Halide
MO2N/150/MS	150W HPS/Metal Halide
MO2N/250/MS	250W HPS/Metal Halide
MO2N/400/MS	400W HPS/Metal Halide
MO2N/080/MV	80W Mercury Vapour
MO2N/125/MV	125W Mercury Vapour
MO2N/250/MV	250W Mercury Vapour
MO2N/400/MV	400W Mercury Vapour

### 6050 RANGE PENDANT LIGHT FITTINGS

EEx de IIC T\* , IP66, Zone 1 (Gases), Zone 21 (Dusts)



- Available light sources:
  - High pressure sodium lamps (HSE)
  - Metal halide lamps (HIE)
  - Halogen lamps (QT)
  - Compact lamps (TC-TSE)
  - Blended lamps (LME)
  - Mercury (HME)
- Salt water resistant housing in  
aluminium, optional lacquer coat
- Double lamp service life with TwinArc  
technology for high pressure sodium lamps
- Maintenance free operation and longer  
lamp service life with induction lamps
- Mounting with ring bolts or tiltable  
mounting bracket
- Connection box for easy mounting
- External reflector and wire guard



#### Available Wattages:

Halogen (QT) – 150W, 250W, 500W
Metal halide (HIE) – 70W, 100W, 150W, 250W, 400W
High pressure sodium (HSE) – 50W, 70W, 110W 150W, 250W, 400W
Mercury (HME) – 125W, 250W, 400W

Various spares available on request

Lamps not supplied unless otherwise stated. Call for details.

Pendant Lighting / Floodlighting

**6470 RANGE PENDANT LUMINAIRES**

EEx nR II T\*, IP66, Zone 2 (Gases), Zone 21 and 22 (Dusts)



- Three sizes are available:
  - Size 1 up to 150W
  - Size 2 up to 250W
  - Size 3 up to 600W
- Available light sources:
  - High pressure sodium lamps (HSE)
  - Metal halide lamps (HIE)
  - Mercury lamps (HME)
  - Induction lamps (QL)
  - Halogen lamps (QT)
  - Blended lamps (LME)
  - Incandescent lamps (A)
- Versatile mounting methods:
  - Ceiling, wall and pole mounting
  - Mounting bracket
  - Pendant mounting
- Salt water resistant housing in aluminium
- Lamp glass made of temperature resistant borosilicate glass



**Available Wattages:**

Halogen (QT) – 150W, 250W, 500W

Metal halide (HIE) – 70W, 100W, 150W, 250W, 400W

High pressure sodium (HSE) – 50W, 70W, 110W, 150W, 250W, 400W, 600W

Mercury (HME) – 125W, 250W, 400W

Various spares available on request

**VL64A EQUAL PLUS FLOODLIGHT**

Ex II 2 GD EEx de IIB, IP66/IP67, Zone 1 (Gases), Zone 21 (Dusts)



Part No.	Description
64ED/150/MS	150W SON/Metal Halide
64ED/250/MS	250W SON/Metal Halide
64ED/400/MS	400W SON/Metal Halide
64ED/500/TH	500W Tungsten Halogen

- Material – LM6 aluminium alloy, epoxy paint finish, toughened soda lime glass plate
- 2 x 20mm cable entries
- 220V, 230V, 240V or 254V 50Hz via a multitapped ballast
- Narrow or wide beam
- Power factor - better than 0.85
- E40 lampholder
- 60Hz versions available on request

## Floodlighting

### VL65A MINI FLOODLIGHT

Ex II 2GD T3, IP66/IP67, Zone 1 (Gases), Zone 21 (Dusts), EExde



- Material – LM6 aluminium alloy, epoxy paint finish, toughened soda lime glass plate
- 2 x 20mm cable entries
- 220V, 230V, 240V or 254V 50Hz
- Narrow or wide beam
- Power factor - better than 0.85
- E27 lampholder
- 60Hz versions available on request



Part No.	Description
V65D/050/HS	50W HPS
V65D/050/MV	50W Mercury Vapour
V65D/070/MS	70W HPS/Metal Halide
V65D/080/MV	80W Mercury Vapour
V65D/125/MV	125W Mercury Vapour
V65D/250/TH	250W Tungsten Halogen

### VL100 FLOODLIGHT

Ex II 3 GD EEx nR II T3, IP66/IP67, Zone 2 (Gases), Zone 22 (Dusts)



- Aluminium alloy LM6, epoxy powder coated, toughened glass
- Ambient temperature  $-50^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$
- 2 x 20mm cable entries
- 220V, 230V, 240V, 250V 50/60Hz
- Electronic ballast, H.F.
- Galvanised steel stirrup bracket
- Optional wire guard available on request

Part No.	Description
V10N/150/MS	150W SON/Metal Halide
V10N/250/MS	250W SON/Metal Halide
V10N/250/MV	250W Mercury Vapour
V10N/400/MS	400W SON/Metal Halide
V10N/400/MV	400W Mercury Vapour
V10N/500/TH	500W Tungsten Halogen

### VL71 REGENT FLOODLIGHT

Ex II 3 GD EEx nR II, IP66/IP67, Zone 2 (Gases), Zone 22 (Dusts)



- Lightweight construction
- Marine grade stainless steel body and toughened glass cover
- High efficiency symmetrical reflector
- Quick release fasteners for easy relamping and maintenance
- 110/120V versions available
- Optional wire guard available
- Complete with mounting bracket

Part No.	Description
REGN/150/MS	150W HPS & Metal Halide
REGN/250/MS	250W HPS & Metal Halide
REGN/400/MS	400W HPS & Metal Halide
REGN/500/TH	500W Tungsten Halogen



Lamps not supplied unless otherwise stated. Call for details.

### 6121 FLOODLIGHTS

IP66/IP67, Zone 1 + 2 (Gases), Zone 21 and 22 (Dusts), II 2 GD



- A range of 'Explosion Protected' Floodlights available in gas groups IIB and IIC
- Available lamp types:
  - Gas group IIB – Halogen – 500W max
  - High pressure sodium – 400W max
  - Metal halide – 400W max
  - Gas group IIC – Halogen, metal halide and high pressure sodium (600W max on high pressure sodium)
- Fitted with stirrup bracket
- Housing of sea water resistant cast aluminium

### 6521/3 FLOODLIGHTS

IP66, Zone 2 (Gases), Zone 21 and 22 (Dusts), II 2 GD



- Stainless steel housing
- Various accessories available (reflectors, visors, etc.)
- Available lamp types:
  - High pressure sodium – up to 600W max
  - Metal halide – up to 400W max
  - Halogen – up to 1000W max



### FLOODLIGHTS

EEx nR II T2/T3/T4/T5, II 3 GD, Zone 2 (Gases), Zone 22 (Dusts)



- 230/240 V  $\pm$  10% 50 Hz compensated power supply - Power factor  $\geq$  0.9
- Painted aluminium alloy cover
- Glass sealed on hinged frame
- Anodised aluminium internal reflector
- E40 lampholder (E27 for 70W HP Sodium)
- 2 self-tightening connection terminal blocks: Capacity: 2 x 6mm<sup>2</sup> max
- Two threaded cable entries, M20
- Degree of Protection - IP66



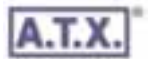
Part No.	Description
0950 33	70W HP Sodium
0950 36	150W HP Sodium
0950 42	250W HP Sodium
0950 43	400W HP Sodium
0950 46	250W Metal Halide
0950 47	400W Metal Halide

Other lamp types available

## Floodlighting

### FLAMEPROOF FLOODLIGHTS

EExde IIB T4,T3,T2,T1, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts)



- Suitable for armoured or non armoured cable
- Grey painted marine grade aluminium alloy body and bezel
- Toughened glass sealed onto frame
- Stainless steel fasteners
- Highly polished anodised aluminium internal reflector
- Increased safety terminal box
- Degree of Protection – IP66
- Supply voltage  
230/240V ± 10% 50Hz
- Side entry for easy re-lamping



Part No.	Description
0951 66	150W, HP Sodium
0951 69	250W, HP Sodium
0951 79	400W, HP Sodium
0951 67	250W, Mercury Vapour
0951 73	400W, Mercury Vapour
0951 68	250W, Metal Halide
0951 77	400W, Metal Halide
0951 84	500W/1000W, Halogen
0951 93	Galvanised steel stirrup mounting bracket

Other accessories available on request

### 8 SERIES FLOODLIGHT

EEx de IIB T2, T3, Zone 1 + 2 (Gas + Dusts), II 2 GD



- Corrosion resistant light alloy with epoxy paint finish as standard
- 2 x M20 entries (1 plugged)
- Fitted with angled mounting bracket
- Side entry access for easy re-lamping
- Available in 70W, 150W, 250W, 400W SON/T; 150W, 250W, 400W MBI; 500W, 750W, 1000W Tungsten Halogen; 80W, 125W, 250W, 400W MBF
- Degree of Protection - IP66

### ZT FLOODLIGHT LUMINAIRE

EEx nA, Zone 2 + 22 (Gas + Dust), II 3 GD T3 or T4



- IP Rating – IP66
- Unrestricted breathing enclosure
- Relamping via front hinged lid
- Fitted with mounting bracket
- Die cast LM25 alloy, epoxy paint finish
- Available in 70w and 150w SON, 250w and 400w SON/MBI, 250w and 400w MBF, 500w tungsten halogen



Lamps not supplied unless otherwise stated. Call for details.

### LITEGUIDE LIGHTING DESIGN SOFTWARE



Victor Lighting has created a design program to assist in the development of your installation's lighting design. This easy to use package allows new designs to be developed rapidly, removing the need to use time consuming and complicated photometric tables. This package is available free of charge, no licence is required to run LiteGuide.

LiteGuide allows you to:

- Design lighting layouts from the very basic to the extremely complex
- Account for shadowing and effects of reflection
- Incorporate interior and exterior components in a single scheme
- Use shortcut icons to:
  - Turn individual fittings on/off or assess in emergency mode
  - Move, change or delete luminaires easily
  - Re-size icons to suit the scale of your project
- Use scrolling wheel mouse to zoom in/out
- Import and export to CAD packages (DXF format)
- Print to a pdf or hard copy (A0 to A4 sizes)



LiteGuide also includes quantity estimators for interior, exterior and isle lighting schemes to allow for quick and easy budgeting.

To obtain a copy of LiteGuide, please contact EMS.

### 6147 SERIES HAND LAMPS



II 2 GD EEx ed IIC T4/T3 , IP65, Zone 1 and 2 (Gases), Zone 21 and 22 (Dusts)

- Soft rubber hand grip vulcanised around an aluminium reinforcement
- Suitable for incandescent lamps up to 60W
- Can be supplied with or without fitted connection lead
- Zinc coated wire guard, plastic coated steel wire guard available
- Glass cover resistant to temperature changes

Part No.	Description
6147/2-1	Hand lamp, galvanised wire guard
6147/2-2	Hand lamp, galvanised and PVC wire guard



### 6144 PORTABLE HANDLAMPS



IP65 (Hand Lamp only) Ex II 2G, EExib II C T4, Zone 1 + 2



- Powerful xenon lamp
- Adjustable lamp head
- Charging unit displays voltage and battery state

Part No.	Description
6144/10	Hand Lamp without charging unit (Ex)
6144/11	Hand Lamp with charging unit (Ex) (12/24V DC + 230V AC)
6144/01	(Non-Ex) Charging Unit (12/24V DC + 230V AC)

## Handheld & Portable Lighting

### 6149 REPAIR LIGHT

IP66/67, Zone 1 and 2 (Gases), Zone 21 and 22 (Dusts)



- Portable unit which can be hand-held or hooked on in a suitable position
- Available in:  
12V AC 50/60Hz, 12V DC, 24V DC,  
24V AC 50/60 Hz, 110-230V AC 50/60Hz
- Supplied with 5 metre cable length
- With or without wire guard

### 6145 PORTABLE HANDLAMP

Ex II 2G EEx eib IIC T4 , IP54, Zone 1 and 2 (Gases)



- Complies with requirements of Fire Department Standard DIN14462
- Open circuit monitor
- Battery state display
- NiCd battery, gas-tight
- Charging units non-Ex (L145/92, L145/93)



Part No.	Description
6145/2	Lamp with integrated charging unit and monitoring electronics
L145/92	230V Charging unit with emergency light function
L145/93	12/24V Charging unit without emergency light function for installation into vehicles

### TRIPOD MOUNTED LINK LIGHT

EExd II 2 G II C, T5, T6, Zone 1 + 2 (Gases)



- Robust shape and housing. Polycarbonate cover
- Adjustable light head on folding stand
- High output using twin 36W or 55W compact lamps
- For use on 110V AC supply only
- Supplied with 20 metres of cable and EEx certified 110V plug
- Supplied with Eexe stand mounted socket outlet
- Degree of Protection – IP66
- Can be linked to second stand

Lamps not supplied unless otherwise stated. Call for details.

**TORCHES**

EEx ibe IIC T4 or T6, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts) II 2 GD



- Shockproof and antistatic treated polyamide body
- Polished internal reflector
- Polycarbonate lens
- Stainless steel hook
- Luminescent switch on side
- LR20 or R20 battery (not supplied)
- Degree of Protection - IP66



Part No.	Description
0951 05	2 Cell Halogen
0951 02	2 Cell Incandescent
0951 03	3 Cell Incandescent

**6140 HAND TORCHES**

IP65, Zone 0, 1 and 2 (Gases) – Zone 20, 21 + 22 (Dusts) Part No 6140/1-1



- Polyamide enclosure, polycarbonate lens



**6141 HAND TORCHES**

EEx ibe IIC T4 , Zone 1 and 2 (Gases), Zone 21 + 22 (Dusts) II 2 GD



Part No.	Description
6141/2-2	2.5v / 0.3A
6141/2-3	3.7v / 0.3A

- IP Rating – IP66
- Continuous and Morse operation possible
- Plastic enclosure with polycarbonate lens
- For use with alkaline batteries
- Spare bulbs available





**EMS**

hazardous area products

# Control & Products Switchgear

Stahl Products	37 - 40
Cooper Crouse-Hinds Products	40 - 41
ATX Products	41
Petrel Products	42
Palazzoni Products	42
MEDC Products	43 - 44
E2S Products	44 - 46
Switchgear Stahl Products	47

### PANEL MOUNTED PUSHBUTTONS, SWITCHES AND LEDS

II 2 GD EEx IIC T6, IP65/IP66, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts)



- Polyester/Polyamide materials
- Various optional contact arrangements
- Type 8018 supplied with 6 metres of flexible lead

Part No.	Description
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Types 8003, 8013 & 8018

Many variations available on request



### 8040 RANGE CONTROL STATIONS

II 2 GD EEx IIC T6, IP66, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts)



- GRP (Polyester resin) enclosures
- Entries available 1 or 2 x M20
- Rated voltage – 690V AC
- Available from stock
- Various permutations available, with pushbuttons, LED's, switches

Part No.	Description
8040-1170-001-022	Start Spring Return
8040-1170-010-021	Mushroom Head "Emergency Stop" Stay-put
8040-1270-001/022-010-021	Start/Mushroom Head "Emergency Stop" Stay-put
8040/1370-054/064-colour*/001-022-010-021	Indicator/start/Mushroom Head "Emergency Stop"
8040-1170-731-160-002-0-off/on	2 Position Rotary Switch Padlockable 2 No Contacts

Optional St/Steel flap cover, or inadvertant bracket

EMS is approved to assemble Control Stations in-house tailored to your needs. Please call us with details of your specific requirements.



## Control Products

### 8060/8070 RANGE LIMIT SWITCHES

II 2 GD EEx ed IIC T6, IP65, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts)



- Both 8060/8070 range housings are of GRP
- Entries available 1 x 20mm
- Rated current – 10A max
- Various contact options available on request
- 8060 plunger/roller is of moulded plastic
- 8070 extended plunger is of stainless steel
- 8070 roller is of moulded plastic



Part No.	Description
8060/1-.-S	Extended Plunger
8060/1-.-RS	Roller Plunger
8070/1-.-S	Extended Plunger
8070/1-.-RS	Roller Plunger

Other types of switch/actuator heads available on request

### 8030 INSTALLATION SWITCHES

II 2 GD EEx ed IIC T6, IP65, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts)



- GRP enclosure
- Entries available 3 x M25 - 1 top, 2 bottom
- Rated voltage - 500V AC
- Rated current - 16 A

Part No.	Description
8030/51-033	On-Off Switch
8030/51-035	Changeover Switch

### 8537 SAFETY SWITCHES

II 2 GD EEx ed IIC T6, IP65, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts)



- GRP (polyester resin)
- Rated voltage - 690V AC (500V for 80A)
- Motor switching capacity AC3 and AC23 according to IEG 60947-3, En 60947
- Can be padlocked in "OFF" position



Part No.	Description
8537/2-701-7000	12/16A 3 Pole + 1 aux
8537/2-702-7000	16A 3 Pole + 1 aux
8537/2-703-7000	25A 3 Pole + 1 aux
8537/2-705-7000	40A 3 Pole + 1 aux
8537/2-706-7000	63/80A 3 Pole + 1 aux

125/160A and 6 pole versions available in all ratings

3 pole = +1 NO AUX contact

6 pole = +2 NO AUX contact

### 8146 SERIES CONTROL STATIONS

II 2 GD EEx ed mq ia/ib IIc T6/T5/T4, IP66, Zone 1 and 2 (Gases), Zone 21 and 22 (Dusts)



- Enclosures in glass fibre reinforced polyester resin
- 8 basic enclosure sizes with various heights
- Various build options are available with P/B, LEDs, ammeters etc

Contact EMS for further details



### SPARE COMPONENTS TO SUIT 8040/8146 CONTROL STATIONS

Zone 1 and 2 (Gases), Zone 21 and 22 (Dusts)



Part No.	Description
<b>Actuators</b>	
8602804177AA	Spring Return Momentary Pushbutton, less insert disc
8602807177AA	38mm Red Twist to Release Emergency Stop Pushbutton
8602808177AA	55mm Red Twist to Release Emergency Stop Pushbutton
8602811177AA	Double Momentary Spring Return Pushbutton
8602813177AA	38mm Red Emergency Stop Key Release Mushroom Head Pushbutton
8602802177AA	Small Black Rotary 2 Position Handle (726)
8602802177VA	Small Black Rotary 3 Position Handle (726)
8602802167	Large Rotary Padlockable Handle Black (731)
8602803167	Small Rotary Padlockable Handle Black (734)
8602808167AA	Small Rotary Non-Padlockable Handle Black (732)
8602807167	Momentary Illuminated Pushbutton (735)
<b>Contact Blocks &amp; Switch Interiors</b>	
8082001010	Single N/C Contact Block
8082002010	Single N/O Contact Block
8008/2-0--	2 Pole Switch Element
8008/2-1--	4 Pole Switch Element
<b>LED Diode Lamps</b>	
8010010010	12V-254V AC/DC White
<b>Lens &amp; Bezels</b>	
8602803587AA	Red Lens & Bezel
8602803587AB	Yellow Lens & Bezel
8602803587AC	Green Lens & Bezel
8602803587AD	White Lens & Bezel
8602803587AE	Blue Lens & Bezel

A range of additional accessories such as ammeters, coloured insert discs, labels, terminal blocks, potentiometers are available. Ask for further details.

## Control Products

### 8146/5075 GROUNDING SYSTEMS/MONITORING DEVICE

Zone 1 and 2 (Gases)



Part No.	Description
8146011010	Grounding Monitoring Device – Establishes electrostatic grounding of tank container and drums and monitors the connection continuously
3116320	10 metres of straight cable fitted with grounding clamp
3116340	5 metres of spiral cable fitted with grounding clamp
3116350	10 metres of spiral cable fitted with grounding clamp

Stainless steel grounding clamp for indoor or outdoor use

- Robust design
- Monitors electrostatic grounding of tank container and drums during loading and unloading of flammable liquids
- Potential free contact for signalisation to the control system and control of alarm devices



### INSTALLATION SWITCHES

Ex II 2 GD EEx de IIC T6, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts)



- Degree of Protection - IP66
- Polyamide
- 2 x 20mm entries
- 250V Rated Voltage
- Rated current: - 16amp

Part No.	Description
GHG2732000R0003	On-Off 2 Pole Switch
GHG2736000R0003	Change Over Switch

### SAFETY SWITCHES

II 2 GD EEx de IIC T6, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts)



- Degree of Protection - IP66
- GRP material
- 2 x 20mm entries or 2 - M25 entries
- Rated Voltage, up to 690V



Part No.	Description
GHG 261 0005 R0005	10 amp 3 pole + 1 aux
GHG 262 2301 R0007	20 amp 4 pole + 1 aux
GHG 263 2301 R0007	40 amp 4 pole + 1 aux

Other ratings and 6 pole versions also available

### CONTROL STATIONS

II 2 GD EExed IIC T6, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts)



- Degree of Protection - IP66 (with double push-button IP65)
- Impact resistant thermoplastic
- 1 x 20mm or M25 entry
- 690V AC Rated Voltage
- 16 amp max rated current
- Contact blocks 1 NO + 1NC

Part No.	Description
GHG 411 8151 R0003	Start Spring Return
GHG 411 8151 R0001	"Emergency Stop" Stay-put Mushroom Head
GHG 411 8251 R0001	"Emergency Stop" Mushroom Head Spring Return Start
GHG 411 8351 R0006	Indicator Spring Return Start and Emergency Stop

Other combinations also available.

### FLAMEPROOF SWITCHES

EExd IIC T6-T5, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts)



- Grey painted marine grade aluminium alloy box
- Can be padlocked in positions "O" and "I"
- 2 threaded entries positioned vertically for M20 or M25 cable gland (not Supplied)
- Internal earth: 2 x 4mm<sup>2</sup> terminals
- Degree of Protection - IP66



Part No.	Description
093506	10A 250V 1 Pole Changeover Switch
093507	10A 250V 2 Pole Switch
093529	16A 400V 2 Pole Switch
093530	16A 400V 3 Pole Switch
093531	16A 400V 4 Pole Switch
093544	32A 400V 2 Pole Switch
093546	32A 400V 4 Pole Switch

### ROTARY SWITCHES

EExed IIC T6, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts)



- Rated 16A – 600V
- Polyamide box
- 2 clearance entries for M20 at bottom
- Supplied with 2 x M20 polyamide cable glands
- 1 earth block 2 x 2.5mm<sup>2</sup>
- Degree of Protection – IP66

Part No.	Description
098608	Double pole switch with handle, padlockable in "O" position
098614	Single pole changeover switch (I-II) with handle, padlockable in "I" position

## Control Products

### G RANGE EEXD MOTOR CONTROL/DISTRIBUTION EQUIPMENT

EEx d IIB T4, T5, T6 Zone 1, 2 (Gas and Dust), II 2 GD



- IP Rating – IP65/66
- Full range of motor control gear, distribution boards, fuses, MCCBs, etc., utilising a wide range of enclosures
- Cast iron or alloy enclosures
- Can be supplied with viewing windows
- Many permutations available
- Entries to suit requirements



### G RANGE EEXD SWITCHES, ISOLATORS AND MOTOR STARTERS

EEx d IIB T4, T5, T6 Zone 1, 2 (Gas and Dust), II 2 GD



- IP Rating – IP65/66
- Full range of switch starter and isolator options
- Wide range of enclosure sizes in cast iron or alloy
- Can be fitted with pushbuttons, switches, etc
- Entries to suit requirements
- Isolators up to 300 amp
- Star Delta Starter options available

### TAIS-MIGNON-EX SWITCHES AND CONTROL STATIONS

II 3GD EEx nR II, T6, Zone 2 (Gases), Zone 21 and 22 (Dusts), IP67



- Note: entries range from 1/2 NPT to PG threads



Part No.	Description
202271ex	SP 16A 250V Switch
202282ex	2P 16A 250V Switch
202276ex	SP Two Way 16A 250V Switch
202275ex	SP Two Way 16A 250V Switch
261435ex	NO 10A 250V Control Station
261433ex	On-Off Push Button 10A 240V Control Station
292101ex	16A 2 Pole Rotary Switch
292103ex	16A 2 Pole Rotary Switch
292203ex	25A 4 Pole Rotary Switch
292301ex	40A 2 Pole Rotary Switch
293103ex	40A 4 Pole Rotary Switch
292413ex	63A 4 Pole Rotary Switch

### TYPE XB11 EXPLOSION PROOF 5 JOULE FLASHING XENON BEACON

Ex II 2 GD EEx d IIB T4/T5/T6, Zones 1 and 2, Gas and Dust



- IP Rating - IP66 and IP67
- Material - Black GRP
- Ambient Temperature -55°C to +70°C
- Entries - 2 x 20mm as standard (Up to 4 max)
- Flash Rate - 60 per minute

Part No.	Description
PX811101	24V DC Red Lens
PX811102	24V DC Amber Lens
PX811103	240V AC Red Lens
PX811104	240V AC Amber Lens

Also available in 110V AC, 24V DC

### TYPE SM87/HXB EXPLOSION PROOF 5 JOULE FLASHING XENON BEACON

ATEX, GOST, ATEX Ex II 2 GD, EExd(e) IIC T6, Zones 1 and 2, Gas and Dust



- -55°C to +70°C (EExd)
- -20°C to +40°C (EExde)
- IP Rating - IP66 and IP67
- Stainless Steel or Alloy Body
- 2 x M20 entries
- Flash Rate - 60 per minute

Part No.	Description
PX813005	24V DC Red Lens, Red Body
PX813006	24V DC Amber Lens, Red Body
PX813007	240V AC Red Lens, Red Body
PX813008	240V AC Amber Lens, Red Body



### TYPE DB3 118DB EXPLOSION PROOF SOUNDER

ATEX, GOST SAA, ATEX Ex II 2 GD, EExd(e) IIC T5, Zones 1 and 2, Gas and Dust



- -20°C to +70°C (standard)
- IP Rating - IP66 and IP67
- Corrosion-free GRP
- 2 x 20mm entries with one certified plug fitted
- 27 tones with 5 programmable



Part No.	Description
PX803121	Natural Black Two Stage 12-48V DC
PX803122	Natural Black Single Stage 240V AC
PX803123	Red Two Stage 12-48V DC
PX803124	Red Single Stage 240V AC
PX803125	Red Single Stage 12-48V DC

## Alarms & Sounders

### TYPE BG2 MANUAL BREAKGLASS CALL POINT

ATEX Ex II 1 GD, EExia IIC T4, ATEX Ex II 2 GD, EExed(m) IIC T4 (T6), Zones 1 and 2, Gas and Dust



- -20°C to +50°C (EExed),  
-40°C to +55°C (EExia)
- IP Rating - IP66 and IP67
- Corrosion Resistant  
Red GRP as standard
- Entries - 2 x 20mm

Part No.	Description
PX800004	Increased Safety Call Point EExed
PX800005	Intrinsically Safe Call Point EExia

Other versions available on request

### BExBG05D EXPLOSION PROOF XENON BEACON

Zone 1 & 2, Zone 21 & 22, Category 2G & 2D



- Zone 1 & 2 flameproof
- Zone 21 & 22 dust ignition proof
- 5 joule xenon (5Ws) - 1 Hz synchronised
- EExd IIC T4 (Tamb. -50 to +55°C)
- EExd IIC T5 (Tamb. -50 to +40°C)
- ATEX, CENELEC, FTZU IECEx, GOST R approvals
- EEx d and EEx de versions are available
- 12vdc, 24vdc, 48vdc, 115vac, 230vac
- Also available with 10 & 15 joule beacons, LED status lights



### BExCS110-05D EXPLOSION PROOF COMBINATION SOUNDER STROBE

Zone 1 & 2, Zone 21 & 22, Category 2G & 2D



- Zone 1 & 2 flameproof
- Zone 21 & 22 (BExDCS110-05D)
- Maximum 117dB(A) output
- 32 alarm tones, 3 alarm stages
- 5 joule (5Ws) xenon beacon
- EEx d IIB T4 (Tamb. -50 to +55°C)
- ATEX, CENELEC, FTZU IECEx, GOST R approvals
- All units feature enclosures manufactured from coated marine grade LM6 aluminium with high impact ABS FR re-entrant homs.
- 12vdc, 24vdc, 48vdc, 115vac, 230vac
- Also available with LED beacon, dual 5 joule xenon beacon, 15 watt loudspeaker and beacon

### BExS110D EXPLOSION PROOF ALARM HORN

Zone 1 & 2, Zone 21 & 22, Category 2G & 2D



- Zone 1 & 2 flameproof
- Zone 21 & 22 dust ignition proof (BExDS110D)
- Maximum 117dB(A) output
- 32 alarm tones, 3 alarm stages
- EExd IIC T4 (Tamb. -50 to +55°C)
- ATEX, CENELEC, FTZU IECEx, GOST R approvals
- EEx d and EEx de versions are available
- For fire application alarm horns are CPD EN89/106/EEC compliant (EN54-3 tested)
- Also available in 120dB(A) output



## Alarms & Sounders

### IS-mC1 : IS-MINIALERT

Zone 0, Category 1G, Intrinsically Safe



- Combined alarm horn & LED beacon
- Zone 0, 1 & 2 intrinsically safe
- EEx ia IIC T4 (Tamb. -40 to +60°C)
- Maximum 100dB(A) output
- 49 alarm tones, 3 alarm stages
- Array of 6 high intensity LEDs
- 2 flash modes: Double flash @ 2Hz & 1Hz
- Sealed to IP65
- ATEX, FM IECEx



### IS-mA1 : IS-MINIALARM

Zone 0, Category 1G, Intrinsically Safe



- Alarm horn / sounder
- Zone 0, 1 & 2 intrinsically safe
- II 1G EEx ia IIC T4 (Tamb. -40 to +60°C)
- Maximum 100dB(A) output
- 49 alarm tones, 3 alarm stages
- Sealed to IP65
- ATEX, FM IECEx
- EN54-3 (CPD)
- IS-mA1M - Mining version
- I M1 EEx ia I (-40°C ≤ Ta ≤ +60°C)

### IS-mB1 : IS-MINIALITE

Zone 0, Category 1G, Intrinsically Safe



- LED beacon / status indicator
- Zone 0, 1 & 2 intrinsically safe
- EEx ia IIC T4 (Tamb. -40 to +60°C)
- Array of 6 high intensity LEDs
- 2 flash modes: double flash @ 2Hz & 1Hz
- Sealed to IP65
- ATEX, FM IECEx



### 8527/2 SERIES MOTOR PROTECTION CIRCUIT BREAKERS

Ex 2G D EEx de IIC T, IP66, Zone 1 and 2 (Gases), Zone 21 and 22 (Dusts)



- Protects cables and plant equipment
- For protection of Exe and Exd motors
- Enclosure made of GRP resin
- Various optional shunt trips, ammeters, accessories



### 8146 EExed DISTRIBUTION BOARDS

Zone 1 and 2 (Gases), Zone 21 and 22 (Dusts), IP66



- Enclosures of GRP Resin
- Modular build from a range of different sized enclosures
- Fully certified and made to customer requirements
- Full range of components and accessories





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# Industrial Connectors

Stahl Products	49
Cooper Crouse- Hinds Products	50
ATX Products	50
Palazzoli Products	51
Hawke Products	51

### SOLCONEX PLUGS & SOCKETS

II 2 GD EEx ed IIC T5, T6 IP66, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts)



- GRP/Polyester
- Other ratings and voltages available on request including zone 2, zone 22 versions type 7570, 7571, 7579 and a range of 16 A couplers in various voltages
- Built in rotary isolator switch



Part No.	Description
8570-11-304	110-130V 3 Pin Switched Socket, 16 Amp
8570-12-304	110-130V 3 Pin Plug, 16 Amp
8570-11-306	200-250V 3 Pin Switched Socket, 16 Amp
8570-12-306	200-250V 3 Pin Plug, 16 Amp
8570-11-406	380-415V 4 Pin Switched Socket, 16 Amp
8570-12-406	380-415V 4 Pin Plug, 16 Amp
8571-11-406	380-415V 4 Pin Switched Socket, 32 Amp
8571-12-406	380-415V 4 Pin Plug, 32 Amp
8579-11-406	380-415V 4 Pin Switched Socket, 63 Amp
8579-12-406	380-415V 4 Pin Plug, 63 Amp

### 8591/1 MINI CLIX CONNECTOR

IP66/IP68, Zone 1 and 2 (Gases), Zone 21 and 22 (Dusts)



- Available as flange socket, device plug, plug/coupler
- Available in polyamide, brass nickel plated, stainless steel
- Suitable for rugged industrial conditions
- Cuts maintenance/inspection times
- 10A rated, maximum 4 pin + earth
- Also available in 16A 6 pin + earth variants (8591/2)
- Available in 24V, 110V and 230V voltages ratings



### 502 EX SOLCONEX CABLE REEL

Ex II 2G EEx de IIC T6, IP54, Zone 1 and 2 (Gases)



- Solid rubber reel, halogen-free
- Supplied with flange socket, 30 metres of cable and plug
- Powder coated, steel tube stand
- Inner wedge brake (no grinding on the wheel)



Part No.	Description
3116300	3 Pin 16A 200/250V Blue 50/60 Hz
3116290	5 Pin 16A 200/346V – 240/415V Red 50/60 Hz

## Industrial Connectors

### PLUGS, SOCKETS AND COUPLERS

Ex II 2 GD EEx ed IIC T6, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts)



- Degree of Protection - IP66
- GRP / Polyamide
- Self cleaning contacts



Part No.	Description
GHG5117304R0001	16A 110-130V Plug, 3 pin
GHG5114304R0002	16A 110-130V Socket, 3 pin
GHG5117306R0001	16A 200-250V Plug, 3 pin
GHG5114306R0001	16A 200-250V Socket, 3 pin
GHG5117406R0001	16A 380-415V Plug, 4 pin
GHG5114406R0001	16A 380-415V Socket, 4 pin
GHG5127406R0001	32A 380-415V Plug, 4 pin
GHG5124406R0001	32A 380-415V Socket, 4 pin
GHG5147406R0001	63A 380-415V Plug, 4 pin
GHG5144406R0001	63A 380-415V Socket, 4 pin

### PLUGS, SOCKETS AND MOBILE CONNECTORS

II 2 GD EEx ed IIC T5 or T6, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts)



- Polyamide body for plugs and mobile sockets; polyester sockets with polyamide cover
- Can be padlocked in 3 positions
- Flameproof chamber
- Degree of Protection – IP66



Part No.	Description
0974 26	Socket 16A 2P+E 200-250V
0974 19	Socket 16A 2P+E 110-130V
0974 33	Plug 16A 2P+E 200-250V
0974 30	Plug 16A 2P+E 110-130V
0974 01	Mobile socket 16A 2P+E 200-250V
0974 00	Mobile socket 16A 2P+E 110-130V
0974 27	Socket 16A 3P+E 380-415V
0974 37	Plug 16A 3P+E 380-415V
0974 04	Mobile socket 16A 3P+E 380-415V
0977 27	Socket 32A 3P+E 380-415V
0977 37	Plug 32A 3P+E 380-415V
0977 47	Mobile socket 32A 3P+E 380-415V
0968 44	Socket 63A 3P+E 380-415V
0968 84	Plug 63A 3P+E 380-415V

Other voltages and pin configurations available on request

### PLUGS, SOCKETS AND MOBILE SOCKETS

II 3G EEx nA EEx nR T6X, Zone 2, 21 + 22, IP66



- Cable entries:- PG threads



Part No.	Description
470126ex	200-250V 16A 2 Pin + Earth Wall Socket
477303ex	200-250V 16A 2 Pin + Earth Plug
470136ex	300-415V 16A 3 Pin + Earth Wall Socket
477413ex	300-415V 16A 3 Pin + Earth Plug
470146ex	300-415V 16A 3 Pin + N + Earth Wall Socket
477423ex	300-415V 16A 3 Pin + N + Earth Plug
470226ex	200-250V 32A 2 Pin + Earth Wall Socket
477306ex	200-250V 32A 2 Pin + Earth Plug
470236ex	300-415V 32A 3 Pin + Earth Wall Socket
477416ex	300-415V 32A 3 Pin + Earth Plug
470246ex	300-415V 32A 3 Pin + N + Earth Wall Socket
477426ex	300-415V 32A 3 Pin + N + Earth Plug
470346ex	300-415V 63A 3 Pin + N + Earth Wall Socket
477427ex	300-415V 63A 3 Pin + N + Earth Plug

Other voltages available on request

### EX CONNECTORS

EEx d II 2 GD, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts)



- IP Rating – IP66, IP 67 with deluge protection
- A range of stainless steel connectors for arduous conditions
- Various pin configurations available
- Suitable for gas groups IIA, IIB, IIC
- Fully inspectable flameproof barrier
- Ideal for speedy connection to temporary equipment to minimise downtime





**EMS**

hazardous area products

# Cable Management

Stahl Products	53
Cooper Crouse-Hinds Products	53
ATX Products	53
Feel Products	54
Petrel Products	55
Hawke Products	56 - 59
Hawke Transit Systems	60 - 63

### 8118 JUNCTION BOXES

II 2 GD EEx, IP66, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts)



- Enclosures in glass fibre reinforced polyester resin
- With 2 earth terminals



Part No.	Description
----------	-------------

8118/122/231-GB	Junction Box – 6 x 2.5mm terminals and earth continuity plate and 4 x M20 entries (clearance holes)
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Various other combinations are available on request

### 8146 SERIES TERMINAL BOXES

II 2 GD EEx ed iA/iB IIc T6/T5/T4, IP66, Zone 1 and 2 (Gases), Zone 21 and 22 (Dusts)



- Enclosure in polyester resin
- 8 basic enclosure sizes with various heights
- Can be fitted with terminals up to a maximum of 300mm<sup>2</sup>

Contact EMS for further details



### JUNCTION BOX

Ex II 2 GD EEx e II T6, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts)



- Degree of Protection - IP66
- Polyamide
- 6 x 20mm entries
- 690V Rated Voltage
- Terminals - 8 + 1 PE, pillar terminals
- Internal earth plate

Part No.	Description
GHG7910201R0003	Junction Box

### JUNCTION BOX

EExe II T6, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts)



- Suitable for armoured cable
- High impact resistance polycarbonate body and cover
- Equipped with:
  - 4 interconnected internal earth terminals, maximum capacity per terminal 1 x 4mm<sup>2</sup>
  - 4 connection terminals, maximum capacity per terminal 4 x 2.5mm<sup>2</sup> or 2 x 4mm<sup>2</sup> + 2 x 2.5mm<sup>2</sup>
  - Minimum capacity per terminal 2 x 1.5mm<sup>2</sup>
- Supplied with 2 x M20 plugs (cable gland not supplied)
- Degree of Protection – IP66



Part No.	Description
0961 04	4 x M20 entries with earth continuity

## Cable Management

### 3000 RANGE EXPLOSION PROTECTED JUNCTION BOXES

EExd IIC T, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts)



- Explosion Protected
- Weatherproof
- Hot dip galvanised finish
- Ingress Protection to IP66



Part No.	Description
3004	3004 20mm 4 Way Junction Box
3054	3054 25mm 4 Way Junction Box

Fitted with MK 6/6 terminal  
Other option available

### 9000 RANGE EXPLOSION PROTECTED JUNCTION BOXES

EExe II T, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts), II 2 GD



Part No.	Description
9004	9004 With MK6/6 6 Way Terminal Block with 4 x M20 Entries Unplugged and Earth Continuity Plate

Other terminals and entry options available on request.



- Glass re-inforced polyester enclosure
- Features captive hinged lid
- Ingress Protection to IP66

### 7000 RANGE EXPLOSION PROTECTED JUNCTION BOXES

EExe II T, Zone 1, 2 (Gases), Zone 21 and 22 (Dusts)



- Explosion Protected
- Weatherproof
- Sira certified 99ATEX3154 for Group II, Category 2, G and D
- Galvanised mild steel and stainless steel finishes
- Ingress Protection to IP66

#### ENCLOSURES 7040 to 7750

These are enclosures with gland plates. Top and bottom gland plates are fitted as standard, side gland plates are an optional extra. Covers are fitted with exclusively designed, concealed stainless steel double action lift off hinges. Padlocking facility is fitted as standard. Internal and external earth stud assemblies are 10mm.



### G RANGE EEXD DISTRIBUTION AND JUNCTION BOX EQUIPMENT

EExd IIB, Zone 1 + 2 (Gas & Dust) II 2 GD



- IP Rating – IP66
- Various sizes in cast iron or alloy
- Wide range of terminal types and content options
- Entries to suit requirements



### TE RANGE STAINLESS STEEL TERMINAL BOXES

EEx e IIC T6, Zone 1 + 2 (Gas & Dust) II 2 GD



- IP Rating – IP66
- Various enclosure sizes in 316 grade stainless steel
- Removable gland plate options
- Terminal contents to suit requirements

### GRP JUNCTION/TERMINAL BOXES

EEx e/ia/e(ia) IIC T5 or T6, Zone 1 + 2 (Gas & Dust)



- IP Rating – IP66
- Full range of self extinguishing, halogen free GRP boxes
- Increased safety or intrinsically safe certified
- Various terminal content options



## Cable Management

### PL6 SERIES JUNCTION BOXES

II 2 GD EExe II, Zones 1 and 2, zones 21 and 22



- Ingress Protection to IP66 and IP67
- Glass reinforced polyester
- Fitted with mild steel earth continuity plates
- Entries unplugged as standard
- External mounting feet



Part No.	Description
PL612	9 WDU 2-5 Terminals, 4 x M20 entries
PL615	14 WDU 2-5 Terminals, 4 x M20 entries
PL620	24 WDU 2-5 Terminals, Up to 2 x M32 entries each face
PL630	76 WDU 2-5 Terminals, Up to 2 x M50 entries each face

Other terminal types, contents and entry sizes available on request

### PL7 SERIES JUNCTION BOXES

II 2 GD EExe II, Zones 1 and 2, zones 21 and 22



Part No.	Description
PL712	Various terminal and entry options*
PL722	Various terminal and entry options*

\*Contact us for further information

- Ingress Protection to IP66, IP67
- Glass reinforced polyester
- Integral steel earth continuity plates
- Entries unplugged as standard
- External mounting feet
- Deluge tested



### S SERIES STAINLESS STEEL ENCLOSURES

Zones 1 and 2, zones 21 and 22



- Robust stainless steel construction
- Electroplated surface finish
- External mounting feet
- Padlocking facility
- Available in 9 different sizes
- Internal/external earth stud
- Various terminal content and sizes
- Various gland plate / entry options

### EX-PRESS PUSH IN STOPPING PLUG

II 2 GD EExe II, Zone 1 + 2 (Gas & Dusts)

**HAWKE**  
International



- Available in M20 size
- Suitable for gland plate thickness range of 2 - 3mm
- Min/max clearance hole size of 20 - 20.7mm
- Ingress Protection to IP66

### EZE STAINLESS STEEL ENCLOSURES

Zones 1 and 2, Zones 21 and 22, II 2 GD EExe II

**HAWKE**  
International

- 316L grade stainless steel construction
- Ingress Protection to IP66
- Top hinged cover
- Bottom gland plate entry
- Deluge protection
- Various terminal content and sizes
- Various gland plate / entry options
- External fixing points

Part No.	Description
EZE-22	Fixing centre size 248(W) x 260(H) x 183(D)mm
EZE-42	Fixing centre size 448(W) x 260(H) x 183(D)mm
EZE-62	Fixing centre size 648(W) x 260(H) x 183(D)mm



## Cable Management

### 501/453 UNIVERSAL GLANDS

II 2 GD EExd and EExe IIC, Zone 1 + 2



- Ingress Protection to IP66, IP67
- Standard material brass
- Provides armour clamping using one component for all armour/braid types W,X,Z
- Fully inspectable armour clamping
- Provides a deluge seal to prevent moisture ingress through to cable armour/braid
- Diaphragm inner seal gives better protection for cables with cold flow characteristics
- Provides a seal on the outer sheath of the cable

Part No.	Description
501/453/univ/OS	20mm Gland
501/453/univ/O	20mm Gland
501/453/univ/A	20mm Gland
501/453/univ/B	25mm Gland
501/453/univ/C	32mm Gland
501/453/univ/C2	40mm Gland
501/453/univ/D	50mm Gland
501/453/univ/E	63mm Gland
501/453/univ/F	75mm Gland

Alternative thread forms i.e. NPT, PG etc and materials available on request.



### 501/453/RAC REVERSIBLE ARMOUR CLAMP GLANDS

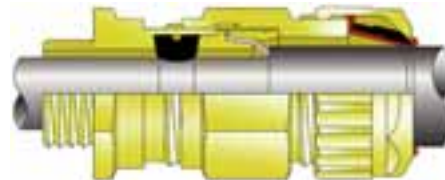
II 2 GD EExd and EExe IIC, Zone 1 + 2



Part No.	Description
501/453/RAC/OS	20mm Gland
501/453/ RAC /O	20mm Gland
501/453/ RAC /A	20mm Gland
501/453/ RAC /B	25mm Gland
501/453/ RAC /C	32mm Gland
501/453/ RAC /C2	40mm Gland
501/453/ RAC /D	50mm Gland
501/453/ RAC /E	63mm Gland
501/453/ RAC /F	75mm Gland

- Ingress Protection to IP66, IP67, IP68
- Standard material brass
- Provides armour clamping using one component for all armour/braid types W,X,Z
- Fully inspectable armour clamping
- Provides a seal on the inner sheath and outer sheath of the cable

Alternative thread forms i.e. NPT, PG etc and materials available on request



### ICG/653 UNIVERSAL BARRIER GLANDS

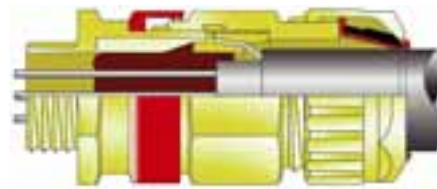
II 2 GD EExd and EExe IIC, Zone 1 + 2



- Ingress Protection to IP66, IP67
- Standard material brass
- Provides armour clamping using one component for all armour/braid types W,X,Z
- Fully inspectable armour clamping
- Provides a deluge seal to prevent moisture ingress through to the cable armour/braid
- Provides a compound seal around individual cable cores
- Provides inspection facility of compound through a transparent pot
- Provides a seal on the outer sheath of the cable

Part No.	Description
ICG/653/univ/OS	20mm Gland
ICG/653/univ/O	20mm Gland
ICG/653/univ/A	20mm Gland
ICG/653/univ/B	25mm Gland
ICG/653/univ/C	32mm Gland
ICG/653/univ/C2	40mm Gland
ICG/653/univ/D	50mm Gland
ICG/653/univ/E	63mm Gland

Alternative thread forms i.e. NPT, PG etc and materials available on request



### A501/421 UNARMoured CABLE GLANDS

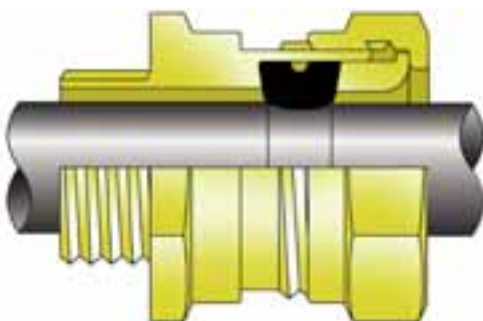
EExd and EExe, II 2 GD, Zone 1 + 2



- Ingress Protection to IP66
- Standard material brass
- For use with non-armoured cables

Part No.	Description
A501/421/OS	20mm Gland
A501/421/O	20mm Gland
A501/421/A	20mm Gland
A501/421/B	25mm Gland
A501/421/C	32mm Gland
A501/421/C2	40mm Gland
A501/421/D	50mm Gland
A501/421/E	63mm Gland
A501/421/F	75mm Gland

Alternative thread forms i.e. NPT, PG etc and materials available on request



## Cable Management

### HTS TRANSIT SYSTEM



What is a Cable Transit System?

A Transit System is a means to maintain the integrity of a firewall, bulkhead or deck through which cables, pipes and other services pass. The transit system will seal against and offer resistance to:

- Fire
- EMC
- Water
- Radiation
- Gas
- Chemicals
- Explosion
- Ultra Violet Light
- Smoke
- Vermin



Where would you use a transit system?

Wherever a wall or bulkhead is penetrated by cable or pipe, the occupants and integrity of the structure are exposed to risk from hazards such as fire and smoke, water ingress, toxic gases and attack by vermin.

Typical Applications

- Offshore Platforms
- Oil and Gas Refineries
- Floating Production Off-loading Vessels
- Nuclear Plants
- Ship Building
- Computer/Bank Installation
- Telecommunications
- Jet Engine Test Facilities
- National Defence Agencies
- Tunnel systems
- Water Treatment Plant
- Portable Buildings
- Chemical Plant
- Pharmaceutical Manufacturing
- Offshore Accommodation Modules

Why Use a Hawke Transit System?

- Increased Safety
- Total Inspectability
- Flexibility
- Speed of Assembly
- Cost effectiveness
- Quality and Certification

### MARINE FRAMES



#### The HMX Frame

For general use. A Hawke compression tool (Ref. 981) is required for use with all 'X' designated frames.



#### The HMFx Frame

Has a 60mm wide flange and is available in the same materials and finishes as HMX frames. For overall dimensions of HMFx frames add 120mm (allowance for flange) to those given for standard HMX frames.

#### The HMOX Frame

A removable end allows the frame to be installed around existing cables and pipes.

### CIVIL FRAMES



The HCX and HCOX range to suit installation in concrete/brick.

Various sizes and permutations available.

Please ask for further details



### ROUND TRANSIT FRAMES



- Certified for both civil and marine applications.
- May be used to seal existing cable and pipes.
- HRT0 – open version available in all sizes for applications where cables/pipes are already in position.
- Easily installed without the need for specialised personnel.
- Requires no special frame or tools for installation.
- Integral extraction facility enables cabling to be modified.

## Cable Management

### COMPRESSION SYSTEM



Part No.	Description
1642	Complete Compression System
1642A	Compression Plate Only
1642B	End Packing Assembly Only

### ACCESSORIES



Part No.	Description
981	Compression Tool
980	Pulling Device
967	Lubricant
966	Mastic

### STAYPLATES



Part No.	Description
931	Stainless steel
931P	Stainless Steel For pressure application in excess of 3.5 bar

### BACKING PLATE



Part No.	Description
TABP2	Size 2
TABP4	Size 4
TABP6	Size 6
TABP8	Size 8

### POLYSTYRENE MOULDS



Part No.	Description
965/2	Size 2
965/4	Size 4
965/6	Size 6
965/8	Size 8

Block Selection Table				
Module Dimension mm	Cable/Pipe Diameter		Block Colour Code	HF Zero Halogen Blocks
	Min mm	Max mm		
5	120 x 60 x 5 Packaging Strip*			HF50
10	120 x 60 x 10 Packaging Strip*			HF100
15	0			HF150
	3	5	Red	HF153
	5	7	White	HF155
	7	9	Blue	HF157
20	0			HF200
	3	6	Green	HF203
	6	9	Pink	HF206
	9	12	Brown	HF209
	11	14	Yellow	HF2011
	13	16	Gold	HF2013
30	0			HF300
	12	15	Red	HF3012
	15	18	White	HF3015
	18	21	Blue	HF3018
	21	24	Orange	HF3021
40	0			HF400
	12	15	Green	HF4012
	15	18	Pink	HF4015
	22	25	Red	HF4022
	25	28	White	HF4025
	28	31	Blue	HF4028
	31	34	Orange	HF4031
60	0			HF600
	31	34	Red	HF6031
	34	37	White	HF6034
	37	40	Blue	HF6037
	40	43	Orange	HF6040
	43	46	Purple	HF6043
	46	49	Yellow	HF6046
	49	52	Green	HF6049
	52	54	Pink	HF6052
90	0			HF900
	53	56	Red	HF9053
	56	59	White	HF9056
	59	62	Blue	HF9059
	62	65	Orange	HF9062
	65	68	Purple	HF9065
	68	71	Yellow	HF9068
120	0			HF1200
	72	75	Red	HF12072
	75	78	White	HF12075
	78	81	Blue	HF12078
	81	84	Orange	HF12081
	84	87	Purple	HF12084
	87	90	Yellow	HF12087
	90	93	Green	HF12090
	93	96	Pink	HF12093
	96	100	Brown	HF12096



\* Packing strips are supplied as solid strips or with strips precut or scored into individual blocks:  
 TA50 (1 solid block 120 x 60 x 5mm) TA100 (1 solid block 120 x 60 x 10mm)  
 TA50 x 24 (24 pieces 5 x 60 x 5mm) TA100 x 12 (1 block prescored x 12 pieces 10 x 60 x 10mm)

As a member of the Senate group you can access the expertise of EMS via your local Senate branch.

## Senate Branch Locations

### SCOTLAND

- 7 ABERDEEN AB16 6TX**  
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- 29 AIRDRIE ML6 9BG**  
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- F1 DUMBARTON G82 2RP**  
Tel: 01389 764200  
Fax: 01389 742752
- 1 DUNDEE DD2 3QN**  
Tel: 01382 819595  
Fax: 01382 832211
- 2 DUNFERMLINE KY11 2SL**  
Tel: 01383 413401  
Fax: 01383 417271
- 8 EDINBURGH EH11 3XX**  
Tel: 0131 443 8976  
Fax: 0131 455 7313
- 3 GLASGOW G51 3HZ**  
Tel: 0141 445 2411  
Fax: 0141 445 4346
- 4 GREENOCK PA15 4AX**  
Tel: 01475 723600  
Fax: 01475 727677
- 6 PAISLEY PA3 1QG**  
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- 9 BARROW LA14 5UG**  
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Fax: 01229 870228
- 11 BLACKPOOL FY1 3LP**  
Tel: 01253 626528  
Fax: 01253 752661
- 12 BRADFORD BD4 7NE**  
Tel: 01274 394446  
Fax: 01274 395431
- H3 BRADFORD - SUNBRIDGE BDS 0EQ**  
Tel: 01274 735329  
Fax: 01274 737539
- H4 DEESIDE - SUNBRIDGE CH5 2NY**  
Tel: 01244 280507  
Fax: 01244 280503
- 40 FLINT CH6 5UY**  
Tel: 01352 730011  
Fax: 01352 730808
- 14 GATESHEAD NE3 3DT**  
Tel: 0191 477 3961  
Fax: 0191 490 1163
- 15 HUDDERSFIELD HD2 1XT**  
Tel: 01484 511340  
Fax: 01484 511347
- 10 HULL HU8 7JQ**  
Tel: 01482 323447  
Fax: 01482 216810
- 16 KENDAL LA9 6LZ**  
Tel: 01539 740588  
Fax: 01539 740280
- 17 LEEDS LS12 6DN**  
Tel: 0113 243 5421  
Fax: 0113 242 5677
- F5 LOUTH LN11 0YB**  
Tel: 01507 600730  
Fax: 01507 606777
- 19 MANCHESTER M17 1SR**  
Tel: 0161 872 0409  
Fax: 0161 872 0343
- 20 MIDDLESBROUGH TS1 5JP**  
Tel: 01642 210351  
Fax: 01642 245484
- 54 MIDDLESBROUGH - EMS TS2 1RT**  
Tel: 01642 232090  
Fax: 01642 247694
- C9 PENRITH CA11 9BL**  
Tel: 01768 892424  
Fax: 01768 892191
- 21 PRESTON PR1 5DP**  
Tel: 01772 651191  
Fax: 01772 651226
- 22 SHEFFIELD S9 5EX**  
Tel: 0114 261 1027  
Fax: 0114 261 9310
- 49 SHREWSBURY SY1 2SY**  
Tel: 01743 353371  
Fax: 01743 271598

- F6 SKEGNESS PE25 3TB**  
Tel: 01754 611748  
Fax: 01754 611752
- 45 STOKE ST1 5NP**  
Tel: 01782 213914  
Fax: 01782 283502
- H1 STOKE - JOHN GODDEN ST1 5NP**  
Tel: 01782 204224  
Fax: 01782 283502
- 48 TELFORD TF1 7GX**  
Tel: 01952 605006  
Fax: 01952 605060
- 26 WHITEHAVEN CA28 8EA**  
Tel: 01946 61232  
Fax: 01946 64253
- 25 YORK YO30 4WP**  
Tel: 01904 693241  
Fax: 01904 692814

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- 63 ABINGDON OX14 1RL**  
Tel: 01235 533733  
Fax: 01235 522047
- 37 BIRMINGHAM B7 5ET**  
Tel: 0121 327 1100  
Fax: 0121 327 1573
- C4 BIRMINGHAM - SUNBRIDGE B7 5ET**  
Tel: 0121 327 1475  
Fax: 0121 328 7388
- H8 BROMSGROVE B60 3EX**  
Tel: 01527 558774  
Fax: 01527 558781
- 39 CARDIFF CF11 8QY**  
Tel: 029 2039 7815  
Fax: 029 2022 4258
- F2 CORBY NN17 4AU**  
Tel: 01536 201613  
Fax: 01536 402210
- C1 COVENTRY CV1 4DW**  
Tel: 024 7622 8141  
Fax: 024 7622 8151
- 64 DERBY DE24 8EH**  
Tel: 01332 755918  
Fax: 01332 757673
- A4 HIGH WYCOMBE HP13 6EQ**  
Tel: 01494 534923  
Fax: 01494 523914
- 67 LEICESTER LE4 7ST**  
Tel: 0116 266 3861  
Fax: 0116 261 0884
- F4 LEICESTER - EMS LE1 1QR**  
Tel: 0116 262 2588  
Fax: 0116 251 1429
- F7 LICHFIELD WS14 9UY**  
Tel: 01543 418814  
Fax: 01543 250219
- 42 MERTHYR TYDFIL CF48 4SR**  
Tel: 01685 384343  
Fax: 01685 376407
- 43 NEWPORT NP20 5NS**  
Tel: 01633 857070  
Fax: 01633 855875
- 76 NOTTINGHAM NG2 1AH**  
Tel: 0115 986 0111  
Fax: 0115 986 2841
- 74 SLOUGH SL1 4HB**  
Tel: 01753 525451  
Fax: 01753 574085
- 84 SWANSEA SA6 8JG**  
Tel: 01792 774002  
Fax: 01792 774153
- C6 TREFOREST CF37 5UA**  
Tel: 01443 843113  
Fax: 01443 843114
- 47 WALSALL WS2 7DH**  
Tel: 01922 710170  
Fax: 01922 710143
- F8 WOLVERHAMPTON WV10 6HH**  
Tel: 01902 710333  
Fax: 01902 710325

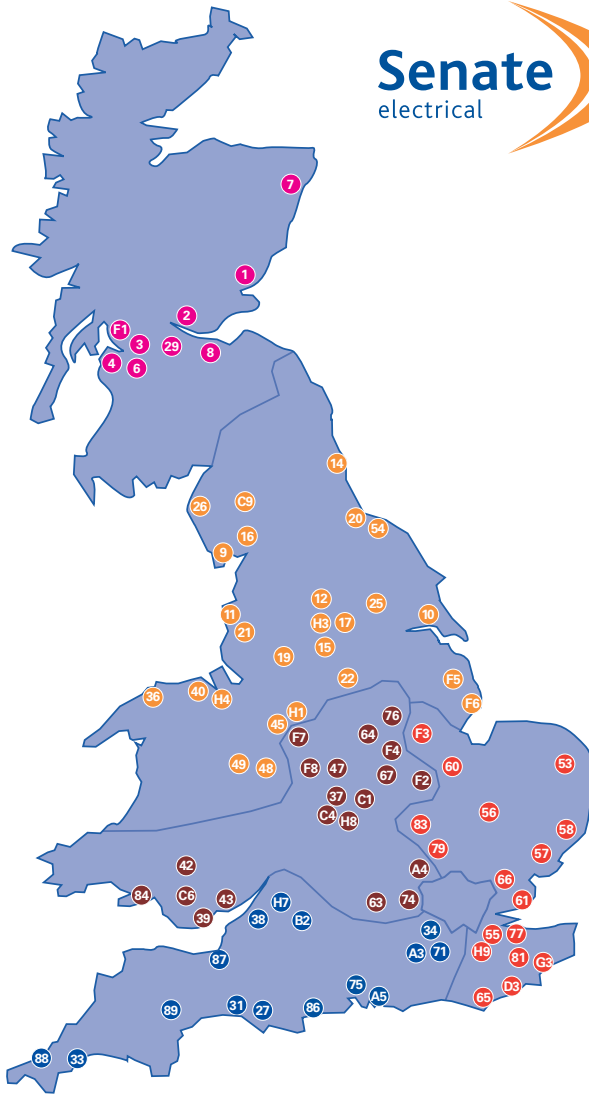
### EAST

- 81 ASHFORD TN24 8EP**  
Tel: 01233 631976  
Fax: 01233 632121
- 66 BRENTWOOD CM13 1TA**  
Tel: 01277 223481  
Fax: 01277 262814
- 56 CAMBRIDGE CB1 7EA**  
Tel: 01223 212603  
Fax: 01223 249136

- 57 COLCHESTER CO2 8HE**  
Tel: 01206 797333  
Fax: 01206 790919
- 65 EASTBOURNE BN23 6PU**  
Tel: 01323 509231  
Fax: 01323 500430
- G3 FOLKESTONE CT19 5FG**  
Tel: 01303 220904  
Fax: 01303 220904
- F3 GRANTHAM NG31 6HN**  
Tel: 01476 567377  
Fax: 01476 590640
- D3 HASTINGS TN37 7PJ**  
Tel: 01424 755833  
Fax: 01424 755426
- 58 IPSWICH IP3 0AB**  
Tel: 01473 253781  
Fax: 01473 233032
- 79 LUTON LU1 1TW**  
Tel: 01582 405764  
Fax: 01582 723445
- 59 MAIDSTONE ME15 6RQ**  
Tel: 01622 691250  
Fax: 01622 692283
- H9 MAIDSTONE - SUNBRIDGE ME15 6RQ**  
Tel: 01622 692266  
Fax: 01622 661203
- 83 MILTON KEYNES MK11 1JW**  
Tel: 01908 379601  
Fax: 01908 378736
- 53 NORWICH - EMS NR3 2BX**  
Tel: 01603 424385  
Fax: 01603 415472
- 60 PETERBOROUGH PE1 5YB**  
Tel: 01733 561237  
Fax: 01733 563286
- 77 SITTINGBOURNE ME10 2PD**  
Tel: 01795 439626  
Fax: 01795 439627
- 61 SOUTHEND-ON-SEA SS2 5RD**  
Tel: 01702 462955  
Fax: 01702 469579

### SOUTH WEST

- 86 BOURNEMOUTH BH12 3LN**  
Tel: 01202 739433  
Fax: 01202 732798
- 87 BRIDGWATER TA6 5JX**  
Tel: 01278 458276  
Fax: 01278 458287
- 31 BRIDPORT DT6 4RZ**  
Tel: 01308 424411  
Fax: 01308 456111
- 38 BRISTOL BS3 5SA**  
Tel: 0117 966 7081  
Fax: 0117 966 9865
- 88 CAMBORNE TR14 7TA**  
Tel: 01209 714441  
Fax: 01209 711185
- B2 CHIPPENHAM SN14 6LH**  
Tel: 01249 656127  
Fax: 01249 654122
- 27 DORCHESTER DT1 2PG**  
Tel: 01305 265955  
Fax: 01305 265957
- 75 EASTLEIGH SO50 4ZY**  
Tel: 023 8068 7768  
Fax: 023 8068 7769
- 89 EXETER EX2 8PE**  
Tel: 01392 434455  
Fax: 01392 420052
- A3 FARNHAM GU9 9PR**  
Tel: 01252 726100  
Fax: 01252 714687
- H7 GLOUCESTER GL4 35J**  
Tel: 01452 332382  
Fax: 01452 311496
- 71 GUILDFORD GU2 8YT**  
Tel: 01483 569261  
Fax: 01483 534740
- A5 PORTSMOUTH PO3 6FH**  
Tel: 023 9282 9021  
Fax: 023 9286 3557
- 33 ST. AUSTELL PL25 3JN**  
Tel: 01726 61772  
Fax: 01726 64266
- 34 WOLKING GU21 4PX**  
Tel: 01483 740101  
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### GREATER LONDON

- 72 CHESSINGTON KT9 1ST**  
Tel: 020 8397 9478  
Fax: 020 8397 4561
- 69 CHISWICK W4 5PZ**  
Tel: 020 8996 0304  
Fax: 020 8742 3860
- 51 CROYDON CR0 4RR**  
Tel: 020 8666 0409  
Fax: 020 8666 0408
- 52 EAST HAM E6 6LP**  
Tel: 020 7474 2622  
Fax: 020 7511 3645
- 68 FOOTSCRAY DA14 5AJ**  
Tel: 020 8302 0901  
Fax: 020 8302 4605
- B1 ISLINGTON N7 9AA**  
Tel: 020 7609 9941  
Fax: 020 7700 2143
- A6 REDHILL RH1 2LP**  
Tel: 01737 769055  
Fax: 01737 774209
- 28 STRATFORD E15 2PE**  
Tel: 020 8555 4653  
Fax: 020 8522 4173
- 50 SYDENHAM SE26 5BA**  
Tel: 020 8778 6042  
Fax: 020 8778 3307

