

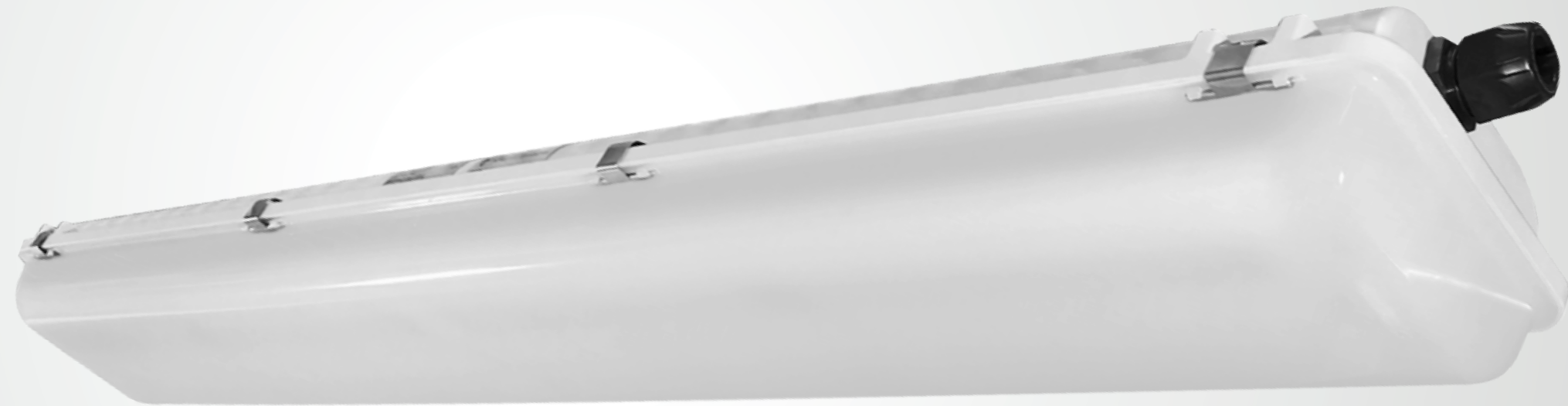
# PROVIDING SAFETY FOR INDUSTRY

## PrimeLine for Zone 1, 2 & 21, 22

Fully compliant, cost-effective alternative to premium global brands

## OptiLine for Zone 2 & 21, 22

Tested by an independent laboratory, fully certified (ATEX / IECEx)



### PrimeLine Emergency version with robust battery for sub-zero temperatures

- ▶ PrimeLine is one of the few battery-powered emergency luminaires designed for reliable operation (1.5 h / 3 h) at low ambient temperatures. Its optimized battery technology (NiCd, 4000 mAh) supports **both continuous operation and effective charging at -20°C.**



### PrimeLine Isolator switch for increased safety

- ▶ An integrated isolator switch **automatically disconnects the power supply when the diffuser is opened.** This enhances operational safety and facilitates safe maintenance and testing.

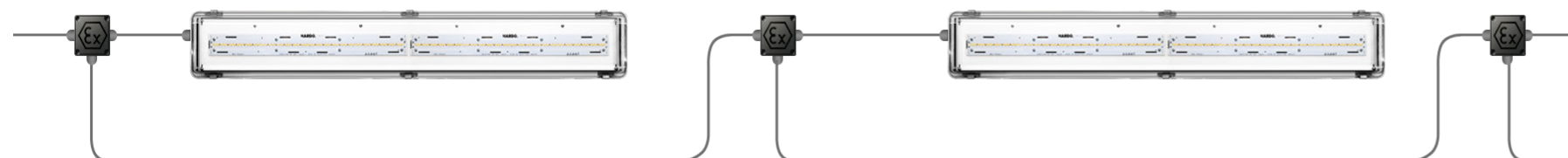
## Designed with installation and maintenance cost-effectiveness in mind



- ▶ Reduced use of power cables
- ▶ The luminaire functions as an Ex-rated junction box
- ▶ Flexible configuration of cable glands and terminals



- ▶ Higher installation costs
- ▶ Increased use of Ex-rated junction boxes
- ▶ Increased use of installation materials



## Ex lighting fittings

- ▶ High-performance LED lighting for hazardous areas

### PrimeLine & OptiLine

- ▶ **Operating temperature** – -40 °C to +55 °C (standard versions)
- ▶ **Luminous efficacy** – up to 181 lm/W (OL) & 135 lm/W (PL); light output up to 10342 lm (OL) & 8300 lm (PL)
- ▶ **Color temperature** – 4000 K (OL) & 4500 K (PL) (optional: 5000K or 6500K)
- ▶ **IP67 protection** – poured silicone gasket and stainless steel locking clips ensure long-lasting protection against dust and water ingress
- ▶ **Durability** – UV-stabilized reinforced polycarbonate diffuser and GRP housing offer high mechanical and chemical resistance indoors and
- ▶ **Versatility**
  - basic/emergency/central battery system
  - two lengths: 670 mm and 1276 mm
  - three diffusers: transparent/frosted/opal
- ▶ **Compatibility** – 100% fit with EATON's central battery

### TechLine

- ▶ High-performance linear LED lighting for industrial applications

With its rugged construction and high ingress protection rating, TechLine is engineered for reliable performance in areas exposed to dust, moisture or chemicals. The luminaire offers outstanding lighting performance – up to 160 lm/W and high-quality light (CRI > 80), with luminous flux ranging from 2600 to over 10,400 lm. TechLine comes in three sizes, a high-bay version (7.5 – 12 m), DALI control, motion sensor, daylight harvesting, and optional PoE.



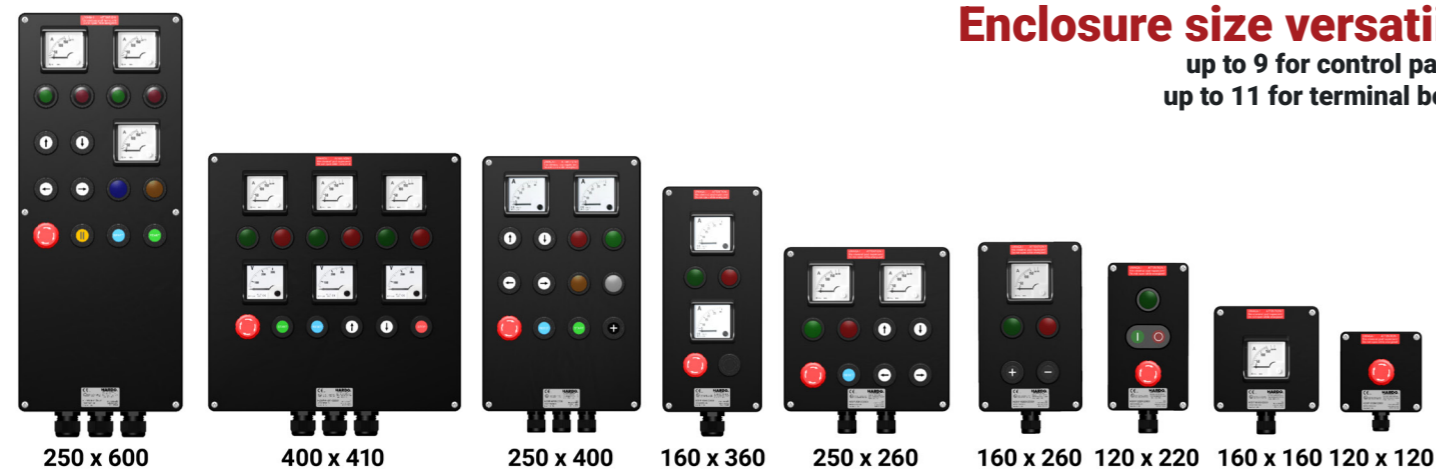
# Engineered-To-Order control panels and terminal boxes for Zone 1, 2 & 21, 22



3 high-performance materials: GRP, aluminum, and stainless steel

## Design features

- ▶ **Temperature ranges** from -50 °C to +60 °C (up to +95 °C in high-temperature version)
- ▶ **High enclosure IP level** – IP65/IP66 for GRP, IP66 for stainless steel and aluminum
- ▶ **Durable** – AISI 316L screws, silicone gasket, optional hinged cover.
- ▶ **Highly customizable** – extensive gland and terminal configurations.



**Enclosure size versatility**  
up to 9 for control panels  
up to 11 for terminal boxes

250 x 600    400 x 410    250 x 400    160 x 360    250 x 260    160 x 260    120 x 220    160 x 160    120 x 120



## Ex switches

- ▶ Emergency stop switches
- ▶ Momentary switches
- ▶ Control switches (16A, up to 3 positions)
- ▶ Control switches (25A, up to 12 positions)
- ▶ Main, isolation and safety switches (up to 250 A)
- ▶ Motor switches



## Ex glands & accessories

- ▶ Steel glands for unarmoured cables
- ▶ Steel glands for armoured/screened cables
- ▶ Adapters
- ▶ Reducers
- ▶ Plugs

## Design features

Ex switches for Zone 1, 2 & 21, 22

- ▶ **High safety and durability as standard** – IP66-rated enclosures, silver alloy contacts, robust mechanical design, and reliable switching mechanisms ensure safe operation in demanding industrial environments.
- ▶ **Flexible, modular configurations** – wide range of current and voltage ratings, multiple contact options (NO/NC, PE, N), and expandability with accessories enable precise matching to application needs.
- ▶ **Good value for money** – fully compliant, cost-effective alternative to premium brands without compromising performance.

## Design features

Ex glands for Zone 1, 2 & 21, 22

- ▶ **High durability** – made from brass, nickel-plated brass, or 316L stainless steel
- ▶ **Suitable for harsh environments** – wide temperature range: -55°C to +160°C with IP66/IP68 sealing
- ▶ **Versatility** – for unarmoured and armoured cables, with sizes up to M90/3.5"
- ▶ **Flexible installation** – adapters and reducers available in metric & NPT combinations

# Ex sockets and plugs

- Current 16A; 2P/3P/4P/5P
- Current 32A; 3P/4P/5P
- Current 63A; 4P/5P
- Current 125A; 4P/5P

## Design features

Ex sockets and plugs for Zone 1, 2 & 21, 22

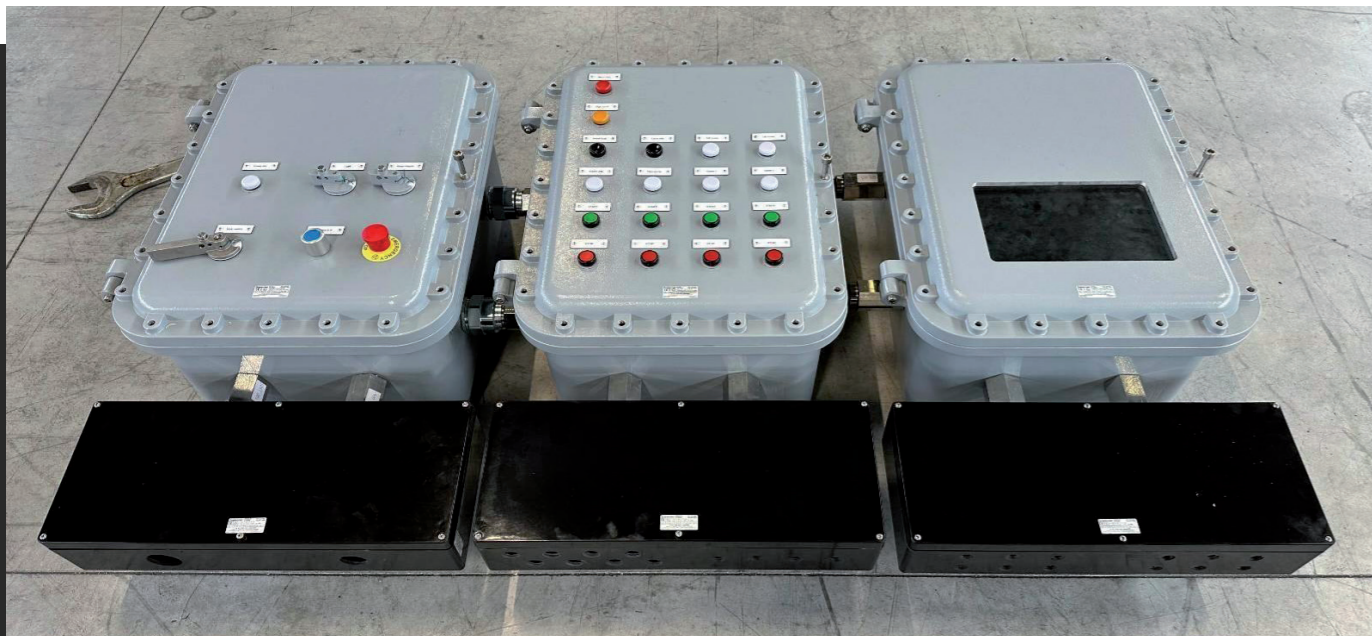
- ▶ **Reliable and cost-effective** - alternative to the Eaton GHG 635 series
- ▶ **Color-coded** – different housing colors enable quick and safe identification of operating voltage
- ▶ **Integrated internal earthing** ensures continuous protection against electric shock
- ▶ **Padlock eye** enables additional protection against unauthorized access or accidental operation
- ▶ **Integrated switch** built in, with auxilliary contact in 125A version



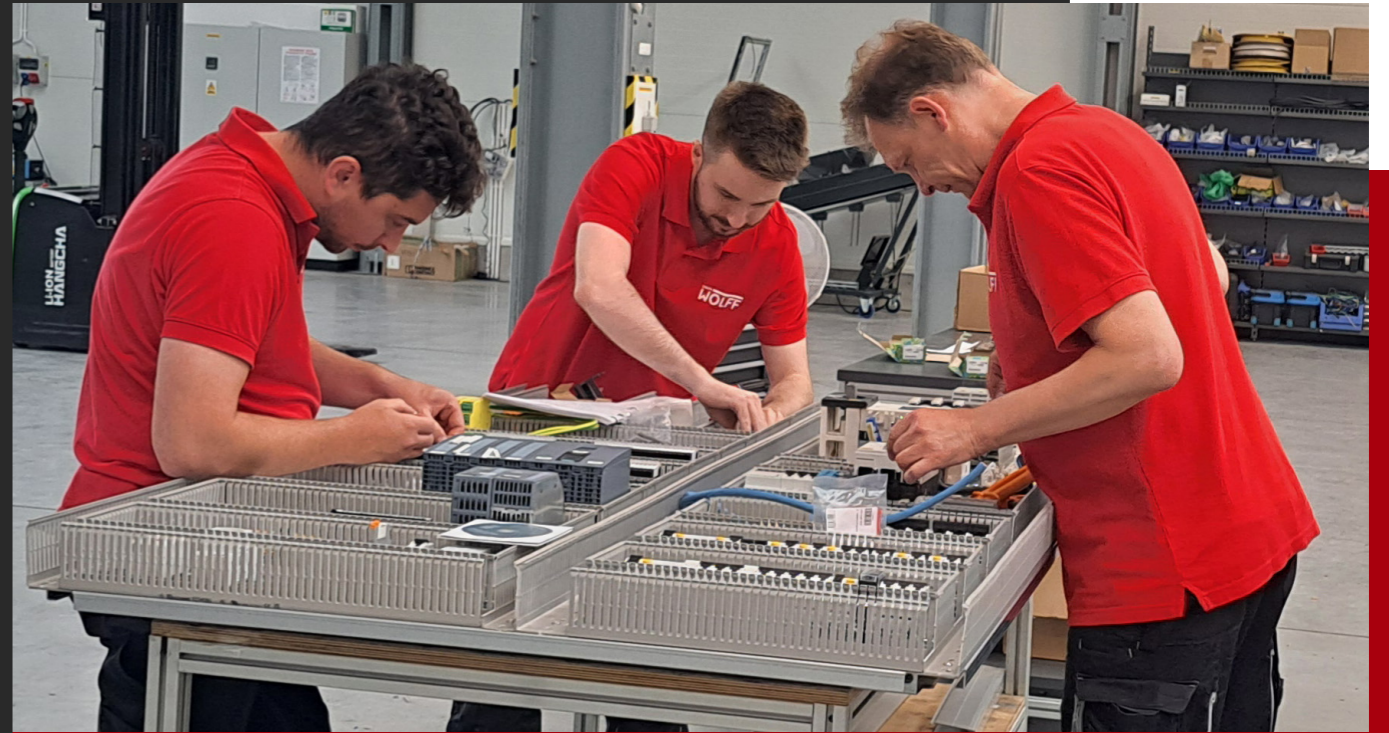
# Ex d enclosures

## Flameproof housing for gas & dust explosion zones

An Ex d enclosure allows the use of standard industrial components without certifying the entire device as Ex. The equipment layout and component arrangement, including the division into Ex d and Ex e parts, are designed based on real operating conditions and temperature distribution inside the enclosure. We deliver the project end to end, ensuring full compliance with ATEX and IEC 60079.



Our production facility is QAN/QAR certified



## Designed by practitioners, for practitioners

Drawing from over 30 years of experience of GRUPA WOLFF, we are constantly working on expanding our products portfolio of HARDO explosion-proof electrical equipment and lighting. Our goal is to supply our customers with a broad portfolio of high quality products, at the best possible value-to-price ratio.

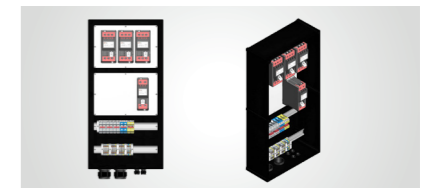
## Upcoming products



**Ex polyamide junction boxes**  
Cost up to 20% lower than GRP versions



**Ex floodlights and high bays**  
Reliable quality at a reasonable price



**Ex distribution boards**  
Competitive price and short delivery times

WEB: [www.hardo.com](http://www.hardo.com)  
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**HARDO**  
BY GRUPA WOLFF