

The background is a solid orange color with a subtle, organic texture. A white square frame is centered on the page, with a horizontal line extending to the left and a vertical line extending upwards from its top-left corner.

# **HAZARDOUS LIGHTING**

## BULKHEAD



### NGBP Exn – LED

The NGBP Exn - LED luminaire range is a high-performance industrial luminaire for use in hazardous Zone 2, 21 & 22 locations. The luminaire is designed to replace the conventional HID lamps which make it energy efficient with high performance, low maintenance and longer life span. It's suitable for wall, ceiling, bracket and pole mounting. The NGBP Exn - LED continues the proud heritage of NORDLAND LIGHTING's quality standards.

**Applications:** Industrial / Hazardous / Corrosive

**Housing:** Manufactured from Lm6 high pressure die cast aluminium, with a heavy duty toughened smooth clear glass refractor, fitted into a die cast aluminium frame.

**Frame:** The frame is fitted with 6 spring stainless steel fingertip latches which hold the frame in position.

**Gasket:** Round silicone sponge gasket retainer within a recess in the cast aluminium base provides a seal for outdoor use.

**Control Gear:** Constant Current LED driver 220V/240V, 50/60Hz

**Screws:** All external screws are made of stainless steel.

**Cable Entry:** Single compression gland for cable diameter 8-11mm.

**Mountings:** The body incorporates many choices of options including: flood, wall, ceiling brackets, angled wall brackets, anti-vibration brackets, pole mounting brackets and angled post top brackets.

**LED:** The bulkhead is designed to take up to 9 x LED strips.

**Rated Lifetime:** 50 000 Hr. (L70/B10)

**Warranty:** 5 Years

## FLOOD



### BLD150 LED Floodlight - Zone 1, 2, 21 & 22

The BLD150 is a high performance LED indoor and outdoor floodlight luminaire designed and certified for Zone 1, 2, 21 and 22 hazardous areas. The luminaire is designed to replace the conventional HID lamp technology which makes it energy efficient with high performance, low maintenance and long life span. It's suitable for wall, ceiling and bracket mounting. The BLD150 continues the proud heritage of NORDLAND LIGHTING's Ex safety standards whilst utilizing the latest LED technology.

**Applications:** Zone 1, 2, 21 & 22 Hazardous locations. Oil Refineries, Chemical and Petrochemical plants and Fuel Depots.

**Body:** Manufactured from Copper-free content aluminium alloy body with grey epoxy powder coating. Includes a stainless steel wire guard. All external screws are stainless steel.

**Lens:** Shock & Temperature resistant borosilicate glass.

**Gasket:** Acid/Hydrocarbon resistant silicone gasket.

**Control Gear:** Multi-protection constant current LED driver

with short-circuit and over voltage protection. AC/DC 90-305V, 50/60Hz

**Cable Entry:** Comes standard with an M25 x 1.5 thread hole.

**Mounting:** Supplied with a stainless steel stirrup which allows for various mounting options.

**Emergency Mode:** Only available in the 10W, 20W & 40W luminaire. 60min Emergency backup duration.

**Warranty:** 5 Years

## HIGHBAY



### HX1 - LED High Bay

The HX1 is a high performance LED high bay luminaire, designed and certified for Zone 1, 2, 21 and 22 hazardous areas. The luminaire is designed to replace the conventional HID lamp technology which makes it energy efficient with high performance, low maintenance and long life span. It's suitable for wall, ceiling, pendant, pole and bracket mounting. The HX1 continues the proud heritage of NORDLAND LIGHTING's Ex safety standards whilst utilizing the latest LED technology.

**Applications:** Zone 1, 2, 21 & 22 Hazardous locations. Oil Refineries, Chemical and Petrochemical plants and Fuel Depots.

**Body:** Manufactured from Copper-free content aluminium alloy body with grey epoxy powder coating. All external screws are stainless steel.

**Lens:** Shock & Temperature resistant borosilicate glass.

**Gasket:** Acid/Hydrocarbon resistant silicone gasket.

**Control Gear:** Multi-protection constant current LED driver

with short-circuit and over voltage protection. AC/DC 90-305V, 50/60Hz

**Cable Entry:** Comes standard with an M25 x 1.5 thread hole.

**Mounting:** Ceiling, Pendant, Pole, Bracket and Wall Mount.

**Emergency Mode:** Only available in the 20W, 30W & 40W luminaire. 90min Emergency backup duration.

**Warranty:** 5 Years

## LINEAR



### N60LED-Ex

The N60LED-Ex linear luminaire range uses specially designed LED light sources and is paired with Ex certified LED drivers. The luminaire is designed to replace the conventional fluorescent lamps which makes it energy efficient with high performance, low maintenance and long life span. It's suitable for wall, ceiling, bracket and pole mounting. The N60LED-Ex continues the proud heritage of NORDLAND LIGHTING's Ex safety standards whilst utilizing the latest LED technology.

**Applications:** Zone 1, 2, 21 & 22 Hazardous locations, and highly corrosive areas.

**Body:** Manufactured from Stainless steel grade 304. Marine grade 316 available on special order. The single piece deep drawn body may not be drilled on site.

**Clips:** Double acting stainless steel with M4 socket head screws on outer clips.

**Lens:** 4mm thick clear tempered plate glass.

**Gasket:** Extruded silicone one piece gasket.

**Lens Frame:** Pressed from a single piece stainless steel sheet without joining welds and with extra wide ends for increased rigidity.

**Frame Suspension:** The lens frame is suspended on two points along one side of the body to allow the glass frame to swing open during servicing.

**Control Gear:** Aluminium gear tray carries the LED driver and LED strips. Two cords allow the gear tray to be suspended from the body during installation and service.

**Cable Entry:** Threaded 20 mm entry provided for a gland via a special welded insert boss is positioned about 60mm from the mounting surface to facilitate installation. Corrosion resistant glands are recommended for use with stainless steel light fittings. Single gland entry standard, twin gland entry available as option.

**Mounting:** 8mm threaded nut welded into the rear mounting brackets allows the luminaire to be mounted using either brackets, or pole clamps.

**Wire Guard:** A stainless steel wire guard is available as an optional extra on the 4ft version only.

**Warranty:** 5 Years



### N50-Exn LED 600/1200

The N50-Exn LED linear luminaire range is a high-performance LED industrial stainless steel luminaire and is certified for use in Zone 2, 21 and 22 hazardous environments. The luminaire is designed to replace the conventional fluorescent lamps which make it energy efficient with high performance, low maintenance and longer life span. It's suitable for wall, ceiling, bracket and pole mounting. The N50-Exn LED continues the proud heritage of NORDLAND LIGHTING's Ex safety standards whilst utilizing the latest LED technology.

**Applications:** Zone 2, 21 & 22 Hazardous locations, and highly corrosive areas.

**Body:** Manufactured from Stainless steel grade 304. Marine grade 316 available on special order. The single piece deep drawn body may not be drilled on site.

**Clips:** Double acting stainless steel clips with M4 socket head screws on outer clips.

**Lens:** 4mm thick clear tempered plate glass.

**Gasket:** Extruded silicone one piece gasket.

**Lens Frame:** Pressed from a single piece stainless steel sheet without joining welds and with extra wide ends for increased rigidity.

**Frame Suspension:** The lens frame is suspended on two points along one side of the body to allow the glass frame to swing open during servicing.

**Control Gear:** Aluminium gear tray carries the LED driver and LED strips, and is also designed to act as a reflector. Two cords allow the gear tray to be suspended from the body during installation and service.

**Cable Entry:** Threaded 20 mm entry provided for a gland via a special welded insert boss is positioned about 60mm from the mounting surface to facilitate installation. Corrosion resistant glands are recommended for use with stainless steel light fittings. Single gland entry standard.

**Mounting:** 8mm threaded nut welded into the rear mounting brackets allows the luminaire to be mounted using either brackets, or pole clamps.

**Wire Guard:** A stainless steel wire guard is available as an optional extra on the 4ft version only.

**Warranty:** 5 Years



### NLED-Ex

The NLED-Ex linear luminaire range uses specially designed LED light sources and is paired with Ex certified LED drivers. The luminaire is designed to replace the conventional fluorescent lamps which makes it energy efficient with high performance, low maintenance and long life span. It's suitable for wall, ceiling, bracket and pole mounting. The NLED-Ex continues the proud heritage of NORDLAND LIGHTING's Ex safety standards whilst utilizing the latest LED technology.

**Applications:** Zone 1, 2, 21 & 22 Hazardous locations.

**Body:** Manufactured from GRP Glass Fibre reinforced polyester, by means of a compression moulded process.

**Diffuser:** Available with a clear or frosted polycarbonate diffuser.

**Gasket:** Continuous neoprene gasket insures IP66 seal between the body and diffuser.

**Control Gear:** Aluminium gear tray carries the LED driver and LED strips. Two cords allow the gear tray to be suspended from the body during installation and service.

**Cable Entry:** Comes standard with an Ex e compression gland. Cable diameter 6 – 12 mm.

Also available with a No 1/0 gland for armoured cable. Incoming terminal size max 2x4 mm<sup>2</sup>.

**Mounting:** Supplied with two 8mm body inserts in rear of the luminaire. Suitable for wall / ceiling brackets & pole clamps. Supplied with M8 hooks as standard.

**Warranty:** 5 Years

## LINEAR CONT.



### JBP - LED / JBP - LS

The JBP - LED and JBP - LS linear luminaire range is a high-performance industrial luminaire for use in hazardous Zone 2, 21 & 22 locations. The luminaire is designed to replace the conventional fluorescent lamps which makes it energy efficient with high performance, low maintenance and longer life span. It's suitable for wall, ceiling, bracket and pole mounting. The JBP - LED and JBP - LS continues the proud heritage of NORDLAND LIGHTING's quality standards.

**Applications:** Zone 2, 21 & 22 hazardous areas.

**Body:** Manufactured from DMC, compression moulded glass fibre reinforced polyester.

**Clips:** Double acting stainless steel clips.

**Lens:** Injection moulded clear polycarbonate lens with linear internal prisms. JBP-LS supplied with frosted polycarbonate lens.

**Gasket:** Silicone sponge gasket.

**Control Gear:** Aluminium gear tray carries the LED driver and LED strips, and also acts as a reflector. Two cords allow the gear tray to be suspended from the body during installation and

service.

**Cable Entry:** The Body has two 20mm entries. One is plugged and the other is fitted with an Ex n compression gland.

**Mounting:** Brass body inserts allows for hook, wall/ceiling brackets or pole clamps to be used.

**Ambient Temperature Rating:** -20°C - +40°C

**Ingress Protection Grade:** IP66

**Emergency Mode:** Emergency option available on request for JBP-LED Zone 2 version only.

Photometric files available on request.

**Warranty:** 5 Year



### HL1 - LED linear

The HL1 is a high performance LED linear luminaire, designed and certified for Zone 2, 21 and 22 hazardous areas. The luminaire is designed to replace the conventional fluorescent lamp technology which makes it energy efficient with high performance, low maintenance and long life span. It's suitable for wall, ceiling, pendant and pole mounting. The HL1 continues the proud heritage of NORDLAND LIGHTING's Ex safety standards whilst utilizing the latest LED technology.

**Applications:** Zone 2, 21 & 22 Hazardous locations. Oil Refineries, Chemical and Petrochemical plants and Fuel Depots.

**Body:** Manufactured from Copper-free content aluminium alloy body with grey epoxy powder coating. All external screws are stainless steel.

**Diffuser:** Manufactured from impact and UV resistant polycarbonate.

**Gasket:** Acid/Hydrocarbon resistant silicone gasket.

**Control Gear:** Multi-protection constant current LED driver with short-circuit and over voltage protection. AC 90-305V, 50/60Hz

**Cable Entry:** Comes standard with a M25 x 1.5 thread hole.

**Mounting:** Ceiling, Pendant, Pole and Wall Mount.

**Emergency:** Emergency options available on request.

**Warranty:** 5 Years

## PENDANT



### HA1 - LED Pendant

The HA1 is a high performance LED pendant luminaire, designed and certified for Zone 1, 2, 21 and 22 hazardous areas. The luminaire is designed to replace the conventional HID lamp technology which makes it energy efficient with high performance, low maintenance and long life span. It's suitable for wall, ceiling, pendant and pole mounting. The HA1 continues the proud heritage of NORDLAND LIGHTING's Ex safety standards whilst utilizing the latest LED technology.

**Applications:** Zone 1, 2, 21 & 22 Hazardous locations. Oil Refineries, Chemical and Petrochemical plants and Fuel Depots.

**Body:** Manufactured from Copper-free content aluminium alloy body with grey epoxy powder coating. Wire guard and all external screws are stainless steel.

**Lens:** Shock & Temperature resistant borosilicate glass.

**Gasket:** Acid/Hydrocarbon resistant silicone gasket.

**Control Gear:** Multi-protection constant current LED driver with short-circuit and over voltage protection. AC 100-277V, 50/60Hz

**Cable Entry:** Comes standard with an M25 x 1.5 thread hole.

**Mounting:** Ceiling, Pendant, Pole and Wall Mount.

**Warranty:** 5 Years

Available on request.



## SENSOR



### NMS 1200 - Exn

The **NMS 1200 - Exn** Microwave Sensor is an active pre-set motion detector. The Sensor emits high frequency electro-magnetic wave (5.8GHz) and receives the echo from movements in the detection zone. An internal micro-processor then triggers and connects the load to the "switch light ON" command. Detection is possible through doors, glass panes or thin walls. The Microwave Sensor is suitable for use in Zone 2 indoor and outdoor classified areas. The NMS 1200 - Exn continues the proud heritage of NORDLAND LIGHTING's Ex safety standards whilst utilizing the latest technology.

**Applications:** Zone 2 Hazardous locations, including industrial, commercial and warehouse application.

**Body:** The housing is a CCG Ex housing which is made of impact, corrosion and UV resistant glass reinforced polyester compound.

**Gasket/Seals:** Gasket consists of Nitrile rubber and EPDM

seals.

**Cable Entry:** The unit is supplied with 2 x M20 Exe cable glands with other entries blanked off by Exe approved plugs.

**Mounting:** 4 x M10 slot holes are provided for mounting.

**Warranty:** 1 Year

### What is a Hazardous (Ex) Zone?

A hazardous zone is an environment where explosive gasses or dusts are present in concentrations that could ignite and cause fires and/or explosions.

### What zones are there?

A hazardous zone is classified under 1 of 6 types of Zones. Zone 0, 1 or 2 for explosive gas atmospheres and Zone 20, 21 or 22 for explosive dust atmospheres.

### How is the Zone classified?

Zone 0 is an area which has a constant/permanent explosive gas atmosphere (Think inside a petrol tank)

Zone 1 is an area which under normal operating conditions an explosive gas atmosphere is present (Think someone uses a container to hourly/daily pour diesel from the tank above)

Zone 2 is an area which under abnormal operating conditions an explosive gas atmosphere is present (Think someone transfers and spills diesel from the container mentioned above)

Zone 20 is an area where explosive conductive dusts are present (Electrically conductive dusts, such as powdered aluminium or magnesium)

Zone 21 is an area where explosive non-conductive dusts are present (Non-conductive dusts, such as Sugar or Flour)

Zone 22 is an area where combustible flying's are present (such as textiles, cotton and wood cutting)

### Risk of hazardous areas

Loss of human life

Massive damage to infrastructure due to Fire/ Explosions

### Examples of Hazardous Areas:

Zone 0	Underground Mines at the rockface, Inside a fuel tanker
Zone 1	Spray booths, Tank vents, Tank Flanges, Sources of Gas release
Zone 2	Outdoor, ventilated areas such as petrochemical plants, some food industries
Zone 20	Inside a steel plant where conductive metals are a by product
Zone 21	Sugar refineries, Flour mills
Zone 22	Wood mills, Cotton production.

### Zoned areas of interest:

Any premises that uses vapors/chemicals indoors	Generator rooms
Battery banks indoors (Hydrogen gas)	Laboratories
Certain wood shops/mills	Manufacture of chemicals
Chemical Stores	Manufacturer of any flammable products (e.g. Paint, benzine, thinners, polish, printing ink)
Clothing factories	Material and carpet manufacturers and carpet manufacturers
Distilleries	Petrochemical plants
Engine compartment on a vessel	Pharmaceutical manufacturers
Food industry (e.g. bakeries, cooking oil, Spray & cook)	Refineries
Fuel stations and depots	Spray booths
Gas storage or refilling outlets	