



Ex-products

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Ex-products

As a traditional supplier of equipment for ships, KARL DOSE has always carried a basic range of products for particularly hazardous areas. Our luminaires and floodlights have at least IP 56 protection class and are approved according to the current ATEX directives. Here you can also find our widely used ACAPULCO tank truck light, which has now been converted to LED like many other products.





PORT SAID 504 LED

Particularly robust and with a protective grid, our PORT SAID is designed for the toughest conditions on high seas.

- + Robust, thanks to brass housing and shockproof grid
- + Applicable in zone 1 und 2
- + Highest possible temperature class
- + Available in 2 different Ex protection classes

Technical Data

Ex protection class	Ex II 2 G Ex db eb IIC T6 Gb, Ex db eb IIB+H2 T6 Gb
Certificate	BVS 20 ATEX E 086 X
Material and color	Brass housing and cover powdercoated in RAL 9016 (special ATEX coating) with diffuse glass cover
IP protection class	IP 56
Weight	Approx 4,12 kg
Environmental temperature	-20°C to +40°C
Input voltage	230 V AC and 115 V AC at 50/60 Hz, 24 V DC
Wattage	Max. 10 W
Luminous flux	Approx. 900 lm
CCT (color)	5,700 K
Beam angle	180°
Dimensions	H217xB150xT160

Options

Further LED colors

Further color temperatures

With cable

Ranges and luminous flux were measured or calculated under laboratory conditions.
The actual values depend on environmental factors such as rain or fog.

Ex Warning Light

ACAPULCO LED



ACAPULCO LED

The ACAPULCO, the smallest of our Ex Lights, is usually used as a tank truck light.

- + Compact design and very robust, thanks to brass housing and shockproof grid
- + Applicable in zone 1 and 2
- + Highest possible temperature class
- + Different light colors
- + Suitable as a ceiling light

Technical Data

Ex protection class	II 2 G Ex d e IIB Gb T6
Certificate	PTB 14 ATEX 1007
Material and color	Brass housing and cover with clear glass cover
IP protection class	IP 56
Weight	Approx. 1.9 kg
Environmental temperature	-40°C to +60°C
Input voltage	24 V Dc, 12 V DC
Wattage	Max. 2 W
Luminous flux	120 lm
Beam angle	5,600 k
Dimensions	H150xW120xD160 (mm)

Options

Further LED colors

Further color temperatures

With cable

Polished products available at extra cost.

Ranges and luminous flux were measured or calculated under laboratory conditions.

The actual values depend on environmental factors such as rain or fog.



SYDNEY 4 LED

The compact SYDNEY floodlight has a modular design and as a floodlight it complements our range for hazardous areas.

- + Environmental temperature from -50°C to +50°C
- + Wide range of light outputs from 5,400 lm to 32,400 lm
- + Modular design
- + Easy installation and maintenance thanks to Ex-e housing for drivers and terminals

Technical Data

Ex protection class	II 2 G Ex db eb op is q IIC T4 Gb
Certificate	BVS 17 ATEX E 013 X, IECEx BVS 17.0004 X
Material and color	Housing: corrosion-resistant aluminum (grey), brackets: stainless steel (bright), glass: hardened clear glass
IP protection class	IP 66/67
Environmental temperature	-50°C bis +55°C
Input voltage	230 V AC und 115 V DC bei 50/ 60, 110 V DC, 220 V DC
Luminous flux	Ca. 5.400 lm / Modul, max. 32.400 lm
CCT (color)	5,700 K
Beam angle	30°, 120°
Replacement for	HAMBURG with conventional lamps

Options

[More color temperatures](#)[Diffused glass](#)[Asymmetrical beam angle](#)

Ranges and luminous flux were measured or calculated under laboratory conditions.
The actual values depend on environmental factors such as rain or fog.

Ex Floodlight

SYDNEY LED



SYDNEY 1 LED

Wattage	Max. 49 W
Luminous flux	Approx. 5,400 lm
Weight	Approx. 9.9 kg
Dimensions	Hx265xW343xD255 (mm)



SYDNEY 2 LED

Wattage	Max. 98 W
Luminous flux	Ca. 10.800 lm
Weight	Ca. 14,4 kg
Dimensions	H303xB502xT259 (mm)



SYDNEY 3 LED

Wattage	Max. 147 W
Luminous flux	Approx. 16,200 lm
Weight	Approx. 24.3 kg
Dimensions	H465xW607xD325 (mm)



SYDNEY 4 LED

Wattage	Max. 196 W
Luminous flux	Approx. 21,600 lm
Weight	Ca. 28.7 kg
Dimensions	H465xW607xD325 (mm)



SYDNEY 5 LED

Wattage	Max. 245 W
Luminous flux	Approx. 21,600 lm
Weight	Approx. 38.5 kg
Dimensions	H465xW866xD328 (mm)



SYDNEY 6 LED

Wattage	Max. 294 W
Luminous flux	Approx. 32,400 lm
Weight	Approx. 41.1 kg
Dimensions	H465xW866xD328 (mm)

Ranges and luminous flux were measured or calculated under laboratory conditions.
The actual values depend on environmental factors such as rain or fog.



ROTTERDAM LED

As an Ex linear luminaire, the ROTTERDAM has proven itself to our customers over the years as a reliable light fixture.

- + Certified according to ATEX and IECEx
- + Lifetime of up to 110,000 hours
- + Different light colors
- + LED replacement kit available for Rotterdam with conventional lamps
- + Applicable in zones 1 and 2

Technical Data

Ex protection class	II 2 G Ex db eb mb op is IIC T4 Gb, II 2D Ex tb IIIC T80 °C Db IP 66	
Certificate	BVS 09 ATEX E 034, IECEx BVS 09.0033	
Material and color	Glass fiber reinforced polyester in RAL 7035 with clear polycarbonate cover	
IP protection class	IP 66	
Environmental temperature	-25°C to +50°C	
Input voltage	230 V AC 50/60Hz, 220V DC	
CCT (color)	4,000 K, 5,700 K	
Beam angle	120°	
Replacement for	ROTTERDAM with conventional light sources	
	ROTTERDAM E400	ROTTERDAM 800
Wattage	Max. 29 W	Max. 57 W
Light flux	Max. 2,700 lm	Max. 5,380 lm
Dimensions	H130xW188xD760 (mm)	H130xW188xD1360 (mm)

Optionen

As an emergency light

With cable

Diffuse coverage

Ranges and luminous flux were measured or calculated under laboratory conditions.
The actual values depend on environmental factors such as rain or fog.

Ex Battery room light

NEPTUN II LED



NEPTUN II LED

Our NEPTUN II battery room light impresses with its compact shape which is designed for narrow spaces in submarines. The innovative LED technology enables a homogeneous light pattern and optimum heat management.

- + Compact flat design, for narrow spaces
- + Certified according to ATEX and IECEx
- + Meets shock and vibration requirements according to VG
- + Applicable in zones 1 and 2
- + Long lifetime thanks to excellent heat management

Technical Data

Ex protection class	II 2G Ex db eb IIC T6
Certificate	ATEX: BVS 21 ATEX E 084 X, IECEx: BVS 21.0087X
Material and color	Housing made of seawater-resistant aluminium, powder-coated (RAL color by arrangement)
IP protection class	IP 56
Weight	2.3 kg
Environmental temperature	-20°C to 50°C
Input voltage	230 V AC and 115 V AC at 50/60 Hz, 24 V DC
Wattage	Max. 15 W
Light flux	Approx. 1,878 lm
CCT (color)	5,300 K
Beam angle	140°
Dimensions	H88xW216xD130

Options

- With cable
- Other housing material

Ranges and luminous flux were measured or calculated under laboratory conditions.
The actual values depend on environmental factors such as rain or fog.



NAGOYA EX LED

As a mobile working light for hazardous areas, the NAGOYA provides safe and secure light in delicate areas.

- + Applicable in zones 1,2,21,22
- + For indoor and outdoor use
- + 360° illumination
- + High light intensity without glare

Technical Data

Ex protection class	II 2G Ex db op is IIC T6 Gb; II 2D Ex tb op is IIIC T85°C Db
Certificate	EXA 16 ATEX 0069X, IECEx EXA 18.0006X
Material and color	Powdercoated aluminum alloy (black) with diffused glass
IP protection class	IP 66, 67
Weight	Approx. 2.3 kg
Environmental temperature	-40°C to +45°C
Input voltage	230 V AC, 110 V AC and 42 V AC at 50/60Hz
Light flux	Max. 3,500 lm
CCT (color)	5,000 K
Beam angle	360°
Dimensions	H268xØ110 (mm)

Options

Further color temperatures

With mounting brackets

With cable

Ranges and luminous flux were measured or calculated under laboratory conditions.
The actual values depend on environmental factors such as rain or fog.

Conventional Ex lighting

Discontinued product HAMBURG

While technology is constantly evolving, regulations are also changing. As a result, tried-and-tested items have to give way from time to time, and conventional lighting must either be replaced or retrofitted in accordance with EU legislation. As long as stocks last, the old classics are still available. Should you need to look for suitable LED alternatives, we will be happy to assist.



HAMBURG LXH500

HAMBURG

Type	Ex floodlight
Ex protection class	II 2G Ex d eb IIB T2-T4 Gb II 2D Ex tb IIIC T85°C-T210°C Db
Certificate	BVS 09 ATEX E 050 X IECEx BVS-10.0009X
Housing and color	Housing made of seawater-resistant aluminum with a special Ex powder coating (grey), brackets made of stainless steel.
IP protection class	IP 67
Wattage	Max. 400 W, max. 500 W
Input voltage	230 V AC at 50/60Hz
Illuminant	NAV or halogen (bulbs not included)

Ranges and luminous flux were measured or calculated under laboratory conditions.
The actual values depend on environmental factors such as rain or fog.

Conventional Ex lighting

Discontinued products ROTTERDAM, ACAPULCO



ROTTERDAM EXL236

ROTTERDAM

Type	Ex Linear luminare
Ex protection class	II 2G Ex db eb IIC T4 Gb II 2 D Ex tb IIIC T80 °C Db
Certificate	BVS 09 ATEX E 034 IECEX BVS 09.0033
Housing and color	Glass fiber reinforced polyester in RAL 7035 with clear polycarbonate cover
IP protection class	IP 66
Wattage	Max. 2x18 W, Max. 2x36 W
Input voltage	230 V AC and 110 V AC at 50/60 Hz, 220 V DC, 24 V DC
Illuminant	Delivery without illuminant



ACAPULCO 5061

ACAPULCO 5061

Type	Ex ceiling and warning light
Ex protection class	Ex II 2 G Ex db eb IIB T3-T4 Gb
Certificate	PTB 03 ATEX 1106
Housing and color	Brass body and grid, clear glass
IP protection class	IP 56
Wattage	Max. 25 W
Input voltage	12 V AC, 24 V AC
Illuminant	Comes with illuminant

Ranges and luminous flux were measured or calculated under laboratory conditions.
The actual values depend on environmental factors such as rain or fog.

Ex Installation material

For hazardous areas on ships, KARL DOSE offers a broad range of electrical installation material in accordance to the current ATEX guidelines. Our junction boxes, switches, sockets and plugs are cast from high-quality brass. The products provide protection class IP 56 and are suitable for both indoor and outdoor use. The variety of cable entries makes it easy to always find the right product for your requirements.





SINGAPUR

Our Ex rotary switch has been identical in design and reliability for decades. SINGAPUR is available with different switch inserts.

- + Applicable in zones 1 and 2
- + Highest possible temperature class
- + Robust design

Technical Data

Ex protection class	EEx de IIC T6
Certificate	PTB-Nr. PTB 03 ATEX 1044x
Material and color	Brass housing and cover (blank)
IP protection class	IP 56
Cable gland	M24x1.5
Insert	Ex switch insert 2-pole cut out, internal and external earthing
Nominal voltage	Max. 660 V AC/DC
Nominal current	Max. 16 A
Weight	0.90 kg to 0.95 kg
Dimensions	Up to H132xW130xD112.50 (mm)

Variant	514	514/2	514/D

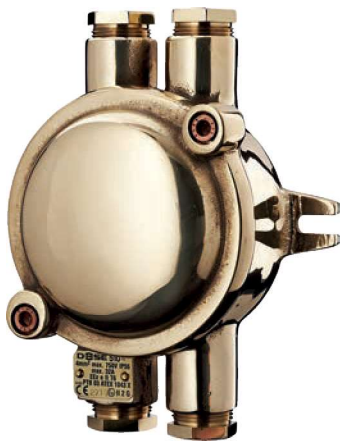
Options

Switch insert 1-pole change over	Polished finish
Powder coated on customer request	

Polished finish at extra cost

Ex Junction box

SHANGHAI




SHANGHAI

The SHANGHAI Ex junction box provides extensive protection against heavy sea and dust and is available with up to 4 cable entries.

- + Applicable in zones 1 and 2
- + Highest possible temperature class
- + Robust design

Technical Data

Ex protection class	EEx e II T6
Certificate	PTB-03-ATEX 1043x
Material and color	Brass housing and cover (blank)
IP protection class	IP 56
Cable gland	M24x1.5
Insert	2 steatite Ex terminal blocks, 2-pole, with brass clamps and anti-reverse lock, suitable for max. 4 mm ² , internal and external earth connection
Nominal voltage	Max. 750 V AC/DC
Nominal current	Max. 32 A
Weight	1.05 kg to 1.39 kg
Dimensions	Up to H110xW165xD65.5 (mm)

Variant	510	510/2	510/3	510/4
				

Options

Polished finish	Powdercoated on customer request
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Polished finish at extra cost





BUSAN

The BUSAN Ex socket is suitable for use in zones 1 and 2. It is particularly durable thanks to its robust construction. In addition to the socket, a BUSAN plug is also optionally available.

- + Highest possible temperature class
- + Applicable in zones 1 and 2
- + Robust design

Technical Data

	Socket	Plug
Ex protection class	EEx ed IIC T6/T5	EEx ed IIC T6/T5
Certificate	PTB 03 ATEX 1050x	PTB 03 ATEX 1050x
Material and color	Brass	Brass
IP protection class	IP 56	IP 56
Cable gland	M24x1,5	/
Insert	Encapsulated socket insert, forced switching with locking, internal and external earth connection	/
Nominal voltage	Max. 240 V AC/DC	Max. 240 V AC/DC
Nominal current	Max. 16 A	Max. 16 A
Weight	2,45 kg bis 2,55 kg	Approx. 1,18 kg
Dimensions	Up to H169xB204xT103 (mm)	Up to H178xØ72 (mm)
Variant	516/L 516/R	516/D
		

Options

Polished finish

Powder coated on customer request

Polished finish at extra cost

Explosionsgefährdete Bereiche

Our Ex portfolio has a protection class of at least **IP 56** and complies with the current **ATEX Directive 2014/34/EU**. In addition, some of our Ex products also comply with the IECEx standard.

The Ex products cover **zones 1 and 2** of the potentially explosive atmospheres.

Zone 1: Flammable gases occur occasionally.

Zone 2: Flammable gases occur only briefly

The majority of our products are classified as **explosion group IIC** and have the highest possible **temperature class T6**.

T6 means that the surface of the product reaches max. 85° C and in combination with explosion group IIC it may be used in places with all ATEX-listed occurring substances. For the ignition protection type, we usually use the flameproof encapsulation or the increased safety (also in combination).

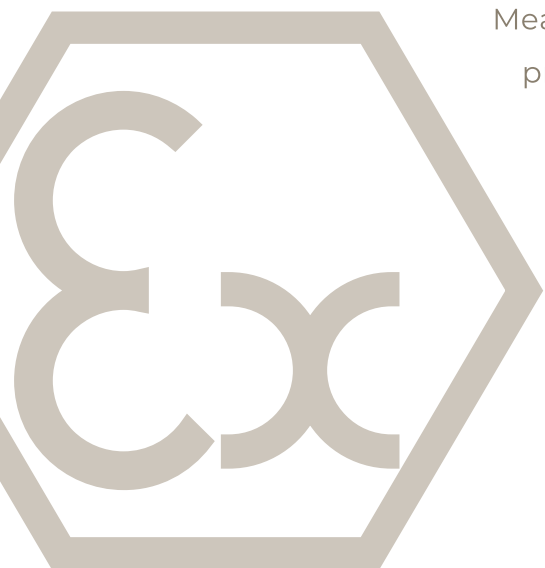
DIN EN 60079-1 „d“ Device protection by flameproof encapsulation.

Parts that could ignite a potentially explosive atmosphere are enclosed in the housing of the device and withstand the pressure of explosions.

DIN EN 60079-7 „e“ Device protection through increased safety

Measures have been taken for increased safety. They prevent the occurrence of impermissibly high temperatures or sparks/arcs on the device.

Our ex-portfolio can be used in almost all areas. We will be happy to find the right Ex product for your application. Please contact us.



Polished finish at extra cost