



Ex-Ceiling, pendant light fittings and floodlights





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4.1

Explosion-protected pendant light fittings and floodlights

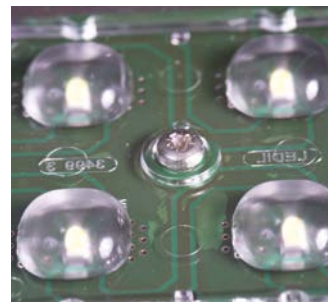
4 Fields of application and decision criteria

The suitable lighting technology for your application

Normally high pressure discharge lamps are used in combination with pendant light fittings and floodlights. They provide a high light output and a relatively long life span. Depending on the required light colour, HP metal halide lamps



or HP sodium vapour lamps are usually fitted. The compact design and the relatively low heat generation allows the use of this technology in small luminaire housings.



or HP sodium vapour lamps are usually fitted.

The innovating white high-power LED technology has an extreme long life span. Moreover, it is insensitive to vibrations and shocks. With its very high efficiency, it enables a higher intensity of light with lower power



Field of application

For this reason, these are the preferred light fittings for use in areas that are hard to access and where replacing lamps is time-consuming and difficult.

Pendant light fittings and floodlights are the ideal solution for the illumination of locations with high suspension heights





that require a high illumination level or the illumination of large complexes, surfaces or objects. Explosion-protected light fittings are used in both indoor and outdoor hazardous areas, on- and offshore areas, in production plants and storage buildings, in the chemical, petrochemical and pharmaceutical industry, as well as for the illumination of outside areas such as loading zones, harbour areas and petrol depots. Particularly in offshore areas, lighting solutions with LED technology are being used more and more because of their resistance to vibration.

Harsh operating conditions

Explosion-protected CEAG pendant light fittings and floodlights for the Zones 1, 2, 21 and 22 guarantee a safe and reliable operation, even under difficult operating conditions such as extremely high or low ambient temperatures, high humidity, dusts or aggressive explosive atmospheres. Among other things, the high ingress protection level of the light fittings, which are required for these conditions is assured even after a long period of use. A long service life and a high reliability of the used electrical and mechanical components make these lamps extremely cost-effective.



Replacing lamps made easy

We also have an efficient solution if under certain conditions a replacement of the lamps on site is not possible, e.g. when ambient temperatures are very low or due to the presence of an explosive atmosphere. With the CEAG floodlights series FZD, you simply replace the complete lamp cartridge. This speeds up the lamp replacement and helps to keep down the maintenance costs. A fast re-availability of the light fixture is ensured even under extreme environmental conditions and low ambient temperatures of -40°C . The actual replacement of the lamps in the lamp cartridge can be carried out later, for example in the workshop.

Even at extreme temperatures

We have developed suitable solutions specifically for use in environmental conditions with extremely low temperatures.



The AB 12 NAV 70 Arctic ceiling light fitting has been certified for use at ambient temperatures down to minus 50°C and the FLT 10 floodlight for an extreme temperature range from minus 55°C to plus 55°C .



Ex-Ceiling light fittings AB 80 / AB 05 LED / AB 05 / AB 12 NAV 70

4 (Zone 1, 2, 21, 22)

The wall and ceiling light fixtures for particularly difficult operating conditions

The impact-resistant and flameproof luminaires of the series AB 80, AB 05 and AB 12 provide a safe and reliable light - even at extreme ambient temperatures and under extreme environmental conditions, such as those encountered in the oil and gas production industry, in- and outdoor areas of chemical plants or in heavy industry. This is due to the robust powder-coated light metal housing, stainless steel screws and a cover or tube made of scratch-resistant borosilicate glass.



The proper illuminant for your application

The AB 05 LED luminaire has an innovative 22 W LED module. The outstanding features are not only the high energy efficiency but also the resistance to shock and vibration. The luminaires of the series AB 05 and AB 80 can be fitted with incandescent or energy-saving lamps and they are used for lighting outdoor pathways or walkways and corridors. High-pressure discharge lamps are used in the luminaire series AB 05 and AB 12 NAV for lighting applications requiring a high illumination level at particularly low ambient temperatures.

AB 80 - the standard solution

This light fitting can be fitted with incandescent lamps with an E27 socket up to 100 W and is used as a wall or ceiling light



in the chemical industry. Due to the robust enclosure and the ambient temperature range up to +55°C, this light fitting is suitable for a wide variety of applications.



AB 05 LED - robust against vibrations

This extremely robust luminaire with integral wire guard and its high-efficiency LED module is resistant against shocks and

vibrations, has an extremely long lamp life and has also been approved for extremely low ambient temperatures as low as minus 55 ° C. Due to an optimised light distribution for low and medium suspension heights, the AB 05 LED is ideal for illuminating walkways, corridors, stairways and storage rooms and for use in all areas with limited space.

AB 05 - solid and reliable

The winning features of the robust housing with integral wire guard are its light weight and easy installation. The ballast for high pressure discharge lamps is mounted on a removable frame. This simplifies maintenance. An internal aluminium reflector provides a uniform light distribution.



Features

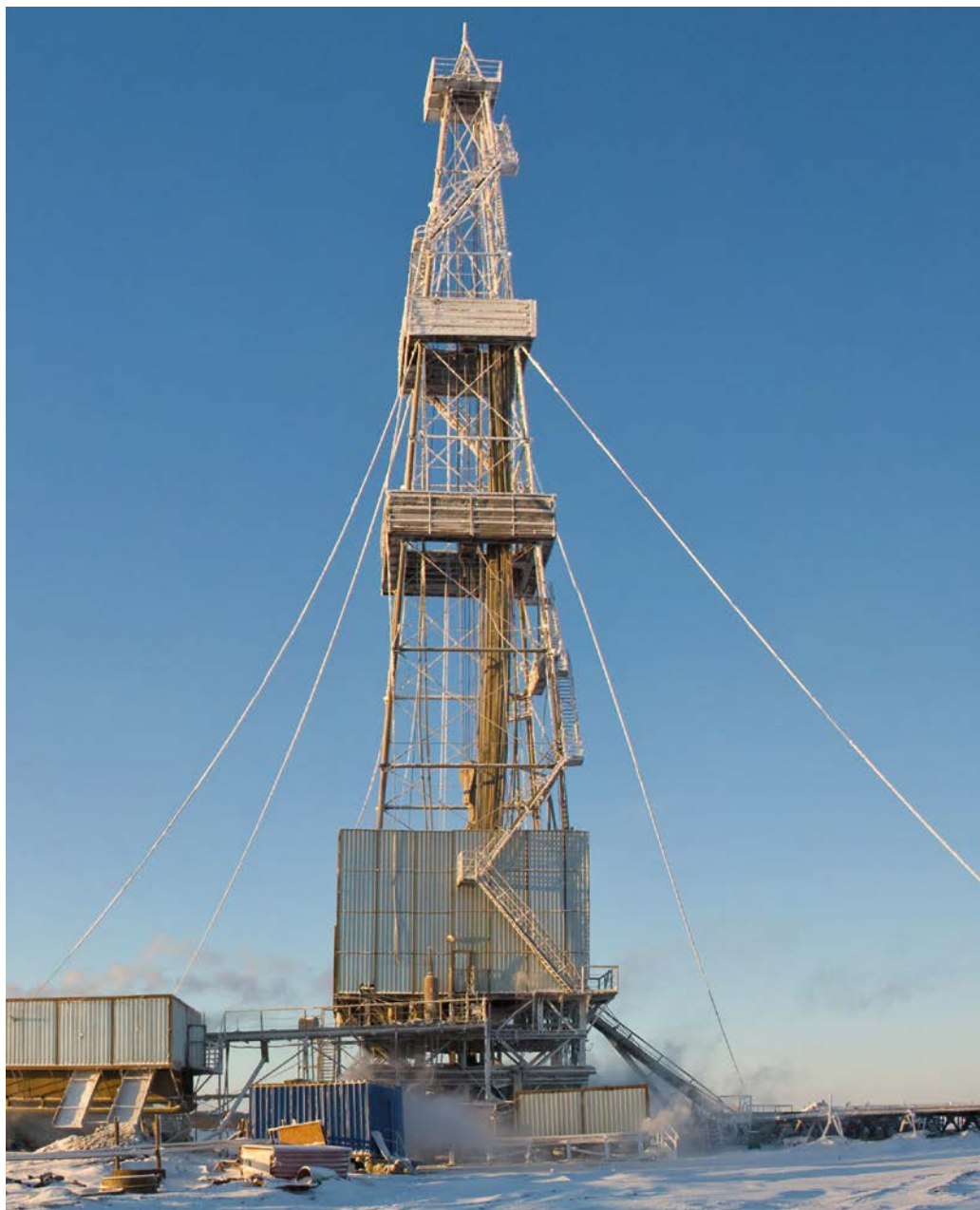
- Extremely rugged design for extremely harsh environments
- Various illuminants can be used
- Wide ambient temperature range depending on the version (-55 ° C to +55 ° C)
- High degree of protection up to IP 67



AB 12 NAV 70 - even for extreme cold environments

This compact Ex-d light fixture for high pressure sodium lamps is suitable for individual lighting solutions for areas with limited mounting space. Lamp, ballast and ignitor are incorporated on a compact module, which allows easy re-lamping and maintenance work. An optional external reflector allows individual illumination of working places.

The **Arctic** version even allows the use of this versatile light fitting in extreme temperature ranges from minus 50 °C up to plus 50 °C within the highest explosion group IIC, e.g. for hydrogen atmospheres.



Ordering details

Type	Lamp/ Illuminant	Rated luminous flux 1)	Weight	Metal thread	Plug	Dust cap	Order No.
AB 80							
AB 80	IGA 60 W, 100 W / TC-DSE 11 W/ LED E27 lamp up to 13 W	710 lm / 1360 lm / 660 lm	6.6 kg	2 x 3/4" NPT	1 x 3/4" screw plug		NOR 000 005 120 124
AB 80	IGA 60 W, 100 W / TC-DSE 11 W/ LED E27 lamp up to 13 W	710 lm	6.6 kg	2 x M25	1 x M25 screw plug	x	NOR 000 005 120 123
AB05 LED including LED-module							
AB 05 LED	LED module 22 W	2000 lm	7.0 kg	1 x M20	-	x	AB05 251 011 0301
AB 05 LED	LED module 22 W	2000 lm	7.0 kg	1 x M25	-	x	AB05 251 021 0301
AB 05 LED	LED module 22 W	2000 lm	7.0 kg	2 x M20	1 x M20 Ex-d	x	AB05 251 111 0301
AB 05 LED	LED module 22 W	2000 lm	7.0 kg	2 x M25	1 x M25 Ex-d	x	AB05 251 221 0301
AB 05 Ex-e							
AB 05 Ex-e	IGA 60 W	710 lm	5.9 kg	1 x M20	-	x	AB05 531 011 0001
AB 05 Ex-e	IGA 60 W	710 lm	5.9 kg	1 x M25	-	x	AB05 531 021 0001
AB 05 Ex-e	IGA 60 W	710 lm	5.9 kg	2 x M25	1 x M25 Ex-d	x	AB05 531 111 0001
AB 05 Ex-e	IGA 60 W	710 lm	5.9 kg	1 x M25	-	x	AB05 531 221 0001
AB 05 Ex nR							
AB 05 Ex nR	HSE 70 W	5600 lm	5.4 kg	1 x M20	-	x	AB05 611 011 0001
AB 05 Ex nR	HSE 70 W	5600 lm	6.9 kg	1 x M25	-	x	AB05 611 021 0002
AB 05 Ex nR	HSE 70 W	5600 lm	5.4 kg	2 x M20	1 x M20 Ex-d	x	AB05 611 111 0001
AB 05 Ex nR	HSE 70 W	5600 lm	5.4 kg	2 x M25	1 x M25 Ex-d	x	AB05 611 221 0001
AB 05 Ex nR	HME 80 W	3800 lm	6.9 kg	2 x M25	1 x M25 Ex-d	x	AB05 621 221 0001
AB 05 Ex nR	IGA 200 W	3100 lm	6.9 kg	1 x M25	-	x	AB05 631 021 0001
AB 05 Ex-d IIB +H2							
AB 05 Ex-d IIB +H2	HSE 70 W	5600 lm	6.9 kg	1 x M20	-	x	AB05 111 011 0001
AB 05 Ex-d IIB +H2	HSE 70 W	5600 lm	6.9 kg	1 x NPT 1/2"	-	x	AB05 111 031 0001
AB 05 Ex-d IIB							
AB 05 Ex-d IIB	HSE 70 W	5600 lm	6.9 kg	1 x M20	-	x	AB05 211 011 0001
AB 05 Ex-d IIB	HSE 70 W	5600 lm	6.9 kg	1 x M20	1 x M20 Ex-d	x	AB05 211 111 0001

¹⁾ depends on used lamps

Scope of delivery without lamp and fixing accessories, if not stated otherwise.

Metal cable glands see catalogue part 2: 2.3.12 ff

Ordering details



Type	Lamp/ Illuminant	Rated luminous flux ¹⁾	Weight	Metal thread	Plug	Dust cap	Order No.
AB 12 NAV 70 ...							
AB 12 NAV 70, IIC G2 -20 °C up to +40 °C	HSE 70 W	5600 lm	5.3 kg	2 x 3/4" NPT	1 x 3/4" Ex-d	x	NOR 000 005 060 074
AB 12 NAV 70, IIB G2 -45 °C up to +55 °C	HSE 70 W	5600 lm	5.3 kg	2 x 3/4" NPT	1 x 3/4" Ex-d	x	NOR 000 005 060 075
AB 12 NAV 70 Arctic ...							
AB 12 NAV 70 Arctic IIC, -50 °C up to +40 °C	HST 70 W	5600 lm	5.6 kg	2 x 3/4" NPT	1 x 3/4" Ex-d	x	1 1750 000 353
AB 12 NAV 70 Arctic IIC, -50 °C up to +40 °C	HST 70 W	5600 lm	5.6 kg	2 x M25	1 x M25 Ex-d	x	1 1750 000 354

¹⁾ depends on used lamps

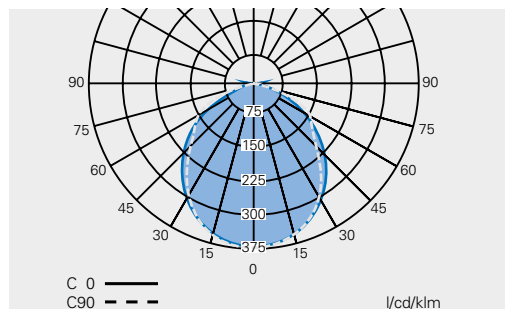
Scope of delivery without lamp and fixing accessories, if not stated otherwise.
Metal cable glands see catalogue part 2: 2.3.12 ff

Accessories

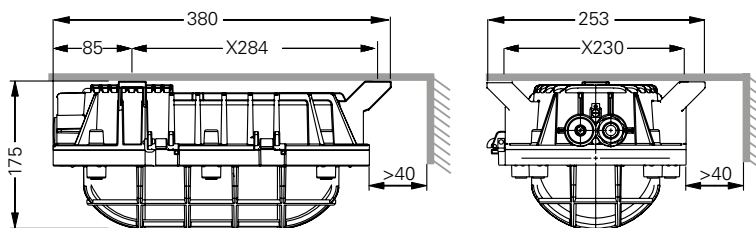
Type	Content	Application	OU	Order No.
GAB 80	Wire guard, galvanized	AB 80	1	NOR 000 005 120 439
Lamp HSE 70 W	High pressure sodium lamp 70 W E27	AB 05, AB 12 NAV 70	1	3 2475 900 012
Lamp HST 70 W	High pressure sodium lamp 70 W E27	AB 12 NAV 70 Arctic	1	3 1750 301 070
D92	Ceiling mounting bracket incl. screws and polyamide washer - Stainless steel (2 pcs.)	AB 12 NAV 70	1	2 2480 092 000
A5	Ceiling bracket hot galvanized (1 pc.)	AB 12 NAV 70	1	NOR 000 005 009 196
BFP 45	Wall bracket 45° hot galvanized (1 pc.)	AB 12 NAV 70	1	NOR 003 045 060 471
Reflector RAB 108	Material: AISI 304	AB 12 NAV 70	1	NOR 003 045 060 471
Reflector RAB 108	Material: AISI 304 with wire guard white	AB 12 NAV 70	1	NOR 003 045 060 819
Reflector RAB 108	Material: AISI 316	AB 12 NAV 70	1	NOR 003 165 060 471
Reflector RAB 108	Material: AISI 316 with wire guard white	AB 12 NAV 70	1	NOR 003 165 060 819

Metal cable glands see catalogue part 2, page 2.3.12 ff

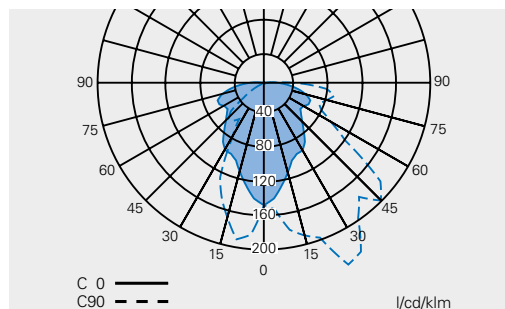
Polar curve AB 05 LED



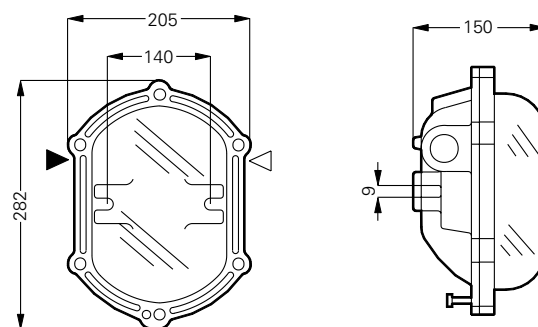
AB 05 LED



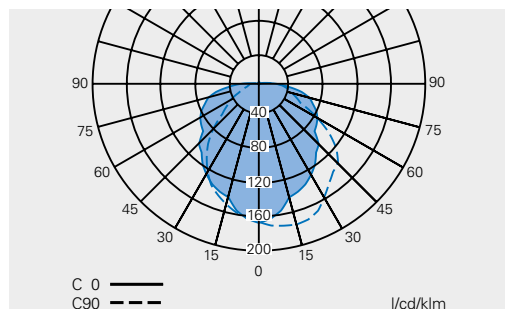
Polar curve AB 05 Ex de



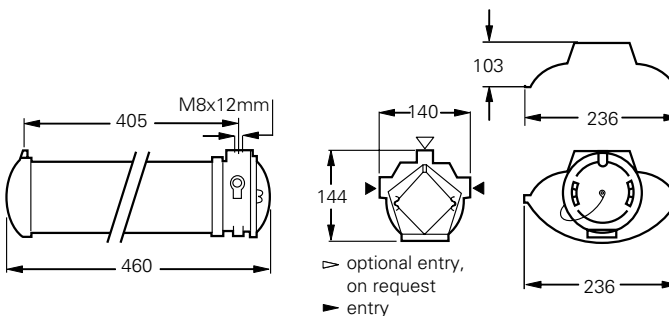
AB 80



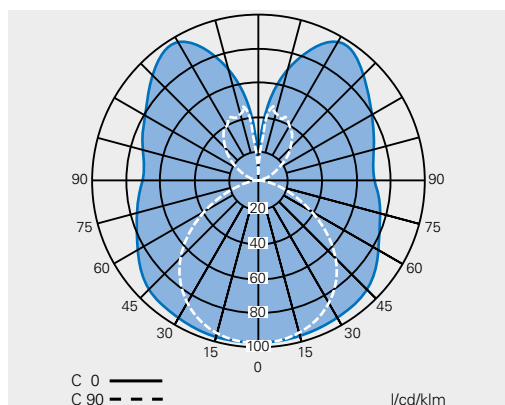
Polar curve AB 05 nR



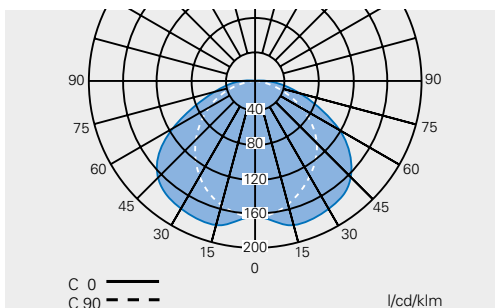
AB 12 NAV



Polar curve AB 12 NAV 70 without reflector



Polar curve AB 12 NAV 70 with reflector





Technical data

4

	AB 80	AB 05 LED
EC-Type Examination Certificate	LOM 01 ATEX 2041 X	BVS 09 ATEX E 014 X
IECEx Certificate of Conformity		IECEx BVS 09.0032X
Marking accd. to 2014/34/EU	II 2 G Ex d IIB T4.. T6 Gb	II 2 G Ex d IIB T6 (Tu ≤ +40°C)/T5 Gb II 2 D Ex tb IIIC T80 °C (Tu ≤ +40°C)/T100 °C Db IP66
Marking accd. to IECEx		Ex d IIB T6 (Tu ≤ +40°C)/T5 Gb Ex tb IIIC T80°C (Tu ≤ +40°C)/T100°C Db
Permissible ambient temperature	-20 °C up to +55 °C	-55 °C up to +55 °C
Rated voltage	max. 250 V	230 V AC
Frequency		50 - 60 Hz
Power consumption		approx. 23 W
Protection class	I	I
Lamp / Illuminant	Incandescent lamp	LED module 22 W (incl.)
Rated luminous flux	¹⁾	
Rated luminous flux of the luminaire (typical, ± 10 %)		1453 lm
Lamp cap	E27	LED module
Light output ratio	60 %	100 %
Dimensions (L x W x H)	282 x 205 x 150 mm	360 x 230 x 175 mm
Connecting terminals	L1, N, PE: 2 x 2.5 mm ²	L1, N, PE: type MUT 4, 2 x 4 mm ²
Enclosure earth	2 x 6 mm ²	2 x 6 mm ²
Enclosure colour	Epoxy paint, body RAL 7032	Epoxy paint, body RAL 7032
Enclosure material	cast iron	light alloy
Weight	6.6 kg	7.0 kg
Cable glands / gland plates / enclosure drilling	2 x M25 x 1.5 or 2 x 3/4" NPT (with adaptor)	1 x M20/M25 x 1.5, 2 x M20/M25 x 1.5, 1 x 3/4" NPT or 2 x 3/4" NPT on request
Type of mounting	ceiling/wall mounting	ceiling/wall mounting
Degree of protection accd. to EN EN 60598	IP65	IP66
Protective cover / protective bowl	borosilicate glass	borosilicate glass
Screw plugs	1 x M25 or 3/4" NPT Ex-d screw plug	1 x M20/M25 or 3/4" NPT Ex-d screw plug

¹⁾ depends on used lamps



4 Technical data

	AB 05 Ex-e	AB 05 Ex nR
Type Examination Certificate		BVS 07 ATEX E 151
EC-Type Examination Certificate	BVS 07 ATEX E 152 X	
IECEX Certificate of Conformity	IECEX BVS 10.0070X	IECEX BVS 10.0071
Marking accord. to 2014/34/EU	Ⓜ II 2 G Ex de IIC T3 ²⁾ /T2 Gb Ⓜ II 2 D Ex tb IIIC T125 °C Db IP66	Ⓜ II 3 G nR II T4/T3 Gc Ⓜ II 3 D Ex tc IIIC T100°C/ T125°C/ T140°C Dc IP66
Marking accord. to IECEx	Ex de IIC T3 ²⁾ /T2 Gb Ex tb IIIC T125 °C Db IP66	Ex nR IIC T4/T3 Gc Ex tc IIIC T100°C/T125°C/T140°C Dc IP66
Permissible ambient temperature	-20 °C up to +55 °C	-55 °C up to +55 °C
Rated voltage	max. 250 V	230 V AC
Frequency	50 - 60 Hz	50 - 60 Hz
Power factor cos φ		≥ 0.9
Protection class	I	I
Lamp / Illuminant	Incandescent lamp max. 60 W	incandescent lamp max. 200 W, high pressure sodium lamp HSE 70 W, compact fluorescent lamp max. 23 W
Rated luminous flux	710 lm ¹⁾	¹⁾
Lamp cap	E27 accord. IEC 60238	E27 accord. IEC 60238
Light output ratio	70 %	70 %
Dimensions (L x W x H)	360 x 230 x 175 mm	360 x 230 x 175 mm
Connecting terminals	L1, N, PE: 2 x 2.5 mm ²	L1, N, PE: 2 x 2.5 mm ²
Enclosure earth	2 x 6 mm ²	2 x 6 mm ²
Enclosure colour	Epoxy paint, body RAL 7032	Epoxy paint, body RAL 7032
Enclosure material	light alloy	light alloy
Weight	5.9 kg	6.9 kg
Cable glands / gland plates / enclosure drilling	1 x M20/M25 x 1.5, 2 x M20/M25 x 1.5, 1 x 3/4" NPT or 2 x 3/4" NPT	1 x M20/M25 x 1.5, 2 x M20/M25 x 1.5, 1 x 3/4" NPT or 2 x 3/4" NPT
Type of mounting	ceiling-/wall mounting	ceiling-/wall mounting
Degree of protection accord. to EN 60529	IP66	IP66
Protective cover / protective bowl	borosilicate glass	borosilicate glass
Screw plugs	max. 1 x M20/M25 or 3/4" NPT Ex-d screw plug	max. 1 x M20/M25 or 3/4" NPT Ex-d screw plug

¹⁾ depends on used lamps

²⁾ T3 when using a 60 W incandescent lamp accord. to EN 60064 and DIN 49810 with "T"-marking

Additional luminaire data AB 05 Ex nR

Lamp	Power	Luminous flux ¹⁾	Temperature class II 2/3 G	max. surface temp. II 2/3 D
Compact fluorescent lamp ²⁾	23 W	1450 lm	T4	T 130 °C
High pressure sodium lamp	70 W	5600 lm	T4	T 125 °C
Incandescent lamp IGA	200 W	3150 lm	T3	T 140 °C

¹⁾ depends on used lamps / ²⁾ T₀ ≤ 30 °C



Technical data

	AB 05 Ex-d IIB +H2 / AB 05 Ex-d IIB	AB12 NAV70 / AB 12 NAV 70 Arctic
EC-Type Examination Certificate	PTB 08 ATEX 1001 X	LOM 02 ATEX 2013X
IECEx Certificate of Conformity		IECEx BK1 07.0008X
Marking accd. to 2014/34/EU	Ⓔ II 2 G Ex d IIB (+H2) T4/T3 Gb / Ⓔ II 2 G Ex d IIB T4/T3 Db	Ⓔ II 2 G Ex d IIB/IIC T3 Gb Ⓔ II 2 G Ex d IIC T3 Gb Ⓔ II 2 D Ex t IIIC T155 °C Db Ⓔ II 2 D Ex t IIIC T155 °C Db
Marking accd. to IECEx		Ex d IIB T3 / Ex d IIC T3 Ex tD A21 IP66 T150°C
Permissible ambient temperature	-20 °C up to +55 °C	-20 °C up to +55 °C (gas-group IIC); -45 °C up to +55 °C (gas-group IIB) / -50 °C up to +40 °C (Arctic)
Rated voltage	230 V AC	230 V AC
Rated current		0.36 A
Frequency	50 - 60 Hz / 50 Hz	50 Hz
Power factor cos φ	≥ 0.9	≥ 0.9
Protection class	I	I
Lamp name	incandescent lamp up to 200 W, high pressure sodium lamp HSE 70 W	High pressure sodium lamp HST 70 W
Rated luminous flux	¹⁾	5600 lm ¹⁾
Lamp cap	E27 accord. IEC 60238	E27 accord. IEC 60238
Light output ratio	70 %	51%
Dimensions (L x W x H)	360 x 230 x 175 mm	460 x 140 x 144 / 530 x 140 x 144
Connecting terminals	L1, N, PE: 2 x 2.5 mm ²	L1, N, PE: 2 x 2.5 mm ² , PE: 2 x 6 mm ²
Enclosure earth	2 x 6 mm ²	2 x 6 mm ²
Enclosure colour	Epoxy paint, body RAL 7032	Epoxy paint, body RAL 7032
Enclosure material	light alloy	light alloy
Weight	6.9 kg	5.3 kg / 5.6 kg
Cable glands / gland plates / enclosure drilling	1 x M20/M25 x 1.5, 2 x M20/M25 x 1.5, 1 x 3/4" NPT or 2 x 3/4" NPT	2 x 3/4" thread (Ex-d) / 2 x 3/4" or 2 x M25 thread (Ex-d)
Type of mounting	ceiling-/wall mounting	ceiling-/wall mounting
Degree of protection accd. to EN 60529	IP66	IP67
Protective cover / protective bowl	borosilicate glass	borosilicate glass
Screw plugs	max. 1 x M20/M25 or 3/4" NPT Ex-d screw plug	1 x 3/4" Ex-d screw plug

¹⁾ depends on used lamps

Additional luminaire data AB 05 Ex-d IIB +H2 / AB 05 Ex-d IIB

Lamp	Power	Luminous flux ¹⁾	Permissible ambient temperature	Temperature class II 2 G
Incandescent lamp IGA	40 W	430 lm	-20 °C up to +55 °C	T4
Incandescent lamp IGA	60 W	3100 lm	-20 °C up to +55 °C	T4
Incandescent lamp IGA	100 W	1380 lm	-20 °C up to +55 °C	T4
Incandescent lamp IGA	200 W	3150 lm	-20 °C up to +55 °C	T4
High pressure sodium lamp	70 W	5600 lm	-20 °C up to +40 °C	T4

¹⁾ depends on used lamps

4.3

Ex-Pendant light fittings AB 50 / SPG 1N / AB 51 / EVI 200 / EVI 500 / EV35 LED

(Zone 1, 2, 21, 22)

The pendant light fitting series for a wide variety of applications

The explosion-protected pendant light fittings for incandescent and energy-saving lamps, high intensity discharge and induction lamps can be used with their different housing solutions in different areas. The robust flameproof luminaires have been in use in many industrial plants for many years and have stood the test of time.

AB 50 / SPG 1N and AB 51

This larger series of pendant light fittings is suitable for incandescent and mixed-light lamps. The robust light alloy enclosure allows a wide range of applications. The protective glass dome is made of borosilicate glass and is extremely impact and heat resistant. The reflector and all external screws are made of stainless steel. Easy replacement of lamps is made possible by opening the PTFE-coated connection ring. Both devices (the protective glass dome and connection ring) are provided with hinges to allow easy access. Thanks to their robust design, these light

fittings are suitable for use in the chemical industry and are certified for ambient temperatures from -55 °C to +55 °C.

EVI the powerful pendant light fitting series

This larger series of pendant light fittings is suitable for incandescent and mixed-light lamps. The robust light alloy enclosure allows a wide range of applications. The protective glass dome is made of borosilicate glass and is extremely impact and heat resistant. The reflector and all external screws are made of stainless steel. Easy replacement of lamps is

made possible by opening the PTFE-coated connection ring. Both devices (the protective glass dome and connection ring) are provided with hinges to allow easy access. Thanks to their robust design, these light fittings are suitable for use in the chemical industry and are certified for ambient temperatures from -55 °C to +55 °C.



Features

- Different housing solutions with different light sources for nearly every application
- Robust design for harsh environments
- With large Ex-d or Ex-e terminal compartment
- Wide ambient temperature range depending on the version from -50 °C up to +55 °C
- CU-Certificate for Eurasian Economic Community available
- High degree of protection IP 66
- Meets the highest corrosion protection and mechanical strength requirements



**EV 35 - the efficient solution
for your illumination concept
for hazardous areas**

The robust Ex-pendant light fitting EV 35 LED with energy saving LED-module combines state-of-the-art lighting engineering with the requirements of harsh and hazardous environments. With an efficient LED technology and with no harmful UV radiation, this series of light fittings provides a perfect illumination. Together with an internal reflector, this light fitting can also be used as a downlight.

And, last but not least, the long life and the low power consumption of the LED module helps to keep down running costs. Thanks to the extremely solid construction of the housing, this series of pendant light fittings is resistant to impact, vibrations and shocks. As a result, they provide an ideal lighting concept for applications in harsh and hazardous environments.

Even extreme ambient temperatures from -50°C up to +55 °C are no problem for the robust LED technology of the light fittings.

Ordering details

Type	Lamp / Illuminant	Rated luminous flux ³⁾	Weight	Metal thread	Threaded plug	Dust cap	Order No.
AB 50 ... (IU = direct entry, IXM = indirect entry)							
AB 50 IU	IGA 60 W, 100 W, 75 W halogen	710 lm / 1360 lm	1.6 kg	2 x 3/4" NPT	1 x 3/4" Ex-d	x	NOR 000 115 110 289
AB 50 IXM	IGA 60 W, 100 W, 75 W halogen	710 lm / 1360 lm	2.2 kg	2 x M25	1 x M25 Ex-e	x	NOR 000 115 110 320
AB 50 IU, -50 °C up to +55 °C	60 W, 100 W, 75 W halogen	710 lm / 1360 lm	1.6 kg	2 x 3/4" NPT	1 x 3/4" Ex-d	x	NOR 000 115 110 389
AB 50 IXM, -50 °C up to +55 °C	60 W, 100 W, 75 W halogen	710 lm / 1360 lm	2.2 kg	2 x M25	1 x M25 Ex-e	x	NOR 000 115 110 420
SPG 1N	60 W, 100 W, 75 W halogen	710 lm / 1360 lm	2.2 kg	2 x M25	1 x M25 Ex-e	x	NOR 000 005 110 745
AB 51 ... (IU = direct entry, IX = indirect entry)							
AB 51 IU ²⁾			3.6 kg	2 x 3/4" NPT	1 x 3/4" Ex-d	x	NOR 000 115 110 396
AB 51 IU, -50 °C up to +55 °C ²⁾			3.6 kg	2 x M25	1 x M25 Ex-d	x	NOR 000 115 110 497
AB 51 IU ²⁾			3.6 kg	2 x M25	1 x M25 Ex-d	x	NOR 000 115 110 496
AB 51 IU, -50 °C up to +55 °C ²⁾			3.6 kg	2 x 3/4" NPT	1 x 3/4" Ex-d	x	NOR 000 115 110 397
AB 51 IX ²⁾ (indirect entry)			4.5 kg	2 x M25	1 x M25 Ex-e	x	NOR 000 115 110 437
AB 51 IX (indirect entry) -50 °C up to +55 °C ²⁾			4.5 kg	2 x M25	1 x M25 Ex-e	x	NOR 000 115 110 438
AB 51 ... (direct entry)							
AB 51 M 80 V	HME 80 W	3800 lm	7.5 kg	2 x 3/4" NPT	1 x 3/4" Ex-d	x	NOR 000 115 110 893
AB 51 M 80 V, -45 °C up to +55 °C	HME 80 W	3800 lm	7.5 kg	2 x 3/4" NPT	1 x 3/4" Ex-d	x	NOR 000 115 110 863
AB 51 M 80 V, -45 °C up to +55 °C	HME 80 W	3800 lm	7.5 kg	2 x M25	1 x M25 Ex-d	x	NOR 000 115 110 864
AB 51 M 125 V	HME 125W	6300 lm	7.5 kg	2 x 3/4" NPT	1 x 3/4" Ex-d	x	NOR 000 115 110 890
AB 51 M 125 V, -45 °C up to +55 °C	HME 125W	6300 lm	7.5 kg	2 x 3/4" NPT	1 x 3/4" Ex-d	x	NOR 000 115 110 891
AB 51 S 70 V2 NI	HSE/HIE 70 W	5600 lm	7.5 kg	2 x 3/4" NPT	1 x 3/4" Ex-d	x	NOR 000 115 110 905
AB 51 S 70 V2 MI	HSE/HIE 70 W	5600 lm	7.5 kg	2 x M25	1 x M25 Ex-d	x	NOR 000 115 110 904
AB 51 S 70 V2 NLTI, -45 °C up to +55 °C	HSE/HIE 70 W	5600 lm	7.5 kg	2 x 3/4" NPT	1 x 3/4" Ex-d	x	NOR 000 115 110 907
AB 51 S 70 V2 MLTI, -45 °C up to +55 °C	HSE/HIE 70 W	5600 lm	7.5 kg	2 x M25	1 x M25 Ex-d	x	NOR 000 115 110 906
AB 51 M 125 V	HME 125W	6300 lm	7.5 kg	2 x M25	1 x M25 Ex-d	x	NOR 000 115 110 990
AB 51 M 125 V, -45 °C up to +55 °C	HME 125W	6300 lm	7.5 kg	2 x M25	1 x M25 Ex-d	x	NOR 000 115 110 991
EVI 200 ... (UD = direct entry, XM = indirect entry)							
EVI 200 UD ¹⁾		¹⁾	8.2 kg	2 x 3/4" NPT	1 x 3/4" Ex-d	x	NOR 000 005 110 753
EVI 200 XM, ¹⁾		¹⁾	9 kg	2 x M25	1 x M25 Ex-e	x	NOR 000 115 110 941
EVI 200 UD, -50 °C up to +55 °C ¹⁾		¹⁾	8.2 kg	2 x 3/4" NPT	1 x 3/4" Ex-d	x	NOR 000 115 110 753
EVI 200 XM, -50 °C up to +55 °C ¹⁾		¹⁾	9 kg	2 x 3/4" NPT	1 x 3/4" Ex-e	x	NOR 000 115 110 943
EVI 500 ... (UD = direct entry, XM = indirect entry)							
EVI 500 UD ¹⁾		¹⁾	12.8 kg	2 x 3/4" NPT	1 x 3/4" Ex-d	x	NOR 000 005 110 761
EVI 500 UD, -50 °C up to +55 °C ¹⁾		¹⁾	12.8 kg	2 x 3/4" NPT	1 x 3/4" Ex-d	x	NOR 000 005 110 763
EVI 500 XM ¹⁾		¹⁾	13.6 kg	2 x M25	1 x M25 Ex-e	x	NOR 000 115 110 942
EVI 500 XM, -50 °C up to +55 °C ¹⁾		¹⁾	13.6 kg	2 x 3/4" NPT	1 x 3/4" Ex-e	x	NOR 000 115 110 944

¹⁾ see table luminaire data S. 1.4.20 - 1.4.21²⁾ see table luminaire data page 1.4.20 (w/o HID lamps)³⁾ depends on used lamps

Ordering details



Type	Lamp / Illuminant	Weight	Metal thread	Threaded plug	Dust cap	Order No.
EV 35 ... including LED-module (UD = direct entry, XM = indirect entry)						
EV 35 UD LED	LED module 22 W	9.1 kg	2 x M25	1 x M25 Ex-d	x	NOR 000 115 110 600
EV 35 XM LED	LED module 22 W	10.05 kg	2 x M25	1 x M25 Ex-e	x	NOR 000 115 110 605
EV 35 UD LED R0	LED module 22 W with internal reflector	9.1 kg	2 x M25	1 x M25 Ex-d	x	NOR 000 115 110 610
EV 35 XM LED R0	LED module 22 W with internal reflector	10.05 kg	2 x M25	1 x M25 Ex-e	x	NOR 000 115 110 630

¹⁾ see table luminaire data S. 1.4.21

Accessories

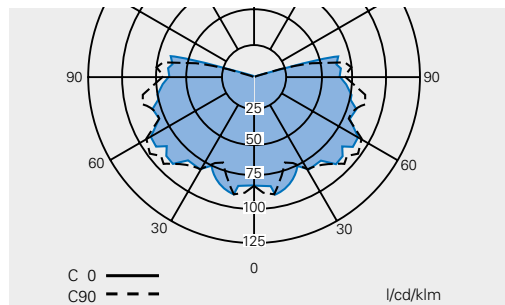
Type	Content	Application	OU	Order No.
ER	External reflector painted steel	AB 50	1	NOR 000 115 110 718
PC. EV 200	External reflector	AB 51/EVI 200	1	NOR 000 005 110 894
PC. EV 500	External reflector	EVI 500	1	NOR 000 005 110 901
BC. EV	Pole mounting bracket for Ø 44 - 64 mm	EV ...	1	NOR 000 005 110 836
AS.EV/AB	Ceiling mounting bracket	EV ...	1	NOR 000 005 110 828
SP. EV 200	Wall mounting bracket	AB 51/EVI 200	1	NOR 000 005 110 935
SP. EV 500	Wall mounting bracket	EVI 500	1	NOR 000 005 110 943
AS.AB51	Ceiling bracket AISI 316	AB 51	1	NOR 003 165 110 000
SPU.EV/AB	Wall mounting bracket, adjustable	EV ...	1	NOR 000 005 110 951
G. EV 200	Wire guard	AB 51/EVI 200	1	NOR 000 005 110 860
G. EV 500	Wire guard	EVI 500	1	NOR 000 005 110 878
KEY, EV	Luminaire key	EV ...	1	NOR 000 005 110 886
CEV/AB	Eye bolt	AB 50/ EV ...	1	NOR 000 005 110 852
C.AB51	Eye bolt AISI 316	AB 51	1	NOR 003 165 110 001
WG	Wire guard, galvanized	AB 50	1	NOR 000 115 110 875
HSE 70 W	High pressure sodium lamp 70 W E27	AB 51 S 70	1	3 2475 900 012
HIE 70 W	High pressure metal halide lamp 70 W E27	AB 51 S 70...	1	3 2475 900 010

Scope of delivery without lamp and fixing accessories, if not stated otherwise.
Metal cable glands see catalogue part 2: 2.3.12 ff

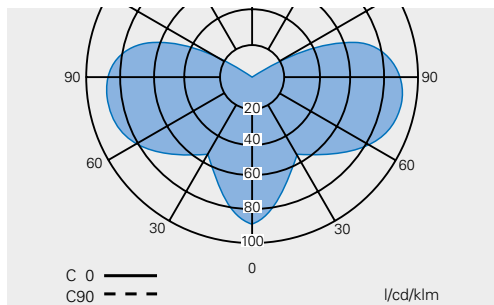
4.3

Polar curve Pendant light fittings

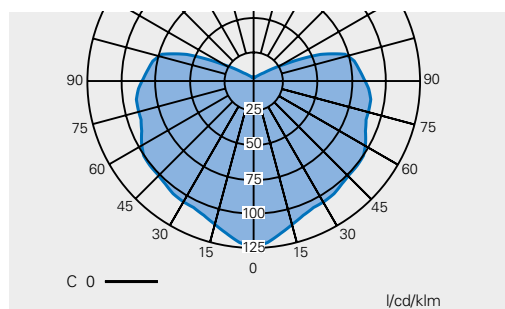
Polar curve AB 50 IU



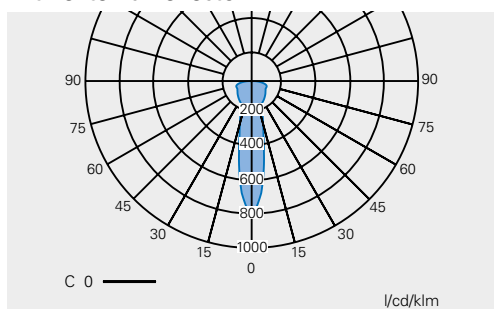
Polar curve EVI 200/500 without external reflector



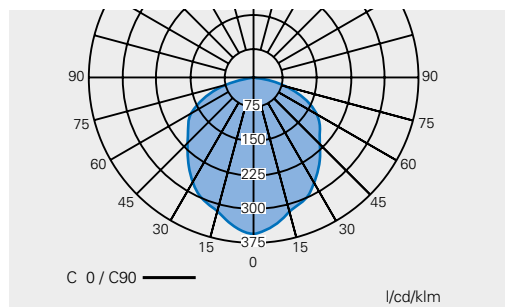
Polar curve AB 51 IU



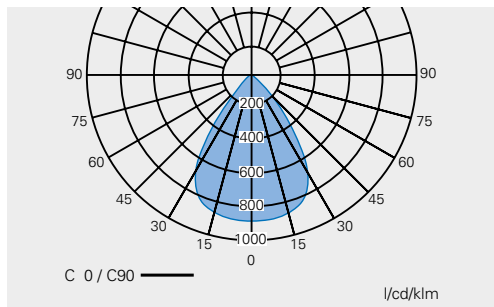
Polar curve EVI 200/500 with external reflector



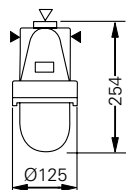
Polar curve EV 35 LED without internal reflector



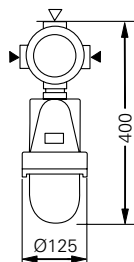
Polar curve EV 35 LED with internal reflector



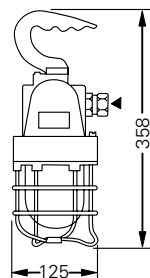
AB 50 IU



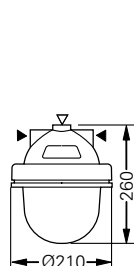
AB 50 IXM



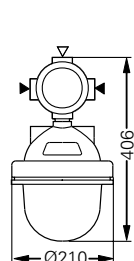
SPG 1N



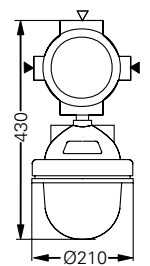
AB 51 IU



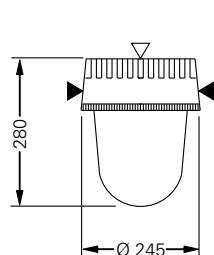
AB 51 IX



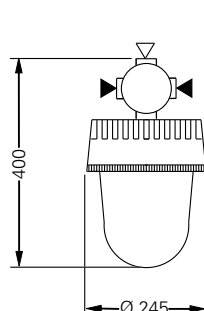
AB 51 ..V



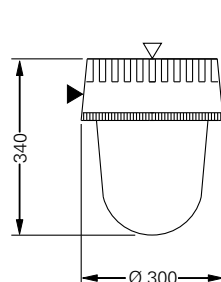
EVI 200 UD



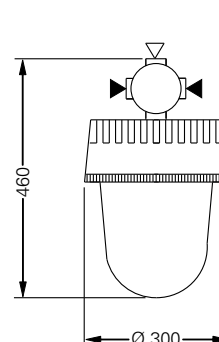
EVI 200 XM



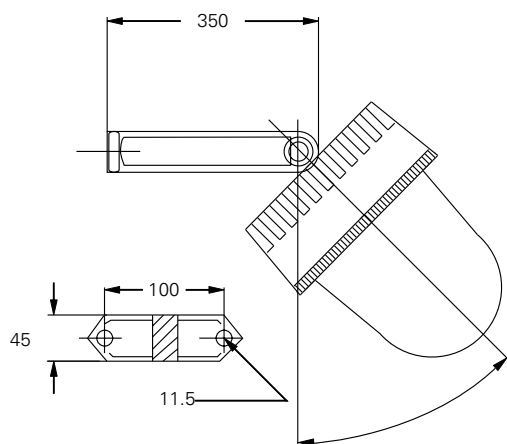
EVI 500 UD



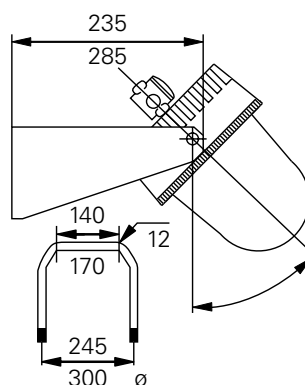
EVI 500 XM



SPU EV/AB

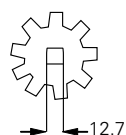


SPEV 200/500

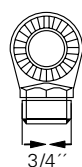


► entry
▽ optional entry, on request

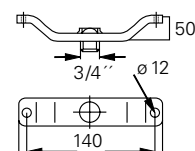
KEY.EV



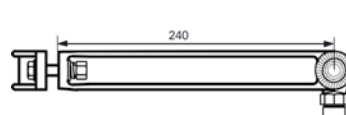
CEV/AB



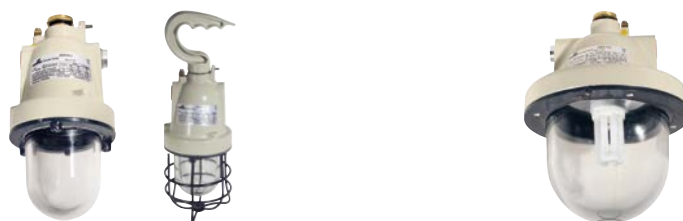
AS.EV/AB



BC. EV



Dimensions in mm



4 Technical data

	AB 50 / SPG 1N	AB 51
EC-Type Examination Certificate	LOM 02 ATEX 2018 X	LOM 02 ATEX 2020 X
IECEx Certificate of Conformity	IECEx BKI 07.0032X	IECEx BKI 07.0028X
Marking accd. to 2014/34/EU	⚡ II 2 D Ex d/de IIC T3 / T6 ⚡ II 2 D Ex tD A21 IP66 T.. °C	⚡ II 2 G Ex d IIC T ¹⁾ Gb ⚡ II 2 G Ex de IIC T ¹⁾ Gb (Indirect entry) ⚡ II 2 D Ex t IIC T ¹⁾ Db
Marking accd. to IECEx	Ex d IIC T3...T6 or Ex de IIC T3...T6 (indirect entry) Ex tD A21 IP66 T145°...T85°C	Ex de IIC T3...T6 Ex tD A21 IP67 T152°C...T86°C
Permissible ambient temperature	-20 °C up to +55 °C -50 °C up to +55 °C (option: AB 50)	-20 °C up to +55 °C / -50 °C up to +55 °C option: IGA / -45 °C up to +55 °C option: HS./HI.
Rated voltage	max. 250 V	max. 250 V (AB 51..); 230 V AC (AB 51 M/S)
Frequency	50 Hz	50 Hz
Power consumption	max. 100 VA	max. 200 VA
Protection class	I	I
Lamp / Illuminant	60 W, 100 W, 75 W halogen	¹⁾
Rated luminous flux	¹⁾	¹⁾
Lamp cap	E27 accord. IEC 60238	E27 accord. IEC 60238
Light output ratio	68 %	75 %
Connecting terminals	L, N, PE: 1 x 2.5 mm ² or 2 x 1.5 mm ² , PE ext. 2 x 6 mm ²	L, N, PE: 1 x 2.5 mm ² or 2 x 1.5 mm ² (IU), 2 x 2.5 mm ² (IX and M/S), PE ext. 2 x 6 mm ²
Enclosure colour	epoxy paint, body RAL 7032	epoxy paint, body RAL 7032
Enclosure material	light alloy	light alloy
Weight	1.6 kg	3.6 kg
Cable glands / gland plates / enclosure drilling	2 x 3/4" or M25 thread (Ex-d), 1 x plugged (UI and M/S) / 2 x M25 x 1.5, 1 x plugged (IX)	2 x 3/4" or M25 thread (Ex-d), 1 x plugged (UI and M/S) / 2 x M25 x 1.5, 1 x plugged (IX)
Type of mounting	ceiling-/wall mounting (AB 50), portable light fixture (SPG 1N)	ceiling-/wall mounting
Degree of protection accd. to EN 60529	IP66	IP66
Protective cover / protective bowl	borosilicate glass	borosilicate glass

¹⁾ see table luminaire data

Additional luminaire data AB 51

Lamp	Power	Luminous flux ²⁾	Temperature class II 2 G		max. surface temp. II 2 D	
			T ₀ ≤ 40 °C	T ₀ ≤ 55 °C	T ₀ ≤ 40 °C	T ₀ ≤ 55 °C
Incandescent lamp IGA 65	150 W	2200 lm	T3	T3	T 132 °C	T 147 °C
Incandescent lamp IGA 80	200 W	3100 lm	T3	T3	T 137 °C	T 152 °C
Halogen lamp IQT	75 W	1100 lm	T5	T4	T 88 °C	T 103 °C
Halogen lamp IQT	150 W	2500 lm	T4	T3	T 123 °C	T 138 °C
Compact fluorescent lamp	max 32 W ³⁾		T6	—	T 85 °C	—
High pressure sodium lamp HSE	50 W	3400 lm	T5	T4	T 86 °C	T 101 °C
High pressure sodium lamp HSE	70 W	5600 lm	T4	T4	T 97 °C	T 112 °C
Metal halide lamp HIE	70 W	5900 lm	T4	T4	T 110 °C	T 125 °C

²⁾ depends on used lamps / ³⁾ T₀ ≤ 30 °C



Technical data

	EVI 200	EVI 500	EV 35 LED
EC-Type Examination Certificate	LOM 02 ATEX 2012 X	LOM 02 ATEX 2012 X	LOM 10 ATEX 2075
IECEx Certificate of Conformity	IECEx BKI 07.0031X	IECEx BKI 07.0031X	
Marking accd. to 2014/34/EU	Ⓜ II 2 G Ex de IIC T ¹⁾ Gb (XM = indirect entry) Ⓜ II 2 G Ex d IIC T ¹⁾ Gb (UD = direct entry) Ⓜ II 2 D Ex td A21 IP67 T ¹⁾ °C Db	Ⓜ II 2 G Ex de IIC T ¹⁾ Gb (XM = indirect entry) Ⓜ II 2 G Ex d IIC T ¹⁾ Gb (UD = direct entry) Ⓜ II 2 D Ex td A21 IP67 T ¹⁾ °C Db	Ⓜ II 2 G Ex de IIC T ¹⁾ Gb (XM = indirect entry) Ⓜ II 2 G Ex d IIC T ¹⁾ Gb (UD = direct entry) Ⓜ II 2 D Ex td A21 IP67 T ¹⁾ °C Db
Marking accd. to IECEx	Ex de IIC T ¹⁾ Ex td A21 IP67 T ¹⁾ °C	Ex d / de IIC T ¹⁾ Ex td A21 IP67 T ¹⁾	
Permissible ambient temperature	-20 °C up to +55 °C -50 °C up to +55 °C (option)	-20 °C up to +55 °C -50 °C up to +55 °C (option)	-50 °C up to +55 °C
Rated voltage	max. 250 V	max. 250 V	220 - 240 V AC
Frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Power consumption	max. 200 VA	max. 500 VA	approx. 23 W
Protection class	I	I	I
Lamp / Illuminant	¹⁾	¹⁾	LED module with electronic driver
Rated luminous flux	¹⁾	¹⁾	
Rated luminous flux of the luminaire (typical, ± 10 %)			2113 lm (w/o reflector)/ 1798 lm (with reflector)
Lamp cap	E27 accord. IEC 60238	E40 accord. IEC 60238	
Light output ratio	75 %	75 %	100 %
Dimensions (L x W x H)	280 mm x Ø 245 mm (200 UD), 400 x Ø 225 mm (200 XM)	340 x Ø 300 mm (500 UD), 460 x Ø 300 mm (500 XM)	280 mm x Ø 245 mm
Connecting terminals	L, N, PE: 1 x 2.5 mm ² or 2 x 1.5 mm ² (UD), 2 x L, N, PE: 1 x 2.5 mm ² or 2 x 1.5 mm ² (UD), 2 x L, N, PE: 1 x 2.5 mm ² or 2 x 1.5 mm ² (UD), 2 x 2.5 mm ² (XM); PE ext. 2 x 6 mm ²	L, N, PE: 1 x 2.5 mm ² or 2 x 1.5 mm ² (UD), 2 x L, N, PE: 1 x 2.5 mm ² or 2 x 1.5 mm ² (UD), 2 x L, N, PE: 1 x 2.5 mm ² or 2 x 1.5 mm ² (UD), 2 x 2.5 mm ² (XM); PE ext. 2 x 6 mm ²	L, N, PE: 1 x 2.5 mm ² or 2 x 1.5 mm ² (UD), 2 x L, N, PE: 1 x 2.5 mm ² or 2 x 1.5 mm ² (UD), 2 x L, N, PE: 1 x 2.5 mm ² or 2 x 1.5 mm ² (UD), 2 x 2.5 mm ² (XM); PE ext. 2 x 6 mm ²
Enclosure colour	epoxy paint, body RAL 7032 / ring RAL 6005	epoxy paint, body RAL 7032 / cover RAL 7016 / ring RAL 6005	epoxy paint, body RAL 7032 / ring RAL 6005
Enclosure material	light alloy	light alloy	light alloy
Weight	8.2 kg (UD/ 9 kg (XM)	12.8 kg (UD)/ 13.6 kg (XM)	9.1 kg
Cable glands / gland plates / enclosure drilling	2 x 3/4" or M25 thread (Ex-d), 1 x plugged (UD), 2 x M25 thread Ex-e, 1 x plugged (XM)	2 x 3/4" or M25 thread (Ex-d), 1 x plugged (UD), 2 x M25 thread Ex-e, 1 x plugged (XM)	M25 thread (Ex-d), 1 x plugged (UD) 2 x M25 thread (Ex-e), 1 x plugged (XM)
Type of mounting	ceiling-/wall mounting	ceiling-/wall mounting	ceiling-/wall mounting
Degree of protection accd. to EN 60529	IP66	IP66	IP66
Protective cover / protective bowl	borosilicate glass	borosilicate glass	borosilicate glass, clear

¹⁾ see table luminaire data

Additional luminaire data EVI

Lamp	Power	Luminous flux ²⁾	Type	Temperature class II 2 G		max. surface temp. II 2 D	
				T _u ≤ 40 °C	T _u ≤ 55 °C	T _u ≤ 40 °C	T _u ≤ 55 °C
Incandescent lamp IGA 65	150 W	2200 lm	EVI 200	T4	T4	T 105 °C	T 120 °C
Incandescent lamp IGA 80	200 W	3100 lm	EVI 200	T4	T4	T 115 °C	T 130 °C
Incandescent lamp IGA 90	300 W	5000 lm	EVI 500	T4	T4	T 115 °C	T 130 °C
Incandescent lamp IGA 110	500 W	8400 lm	EVI 500	T3	T3	T 155 °C	T 170 °C

²⁾ depends on used lamps

4.4

Ex Pendant light fittings for high-pressure discharge lamps EV. / dHLS / EVZ

4 (Zone 1, 2, 21, 22)

Ex pendant light fittings for high-pressure discharge lamps

These EV, dHLS and EVZ luminaire series are designed for the use of high-pressure discharge lamps. Ballasts and lamps are located in a common housing. The flameproof enclosures are connected via an easy-to-mount Ex-e terminal compartment. The protective cover is made of borosilicate glass and is extremely impact and heat resistant. All external

screws are made of stainless steel. The lamp replacement is done by opening the PTFE coated connection ring. Both the glass dome and the connection ring are hinged for easy access. Depending on the type, the light fittings are certified for ambient temperatures from -45 °C up to 55 °C.



EV pendant light fitting with 2 housing sizes

The EV pendant light series is suitable for use with sodium or metal halide high-pressure discharge lamps. The small enclosure solution can be used with lamps up to 125 W. The large enclosure solution is suitable for lamps with a power consumption of up to 250 W.

dHLS – the robust pendant light

The robust dHLS pendant light fitting has been certified for hazardous areas in Zones 1 and 2 and is suitable for 250 W and 400 W high pressure lamps. The housing is made of a light alloy with a powder coating. Because of its high operation-

al safety, it has been used in chemical plants and on- and off-shore platforms for illuminating large areas and selective large objects for many years now. The light fitting is fitted with a dome-shaped glass cover and can also be fitted with an external reflector.

EVZ - highly versatile

The EVZ pendant light fittings are available in 2 versions for 70 W to 150 W and 150 W to 400 W. The luminaire can be fitted with a swivel bracket for wall or pole mounting. Two external reflectors and a protective guard are available as an option.

Features

- Various enclosure-size solutions
- For high-pressure discharge lamps
- Robust design for harsh environments
- Large Ex-e terminal compartment
- Wide ambient temperature range depending on the version from -45 °C up to +55 °C
- CU-Certificate for Eurasian Economic Community available
- Meets the highest standards of corrosion protection and mechanical strength



Ordering details

Type	Lamp / Illuminant	Rated luminous flux ²⁾	Weight	Metal thread/ plastic cable gland	Threaded plug	Dust cap	Order No.
EV. ...							
EVS 70 ZM	HSE 70 W	5600 lm	14 kg	2 x M25	1 x M25 Ex-e	x	NOR 000 115 110 880
EVS 70 ZM, -45 °C up to +55 °C	HSE 70 W	5600 lm	14 kg	2 x M25	1 x M25 Ex-e	x	NOR 000 115 110 886
EVS 150 ZM	HSE 150 W	14000 lm	22.4 kg	2 x M25	1 x M25 Ex-e	x	NOR 000 115 110 883
EVS 150 ZM, -45 °C up to +55 °C	HSE 150 W	14000 lm	22.4 kg	2 x M25	1 x M25 Ex-e	x	NOR 000 115 110 887
EVS 250 ZM	HSE 250 W	25000 lm	22.4 kg	2 x M25	1 x M25 Ex-e	x	NOR 000 115 110 882
EVS 250 ZM, -45 °C up to +55 °C	HSE 250 W	25000 lm	22.4 kg	2 x M25	1 x M25 Ex-e	x	NOR 000 115 110 888
EVH 250 ZM	HIE 250 W	17000 lm	22.4 kg	2 x M25	1 x M25 Ex-e	x	NOR 000 115 110 945
EVH 250 ZM, -45 °C up to +55 °C	HIE 250 W	17000 lm	22.4 kg	2 x M25	1 x M25 Ex-e	x	NOR 000 115 110 889
dHLS 85 ...							
dHLS 85250 HSE IND	HSE 250 W	25000 lm	30 kg	1 x M25 plastic	1 x M25 Ex-e	x	CGS 123 8688 P2001
dHLS 85250 HSE KOMP ¹⁾	HSE 250 W	25000 lm	37 kg	1 x M25 plastic	1 x M25 Ex-e	x	CGS 123 8688 P3001
dHLS 85400 HSE IND	HSE 400 W	48000 lm	30 kg	1 x M25 plastic	1 x M25 Ex-e	x	CGS 123 8788 P2001
dHLS 85400 HSE KOMP ¹⁾	HSE 400 W	48000 lm	37 kg	1 x M25 plastic	1 x M25 Ex-e	x	CGS 123 8788 P3001
dHLS 85400 HSE IND -50 °C up to +50 °C	HSE 400 W	48000 lm	30 kg	1 x M25 plastic	1 x M25 Ex-e	x	CGS 123 8788 P2002
EVZ small enclosure							
EVZIS2M075 - 230 V AC	HSE 70 W	5600 lm	10 kg	2 x M25	1 x M25 Ex-e	x	CCL 1077 028 /S6E
EVZIS2M076 - 240 V AC	HSE 70 W	5600 lm	10 kg	2 x M25	1 x M25 Ex-e	x	CCL 1077 040 /S6E
EVZIS2M105 - 230 V AC	HSE 100 W	8800 lm	11 kg	2 x M25	1 x M25 Ex-e	x	CCL 1077 088 /S6E
EVZIS2M106 - 240 V AC	HSE 100 W	8800 lm	11 kg	2 x M25	1 x M25 Ex-e	x	CCL 1077 100 /S6E
EVZIS2M155 - 230 V AC	HSE 150 W	14000 lm	12 kg	2 x M25	1 x M25 Ex-e	x	CCL 1077 148 /S6E
EVZIS2M156 - 240 V AC	HSE 150 W	14000 lm	12 kg	2 x M25	1 x M25 Ex-e	x	CCL 1077 160 /S6E
EVZIM2M075 - 230 V AC	HIE 70 W	5100 lm	10 kg	2 x M25	1 x M25 Ex-e	x	CCL 1077 034 /S6E
EVZIM2M076 - 240 V AC	HIE 70 W	5100 lm	10 kg	2 x M25	1 x M25 Ex-e	x	CCL 1077 046 /S6E
EVZIM2M105 - 230 V AC	HIE 100 W	7800 lm	11 kg	2 x M25	1 x M25 Ex-e	x	CCL 1077 094 /S6E
EVZIM2M106 - 240 V AC	HIE 100 W	7800 lm	11 kg	2 x M25	1 x M25 Ex-e	x	CCL 1077 106 /S6E
EVZIM2M155 - 230 V AC	HIE 150 W	11000 lm	12 kg	2 x M25	1 x M25 Ex-e	x	CCL 1077 154 /S6E
EVZIM2M156 - 240 V AC	HIE 150 W	11000 lm	12 kg	2 x M25	1 x M25 Ex-e	x	CCL 1077 166 /S6E

¹⁾ with installed ballast enclosure on top cos $\phi \geq 0.9$

²⁾ depends on used lamps

Scope of delivery without lamp and fixing accessories, if not stated otherwise.

Metal cable glands see catalogue part 2: 2.3.12 ff



Ordering details

Type	Lamp / Illuminant	Rated luminous flux ²⁾	Weight	Metal thread	Threaded plug	Dust cap	Order No.
EVZ large enclosure							
EVZIS2M255 - 230 V AC	HSE 250 W	25000 lm	16 kg	2 x M25	1 x M25 Ex-e	x	CCL 1075 088 /S6E
EVZIS2M256 - 240 V AC	HSE 250 W	25000 lm	16 kg	2 x M25	1 x M25 Ex-e	x	CCL 1075 100 /S6E
EVZIS2M405 - 230 V AC	HSE 400 W	48000 lm	18 kg	2 x M25	1 x M25 Ex-e	x	CCL 1075 136 /S6E
EVZIS2M406 - 240 V AC	HSE 400 W	48000 lm	18 kg	2 x M25	1 x M25 Ex-e	x	CCL 1075 142 /S6E
EVZIS2M605 - 230 V AC	HST 600 W	90000 lm	20 kg	2 x M25	1 x M25 Ex-e	x	CCL 1075 196 /S6E
EVZIS2M606 - 240 V AC	HST 600 W	90000 lm	20 kg	2 x M25	1 x M25 Ex-e	x	CCL 1075 202 /S6E
EVZIM2M255 - 230 V AC	HIE 250 W	19000 lm	16 kg	2 x M25	1 x M25 Ex-e	x	CCL 1075 094 /S6E
EVZIM2M256 - 240 V AC	HIE 250 W	19000 lm	16 kg	2 x M25	1 x M25 Ex-e	x	CCL 1075 106 /S6E
EVZIM2M405 - 230 V AC	HIT 400 W	33000 lm	18 kg	2 x M25	1 x M25 Ex-e	x	CCL 1075 166 /S6E
EVZIM2M406 - 240 V AC	HIT 400 W	33000 lm	18 kg	2 x M25	1 x M25 Ex-e	x	CCL 1075 172 /S6E

²⁾ depends on used lamps

Accessories

Type	Content	Application	OU	Order No.
G. EV 200	Wire guard	EV.. small enclosure	1	CHR 2100 3
G. EV 500	Wire guard	EV.. large enclosure	1	CHR 8208 FS
PC. EV 200	External reflector	EV.. 70-125 ..	1	NOR 000 005 110 894
PC. EV 500	External reflector	EV.. 150-250 ..	1	NOR 000 005 110 901
KEY, EV	Luminaire key	EV..	1	NOR 000 005 110 886
CEV/AB	Eye bolt	EV..	1	NOR 000 005 110 852
SPU.EV/AB	Wall mounting bracket, adjustable	EV..	1	NOR 000 005 110 951
AS.EV	Ceiling bracket	EV..	1	NOR 000 005 110 828
BC. EV	Pole mounting bracket for poles Ø 44 - 64 mm	EV..and EVZ	1	NOR 000 005 110 836
SP. EV 200	Wall mounting bracket	EV 70..-125 ..	1	NOR 000 005 110 935
SP. EV 500	Wall mounting bracket	EV 150..-250 ..	1	NOR 000 005 110 943
RS	Eye bolt M10 (10 pcs.) galvanised	dHLS 85	1	GHG 690 1921 R0003
L 218	Mounting bracket for inductive version	dHLS 85	1	GHG 690 1913 R0001
L 430	Mounting bracket for compensated version	dHLS 85	1	GHG 690 1913 R0002
AR	External reflector metal, powder coating white	dHLS 85	1	CGS 223 7990 P1000
U-bracket	for ceiling- and wall mounting	EVZ - small enclosure	1	CCL 1076 001
U-bracket	for ceiling- and wall mounting	EVZ - large enclosure	1	CCL 1076 002
RA725	Asymmetrical external reflector	EVZ - small enclosure	1	750 283
RD725	Symmetrical external reflector	EVZ - small enclosure	1	7502 86
RA	Asymmetrical external reflector	EVZ - large enclosure	1	CHR 9973
RD	Symmetrical external reflector	EVZ - large enclosure	1	CHR 9972
Wire guard	Stainless steel SS316	EVZ - small enclosure	1	CHR 8138
Wire guard	Stainless steel SS316	EVZ - large enclosure	1	CHR 7870
Eye bolt		EVZ	1	CHR 6196
HSE 70 W	High pressure sodium lamp 70 W E27	EVS 70, EVZIS2M07	1	3 2475 900 012
HSE 100 W	High pressure sodium lamp 100 W E40	EVZIS2M10	1	3 2475 900 013
HSE 150 W	High pressure sodium lamp 150 W E40	EVS 150, EVZIS2M15	1	3 2475 900 014
HSE 250 W	High pressure sodium lamp 250 W E40	EVS 250, dHLS 85250, EVZIS2M25	1	CGS 3238 600 P1009
HSE 400 W	High pressure sodium lamp 400 W E40	EVS 4000, dHLS 85400, EVZIS2M40	1	CGS 3238 700 P1009
HSE 600 W	High pressure sodium lamp 600 W E40	EVZIS2M60	1	on request

Scope of delivery without lamp and fixing accessories, if not stated otherwise. Metal cable glands see catalogue part 2: 2.3.12 ff





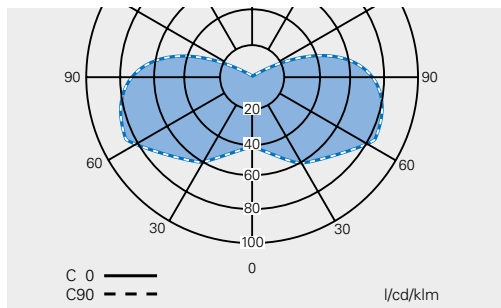
Type	Content	Application	OU	Order No.
HIE 70 W	High pressure metal halide lamp 70 W E27	EVZIM2M07	1	3 2475 900 010
HIE 100 W	High pressure metal halide lamp 100 W E27	EVZIM2M10	1	3 2475 900 011
HIE 150 W	High pressure metal halide lamp 150 W E40	EVZIM2M15	1	on request
HIE 250 W/	High pressure metal halide lamp 250 W E40	EVH 250, EVZIM2M25	1	3 2475 900 017
HIE 400 W/	High pressure metal halide lamp 400 W E40	EVZIM2M40	1	3 2475 900 018

Scope of delivery without lamp and fixing accessories, if not stated otherwise.
Metal cable glands see catalogue part 2: 2.3.12 ff

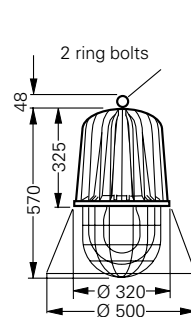
Other lamps on request

4

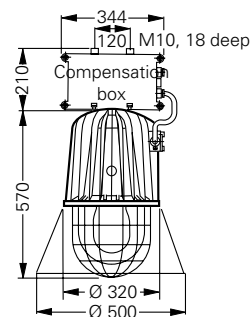
Polar curve without external reflector dHLS



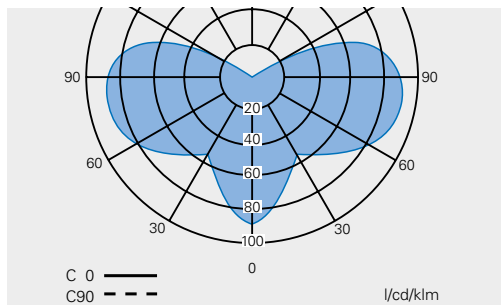
dHLS 85 ... ind.



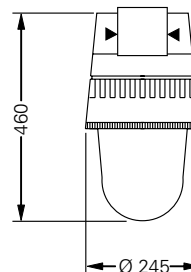
dHLS 85 ... comp.



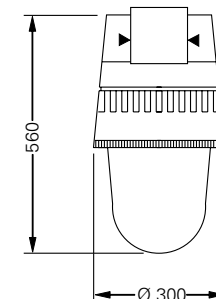
Polar curve EV 200/500 without external reflector



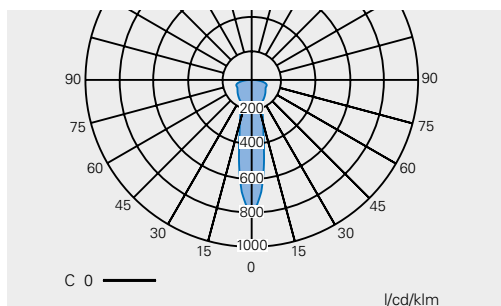
EV ... 70 - 125 ZM



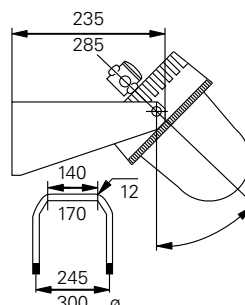
EV ... 150 - 250 ZM



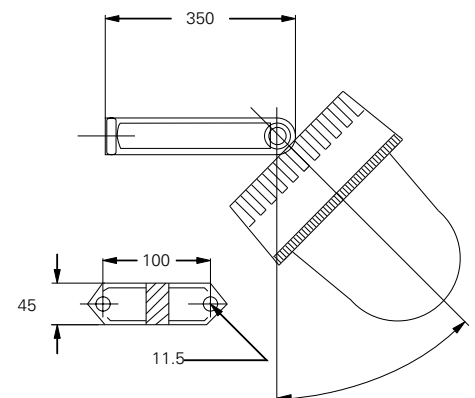
Polar curve EV 200/500 with external reflector



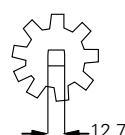
SPREV 200/500



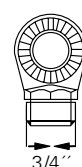
SPU EV/AB



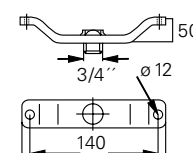
KEY.EV



CEV/AB



AS.EV



BC.EV



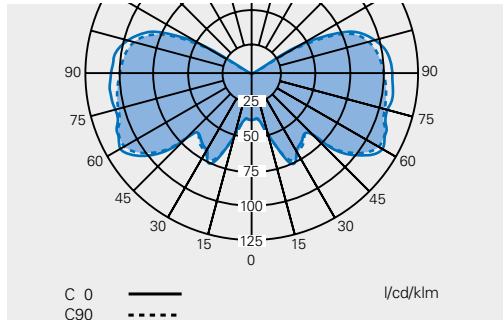
Dimensions in mm

4.4

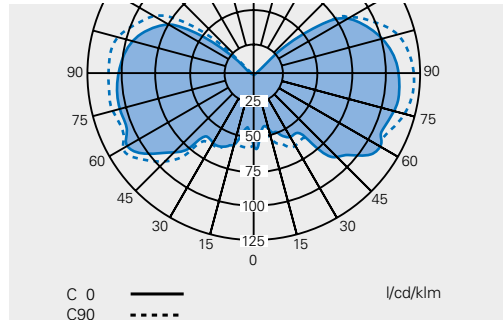
Polar curve / Dimension drawing

Pendant light fittings

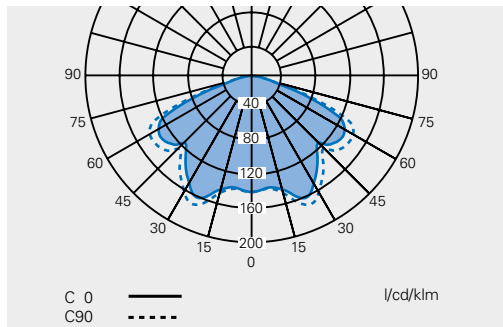
Polar curve EVZ small enclosure



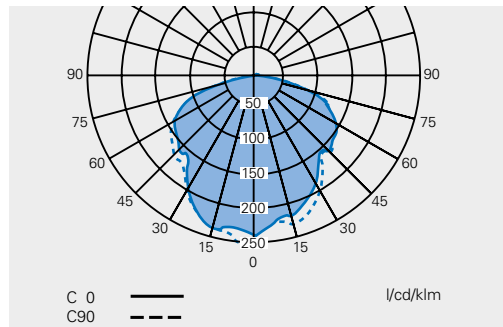
Polar curve EVZ large enclosure



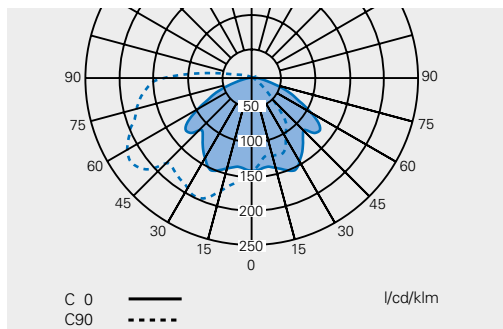
Polar curve EVZ small enclosure with reflector RD



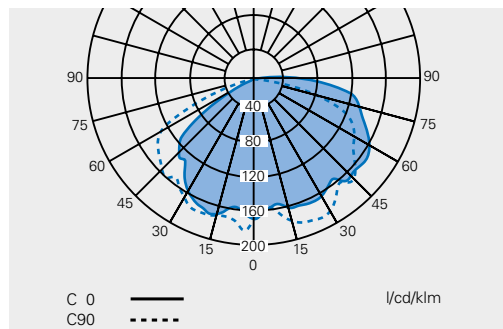
Polar curve EVZ large enclosure with reflector RD



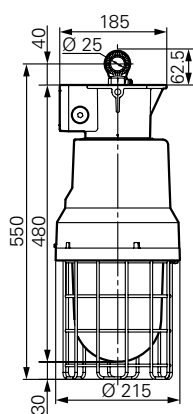
Polar curve EVZ small enclosure with reflector RA



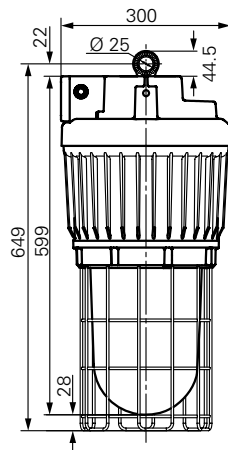
Polar curve EVZ large enclosure with reflector RA



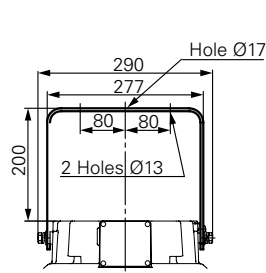
EVZ small enclosure



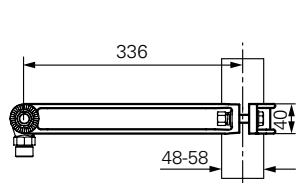
EVZ large enclosure



U-bracket



Bracket for pole mounting



Dimensions in mm



Technical data

4

	EV. ≤ 125 W (small enclosure)	EV. ≤ 250 W (large enclosure)
EC-Type Examination Certificate	LOM 02 ATEX 2012 X	LOM 02 ATEX 2012 X
IECEx Certificate of Conformity	IECEx BKI 07.0031X	IECEx BKI 07.0031X
Marking accd. to 2014/34/EU	⚡ II 2 G Ex de IIC T ¹⁾ Db ⚡ II 2 D Ex tb IIIC T...°C Db	⚡ II 2 G Ex de IIC T ¹⁾ Db ⚡ II 2 D Ex tb IIIC T...°C Db
Marking accd. to IECEx	Ex de IIC T ¹⁾ Gb Ex tD A21 IP67 T ¹⁾	Ex de IIC T ¹⁾ Ex tD A21 IP67 T ¹⁾
Permissible ambient temperature	-20 °C up to +55 °C -45 °C up to +55 °C (option)	-20 °C up to +55 °C -45 °C up to +55 °C (option)
Rated voltage	230 V AC	230 V AC
Frequency	50 Hz	50 Hz
Power factor cos φ	≥ 0.85	≥ 0.85
Circuit	electromagnetical	electromagnetical
Protection class	I	I
Lamp / Illuminant	HME 125 W, HSE 70 W	HME 250 W, HSE 150 - 250 W, HIE 250 W
Lamp name	high pressure sodium lamp	high pressure sodium lamp, Metal-halide lamp
Rated luminous flux	¹⁾	¹⁾
Lamp cap	E27 accord. IEC 60238	E40 accord. IEC 60238
Light output ratio	76 %	76 %
Dimensions (L x W x H)	480 mm x Ø 245 mm	560 mm x Ø 300 mm
Connecting terminals (Ex-e)	L, N, PE: 2 x 2.5 mm ² PE external 2 x 6 mm ²	L, N, PE: 2 x 2.5 mm ² PE external 2 x 6 mm ²
Enclosure colour	epoxy paint, body RAL 7032 / cover RAL 7016 / ring RAL 6005	epoxy paint, body RAL 7032 / cover RAL 7016 / ring RAL 6005
Enclosure material	light alloy	light alloy
Weight	14.1 kg	22.4 kg
Cable glands / gland plates / enclosure drilling	2 x M25 thread (Ex-e), 1 x plugged	2 x M25 thread (Ex-e), 1 x plugged
Type of mounting	ceiling mounting	ceiling mounting
Degree of protection accd. to EN 60529	IP66	IP66
Protective cover / protective bowl	borosilicate glass	borosilicate glass

¹⁾ see table luminaire data

Additional luminaire data EV.

Lamp	Power	luminous flux ²⁾	Type	Enclosure size		Temperature class II 2 G		max. surface temp. II 2 D	
				small	large	T _u ≤ 40 °C	T _u ≤ 55 °C	T _u ≤ 40 °C	T _u ≤ 55 °C
High pressure sodium lamp HSE	70 W	5600 lm	EVS 70 ZM	X		T5	T4	T95°C	T110°C
High pressure sodium lamp HSE	150 W	14000 lm	EVS 150 ZM		X	T5	T4	T90°C	T105°C
High pressure sodium lamp HSE	250 W	25000 lm	EVS 250 ZM		X	T4	T4	T115°C	T130°C
Metal halide lamp HIE	250 W	19000 lm	EVH 250 ZM		X	T4	T3	T125°C	T140°C

²⁾ depends on used lamps



4 Technical data

dHLS 85

EC-Type Examination Certificate	DMT 03 ATEX E 039
IECEx Certificate of Conformity	IECEx BVS 11.0066
Marking accd. to 2014/34/EU	II 2 G Ex de IIC T3 Gb
Marking accd. to IECEx	Ex de IIC T3 Gb
Permissible ambient temperature	-20 °C up to +50 °C / -20 °C up to +55 °C (250 W) -50 °C up to +50 °C (option)
Rated voltage	230 V AC
Frequency	50 Hz
Power factor cos ϕ	0.5 ind. / 0.9 comp. ²⁾
Circuit	inductive circuit / compensated circuit ²⁾
Protection class	I
Lamp / Illuminant	HSE/HME 250 - 400 W
Lamp name	Mercury vapour, high pressure sodium lamp
Rated luminous flux	¹⁾
Lamp cap	E40 accord. IEC 60238
Connecting terminals	L, N, PE max. 2 x 2.5 mm ²
Enclosure material	light alloy with powder coating
Weight	30 kg
Cable glands / gland plates / enclosure drilling	1 x M25 x 1.5 for cables from Ø 8 - 17 mm 1 x M25 x 1.5 with blanking plug
Type of mounting	ceiling mounting
Degree of protection accd. to EN 60529	IP65
Protective cover / protective bowl	borosilicate glass

¹⁾ see table luminaire data

²⁾ with installed ballast enclosure on top

Additional luminaire data dHLS 85

Lamp	Power	luminous flux ²⁾	Type
High pressure sodium lamp HSE	250 W	25000 lm	dHLS 85250
High pressure sodium lamp HSE	400 W	48000 lm	dHLS 85400



Technical data

	EVZ (small enclosure)	EVZ (large enclosure)
EC-Type Examination Certificate	TÜV 12 ATEX 7169X	TÜV 12 ATEX 7169X
IECEx Certificate of Conformity	IECEx CQM 11.0002	IECEx CQM 11.0002
Marking accd. to 2014/34/EU	II 2 G Ex d e IIC T* Gb¹⁾ II 2 D Ex tD A21 IP66 T*¹⁾	II 2 G Ex d e IIC T* Gb¹⁾ II 2 D Ex tD A21 IP66 T*¹⁾
Marking accd. to IECEx	Ex d e IIC T* Gb¹⁾ Ex tD A21 IP66 T*¹⁾	Ex d e IIC T* Gb¹⁾ Ex tD A21 IP66 T*¹⁾
Permissible ambient temperature	-40 °C up to +55 °C	-40 °C up to +55 °C
Frequency	50 Hz	50 Hz
Power factor cos φ	≥ 0.9	≥ 0.9
Protection class	I	I
Lamp / Illuminant	HSE 70 - 150 W, HIE 70 - 150 W	HSE 250 - 600 W, HIE 250 - 400 W
Lamp name	High pressure sodium lamp, Metal halide lamp	High pressure sodium lamp, Metal halide lamp
Rated luminous flux	¹⁾	¹⁾
Lamp cap	E27 accord. IEC 60238 (HSE 70 W, HIE. 70 - 150 W) E40 accord. IEC 60238 (HSE 100 - 150 W)	E40 accord. IEC 60238
Dimensions (L x W x H)	Ø 215 mm x 480 mm	Ø 300 mm x 599 mm
Connecting terminals (Ex-e)	3 x 2 x 4 mm ² (L, N, PE) max. 2 Leiter	3 x 2 x 4 mm ² (L, N, PE) max. 2 Leiter
Enclosure colour	grey	grey
Enclosure material	copper free aluminium	copper free aluminium
Weight	14.1 kg	22.4 kg
Cable glands / gland plates / enclosure drilling	2 x M25 thread, 1 x M25 Ex-e screw plug	2 x M25 thread, 1 x M25 Ex-e screw plug
Type of mounting	ceiling mounting	ceiling mounting
Degree of protection accd. to EN 60529	IP66	IP66
Protective cover / protective bowl	toughened glass	toughened glass

¹⁾ see table luminaire data

Additional luminaire data EVZ

Lamp	Power	luminous flux ²⁾	Type	Temperature class II 2 G		max. surface temp. II 2 D	
				T _u ≤ 40 °C	T _u ≤ 55 °C	T _u ≤ 40 °C	T _u ≤ 55 °C
High pressure sodium lamp HSE	70 W	5600 lm	EVZIS*07*	T5	T4	83 °C	98 °C
High pressure sodium lamp HSE	100 W	8800 lm	EVZIS*10*	T5	T4	94 °C	109 °C
High pressure sodium lamp HSE	150 W	14000 lm	EVZIS*15*	T4	T4	113 °C	128 °C
High pressure sodium lamp HSE	250 W	25000 lm	EVZIS*25*	T3	T3	134 °C	149 °C
High pressure sodium lamp HSE	400 W	48000 lm	EVZIS*40*	T3	T3	146 °C	161 °C
High pressure sodium lamp HSE	600 W	90000 lm	EVZIS*60*	T3	T3	167 °C	182 °C
Metal halide lamp HIE	70 W	5100 lm	EVZIM*07*	T5	T4	83 °C	98 °C
Metal halide lamp HIE	100 W	7800 lm	EVZIM*10*	T4	T4	97 °C	112 °C
Metal halide lamp HIE	150 W	11000 lm	EVZIM*15*	T4	T4	111 °C	126 °C
Metal halide lamp HIE	250 W	19000 lm	EVZIM*25*	T3	T3	132 °C	147 °C
Metal halide lamp HIE	400 W	33000 lm	EVZIM*40*	T3	T3	167 °C	182 °C

²⁾ depends on used lamps

Ex-Floodlight PXLED

Complete series of LED floodlights replacing 100 up to 600 W conventional light sources (Zone 1, 2, 21, 22)

4

Lighting under harsh conditions

The new modular LED floodlight series PXLED is suited for nearly every kind of lighting task in hazardous areas, including applications in on- and offshore, heavy industrial, chemical, petrochemical, oil and gas, pharmaceuticals, shipyards, dockyards, power generation, paper mills and wastewater treatment indoor and outdoor with potentially explosive areas under harsh conditions like vibrations, dust, moisture or corrosive atmospheres and extreme temperatures. The PXLED comes with a standard U-shaped mounting bracket for ceiling and wall mounting.

Replacement of conventional light fittings up to 600 W

With a luminous flux from 5,000 lm up to 32,000 lm this floodlight series can be used to replace nearly every floodlight with conventional light sources with an equivalent power consumption from 70 W up to 600 W.

High efficient LED technology

High efficient power LED module with 110 Lumen/Watt enables up to 70 % energy-cost savings compared to conventional HID lamp.

Safety first

All PXLED multi-module floodlights from size 10L to 30L are equipped with a multichannel LED driver. This driver provides for each LED-module a separate power channel circuit. Even if one circuit fails, all other LED-modules are still working.

Modular design - just use the size you need

Thanks to the modular design of the PXLED series you can exactly choose the lumen output you need. There is no need to over/underdesign your lighting project. Six sizes are available from nominal 5.000 lm to more than 30.000 lm with a step-wide of 5000 lm.

Easy to install

A stainless steel swivel bracket with adjustable setting angle allows an easy alignment of the floodlight. A fixing screw



secures the alignment. The swivel bracket provides up to five Ø13 mm fixing holes for a safe assembly.

Together with two cable gland a large terminal compartment in Ex-e design allows cost saving through-wiring without additional terminal boxes.

The used Ex-e terminals can clamp up to 6 mm² wiring.



Internal and external PE-terminals allows nearly all cabling technique.



5 YEAR WARRANTY

Features

- High efficiency: up to 110 lm/W
- Operating temperature -50 °C up to +55 °C
- Suitable for Explosion Group IIC / IIIC environments
- Broad range of light output from 5,000 lm up to 32,000 lm
- Wide and narrow beam pattern (asymmetric beam on request)
- Long lifetime
- Ex-e compartment for driver & terminal for easy installation and maintenance

Designed for long lifetime

High ambient temperatures can drive the LED chip-temperature into a not permissible range. This would reduce the life-span of the LEDs tremendously. Eaton provides an enclosure design with large cooling pipes and a innovated heat reduction design.



Tests, done under the worst conditions have shown, that the LED-chip temperature is always below critical values. The designed life span for the LED (L80) is more than 60,000 h even at +55°C ambient temperature

The Eaton LED driver is especially designed for the harsh conditions of hazardous environments. According to EN 61000-4-5 an electronic device must withstand a surge pulse of 1 kV between L - N, our LED driver is designed to withstand 4 kV between L - N and L, N - PE.



All electronic components with self-heating are over dimensioned to ensure a maximum maintenance-free period. The driver has an own Ex-certification "q" and is mounted within the Ex-e compartment.

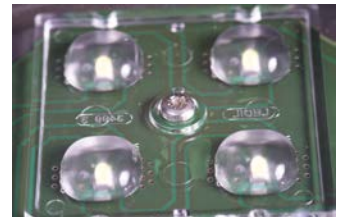
In the very unlikely event of a driver failure this unit can be exchanged separately from the floodlight.

Light distribution for various applications

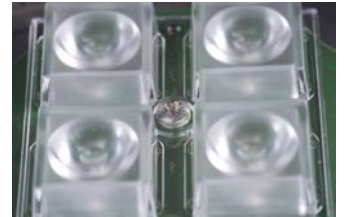
Beside the various lumen output packages, different light distributions can be realised with the PXLED-series.

A wide beam pattern as well as a narrow beam pattern is realized by the use of special designed lens caps for the LEDs. In addition, asymmetric light distributions are also available for special applications.

With a light transmission factor of more that 90 % we are able to offer a system efficiency of more than 110 lm/W.



wide beam lens caps

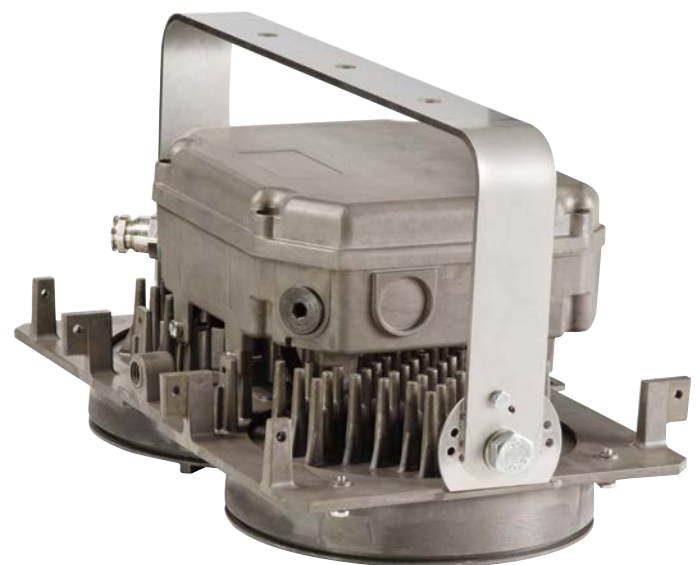
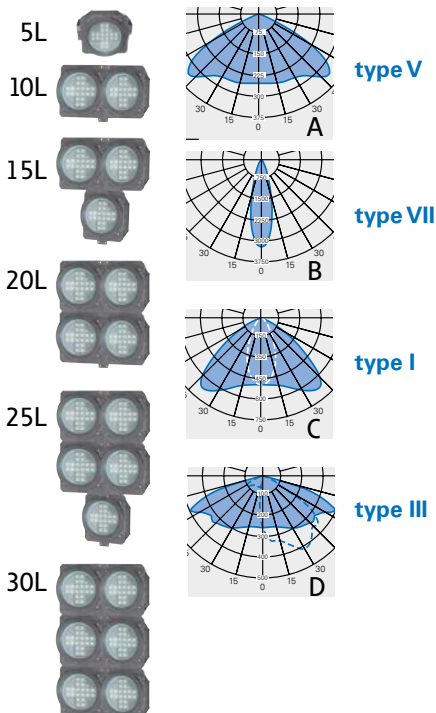


narrow beam lens caps

Type key for PXLED floodlight series

PXLED 10L A 7 57 C T0 E01

Type of fitting:	Size of fitting ¹⁾ :	Light distribution:	CRI ²⁾ :	CCT ³⁾ :	Front glass:	Terminals:	Cable entries/glands:
PXLED	5L = 5000 lm 10L=10000 lm 15L=15000 lm 20L=20000 lm 25L=25000 lm 30L=30000 lm	A = wide beam B = narrow beam C = asymmetric1 D = asymmetric2	7 = CRI >70 X = other on request	57 = 5700 K XX = other on request	C = clear F = frosted on request	T0 = type 2410 - max. 6 mm ² TX= others on request	E01= 2 x M25 metal gland type ADE 1F2 E05= 2 x M25 plastic threaded plug E11= 1 x M25 metal gland type ADE 1F2, 1 x M25 plastic threaded plug EXX= others on request



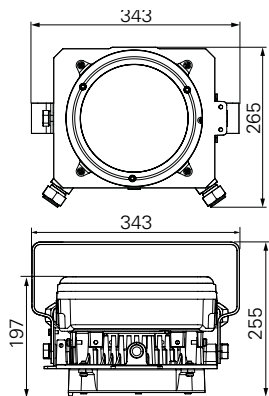
1) the lumen value is a design value and will not show the actual lumen output
2) CRI = Colour Rendering Index
3) CCT= Correlated Colour Temperature

Ordering details PXLED

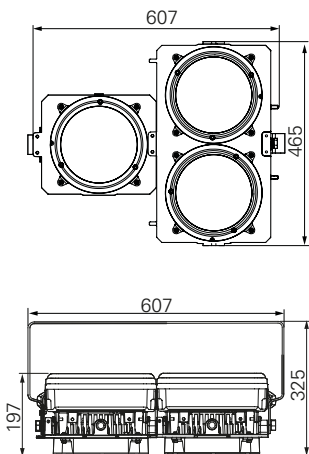
	Type	Lamp / illuminant	Light distribution *)	Description / Power	Cable glands	Order No..
	PXLED 5L B 757 C E01	LED system 5.386 lm	narrow beam	LED floodlight with swivel bracket 49 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	1 3042 110 001
	PXLED 5L B 757 C E05				2 x M25 plastic threaded plug	1 3042 110 005
	PXLED 5L A 757 C E01	LED system 5.207 lm	wide beam	LED floodlight with swivel bracket 49 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	1 3042 111 001
	PXLED 5L A 757 C E05				2 x M25 plastic threaded plug	1 3042 111 005
	PXLED 10L B 757 C E01	2 LED systems 10.772 lm	narrow beam	LED floodlight with swivel bracket 98 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	1 3042 210 001
	PXLED 10L B 757 C E05				2 x M25 plastic threaded plug	1 3042 210 005
	PXLED 10L A 757 C E01	2 LED systems 10.414 lm	wide beam	LED floodlight with swivel bracket 98 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	1 3042 211 001
	PXLED 10L A 757 C E05				2 x M25 plastic threaded plug	1 3042 211 005
	PXLED 15L B 757 C E01	3 LED systems 16.158 lm	narrow beam	LED floodlight with swivel bracket 147 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	1 3042 310 001
	PXLED 15L B 757 C E05				2 x M25 plastic threaded plug	1 3042 310 005
	PXLED 15L A 757 C E01	3 LED systems 15.621 lm	wide beam	LED floodlight with swivel bracket 147 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	1 3042 311 001
	PXLED 15L A 757 C E05				2 x M25 plastic threaded plug	1 3042 311 005
	PXLED 20L B 757 C E01	4 LED systems 21.544 lm	narrow beam	LED floodlight with swivel bracket 196 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	1 3042 410 001
	PXLED 20L B 757 C E05				2 x M25 plastic threaded plug	1 3042 410 005
	PXLED 20L A 757 C E01	4 LED systems 20.828 lm	wide beam	LED floodlight with swivel bracket 196 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	1 3042 411 001
	PXLED 20L A 757 C E05				2 x M25 plastic threaded plug	1 3042 411 005
	PXLED 25L B 757 C E01	5 LED systems 26.930 lm	narrow beam	LED floodlight with swivel bracket 245 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	1 3042 510 001
	PXLED 25L B 757 C E05				2 x M25 plastic threaded plug	1 3042 510 005
	PXLED 25L A 757 C E01	5 LED systems 26.035 lm	wide beam	LED floodlight with swivel bracket 245 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	1 3042 511 001
	PXLED 25L A 757 C E05				2 x M25 plastic threaded plug	1 3042 511 005
	PXLED 30L B 757 C E01	6 LED systems 32316 lm	narrow beam	LED floodlight with swivel bracket 294 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	1 3042 610 001
	PXLED 30L B 757 C E05				2 x M25 plastic threaded plug	1 3042 610 005
	PXLED 30L A 757 C E01	6 LED systems 31242 lm	wide beam	LED floodlight with swivel bracket 294 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	1 3042 611 001
	PXLED 30L A 757 C E05				2 x M25 plastic threaded plug	1 3042 611 005

*) Asymmetric light distribution on request

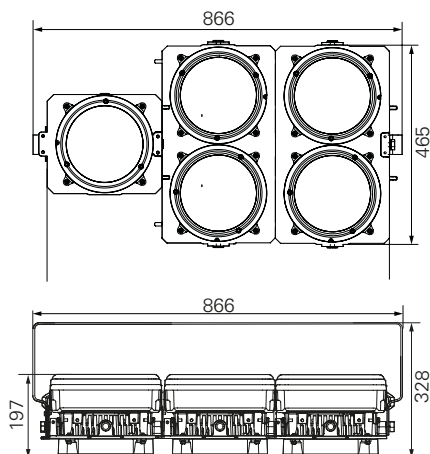
PXLED 5L



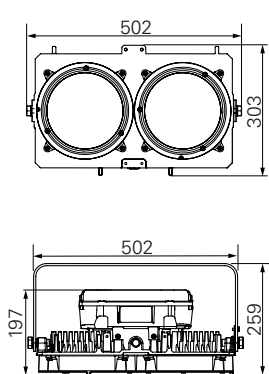
PXLED 15L



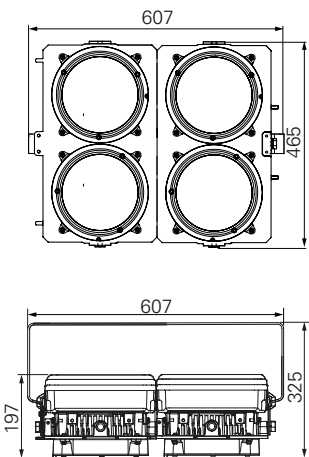
PXLED 25L



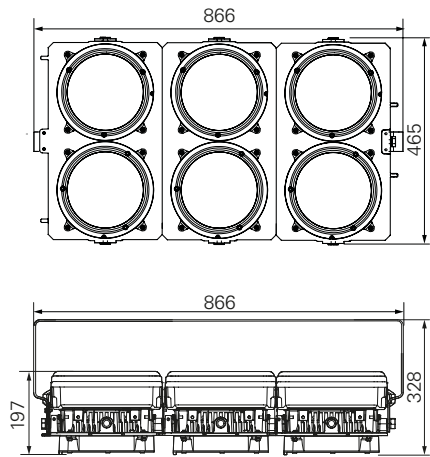
PXLED 10L



PXLED 20L

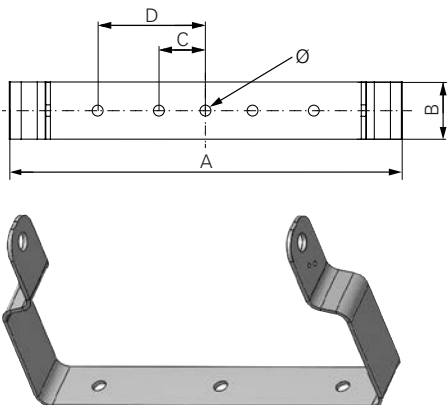


PXLED 30L



Dimensions in mm

Swivel bracket



Swivel bracket for PXLED - Dimensions

Dimensions in mm	A	B	C	D	Ø
PXLED 05	343	50	120	-	13
PXLED 10	476	50	120	-	13
PXLED 15	606	50	120	-	13
PXLED 20	606	50	120	-	13
PXLED 25	858	50	120	270	13
PXLED 30	858	50	120	270	13

Technical data

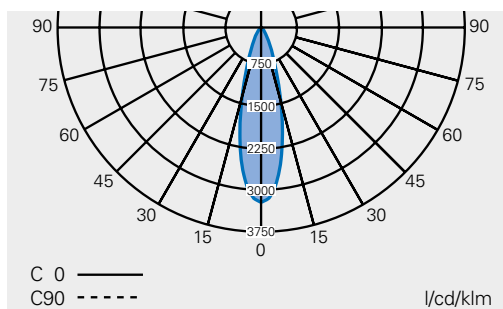
	PXLED 5L	PXLED 10L	PXLED 15L	PXLED 20L	PXLED 25L	PXLED 30L
Type Examination Certificate	BVS 17 ATEX E 013 X					
IECEx Certificate of conformity	IECEx BVS 17.0004 X					
Marking accd. 2014/34/EU	II 2 G Ex db eb op is q IIC T4 Gb/ II 2 D Ex tb op is IIIC T100°C Db					
Marking accd. to IECEx	Ex db eb op is q IIC T4 Gb/ Ex tb op is IIIC T100°C Db					
Certification accd. to TR CU 012/2011 EAC ¹⁾	RU C-DE.AA87.B.00594					
Permissible ambient temperature	-50 °C up to +55 °C					
LED lifetime L80	>200,000 h @ 25 °C / 60,000 h @ +55 °C					
Driver lifetime C10	>100,000 h @ 25 °C / 60,000 h @ +55 °C					
Rated voltage	110 - 277 V AC / 127 - 270 V DC					
Rated current ²⁾	0.24 A	0.48 A	0.72 A	0.96 A	1.20 A	1.44 A
Frequency	0/50 - 60 Hz					
Power factor cos φ ¹⁾	≥ 0.95					
Circuit	Electronic driver					
Protection class	I					
Light distribution	Wide beam and narrow beam (asymmetric beam on request)					
Light colour / CRI	5700 K / R _a >70 (other colours on request)					
Enclosure colour	Dark grey					
Connecting terminals	6 poles standard (L, L1, L2, L3, N, PE / up to 6 mm ² / others on request)					
Enclosure material	Anodized copper-free Aluminium					
Weight	9.9 kg	14.4 kg	24.3 kg	28.7 kg	38.5 kg	41.1 kg
Cable glands / gland plates / enclosure drilling	2 x M25 (Ex-e) metal thread nickel plated (E01) or 2 x M25 (Ex-e) threaded plug (E05) (others on request)					
Degree of protection accd. to EN 60529	IP66/67 (coming soon)					
Protective cover / protective bowl	Toughened glass, clear (frosted on request)					
Swivel bracket	AlSi 316L stainless steel					

¹⁾ Please ask our sales service for the special Order No.

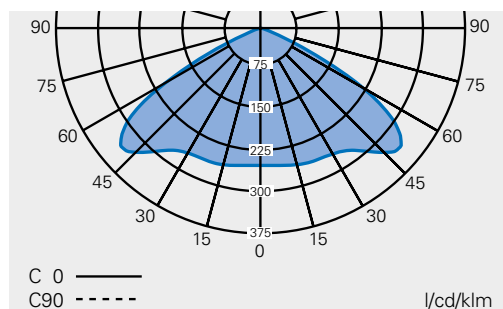
²⁾ Typical value at 230 V

Polar curve

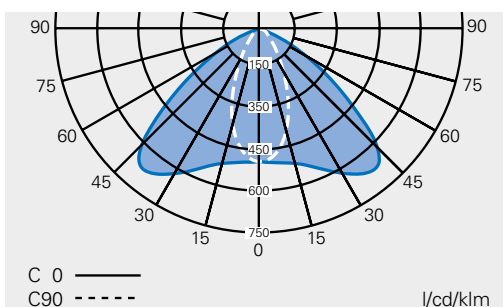
Polar curve PXLED 5L - 30L, narrow beam - type VII



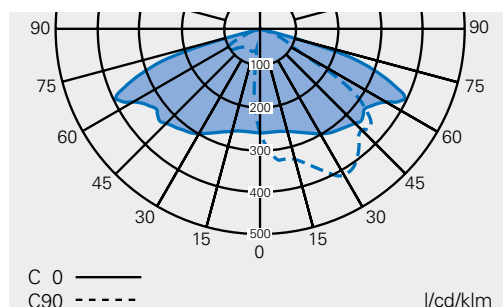
Polar curve PXLED 5L - 30L, wide beam - type V



Polar curve PXLED 5L - 30L, asymmetric - type I



Polar curve PXLED 5L - 30L, asymmetric - type III



Marine/Offshore



Cold environment



Industrial production area



Heavy Industry



Oil & Gas



Pharmaceutical industry



Refineries



Extreme Conditions



Chemical industry



4.6

Ex Floodlights for high-pressure discharge lamps, series PX 04 and FLT 10

4 (Zone 1, 2, 21, 22)

The powerful floodlights for harsh environments

Thanks to the high degree of protection IP66, the robust floodlights of the series PX 04 and FLT 10 for hazardous areas are suitable for the illumination of large areas and objects under harsh environmental conditions, such as those found in industrial, chemical and petrochemical plants, on- and offshore oil and gas production plants, pipelines, refineries and loading ramps. High-pressure discharge lamps from 70 W to 600 W provide a high illuminance level.

PX 04 - multifunctional

The PX 04 light fitting enclosure is made of copper-free aluminium. The protective glass cover is made of scratchproof borosilicate glass; it protects the internal reflector against harmful environmental conditions.

Depending on the application, a wide beam or a narrow beam reflector can be chosen. All external screws are made of stainless steel. The easy-to-maintain electrical connection is made via a flanged-on Ex-e connection compartment. The ballast with thermal protection and a pulse ignitor with automatic shut off provides additional safety. The floodlight features an adjustable

mounting bracket that allows an optimum focussing of the light.

FLT 10 - for Arctic conditions

Specially designed for use in areas with extremely low temperatures, the FLT 10 was developed as a version of the tried and tested PX 04 floodlight. Thanks to its highly polished aluminium reflector, the FLT 10 has a high lighting efficiency of 62%. Depending on the application, a wide beam or a narrow beam reflector can be chosen. The housing design and connections are the same as those of the PX 04. As it has been certified for ambient temperatures from -55 °C up to

+55 °C, the FLT 10 is the ideal light source for use in extreme climates.



Features

- Floodlight for high-pressure discharge lamps
- Robust design for harsh environments
- High degree of protection IP 66
- With large Ex-e terminal compartment
- Depending on the version, large ambient temperature range from -55 °C up to +55 °C
- CU-Certificate for Eurasian Economic Community available
- Meets the highest corrosion protection and mechanical strength requirements

Ordering details



Type	Content	Lamp / Illuminant	Reflector	Rated luminous flux ¹⁾	Weight	Metal thread	Threaded plug	Order No.
PX								
PX 0405	-20 °C up to +55 °C IQT - 500 W		narrow beam	10000 lm	23 kg	2 x M25	1 x M25	NOR 000 115 170 209
PX 0405	-20 °C up to +55 °C IQT 500 W		wide beam	10000 lm	23 kg	2 x M25	1 x M25	NOR 000 115 170 309
PX 0407	-20 °C up to +55 °C HIT / HST 70 W		narrow beam	5100/6000 lm	23 kg	2 x M25	1 x M25	NOR 000 115 170 230
PX 0415	-20 °C up to +55 °C HIT / HST 150 W		narrow beam	11000/15000 lm	31 kg	2 x M25	1 x M25	NOR 000 115 170 233
PX 0415	-20 °C up to +55 °C HIT / HST 150 W		wide beam	14000/15000 lm	31 kg	2 x M25	1 x M25	NOR 000 115 170 333
PX 0425	-20 °C up to +55 °C HIT / HST 250 W		narrow beam	19000/28000 lm	31 kg	2 x M25	1 x M25	NOR 000 115 170 227
PX 0425	-20 °C up to +55 °C HIT / HST 250 W		wide beam	19000/28000 lm	31 kg	2 x M25	1 x M25	NOR 000 115 170 327
PX 0440H	-20 °C up to +55 °C HIT 400 W		narrow beam	33000 lm	31 kg	2 x M25	1 x M25	NOR 000 115 170 222
PX 0440H	-20 °C up to +55 °C HIT 400 W		wide beam	33000 lm	31 kg	2 x M25	1 x M25	NOR 000 115 170 322
PX 0440S	-20 °C up to +55 °C HST 400 W		narrow beam	48000 lm	31 kg	2 x M25	1 x M25	NOR 000 115 170 221
PX 0440S	-20 °C up to +55 °C HST 400 W		wide beam	48000 lm	31 kg	2 x M25	1 x M25	NOR 000 115 170 321
PX 0460	-20 °C up to +55 °C HST 600 W		narrow beam	90000 lm	31 kg	2 x M25	1 x M25	NOR 000 115 170 215
PX 0460	-20 °C up to +55 °C HST 600 W		wide beam	90000 lm	31 kg	2 x M25	1 x M25	NOR 000 115 170 315
FLT								
FLT 1007	-55°C up to +55 °C HIT / HST 70 W		wide beam	5100/6000 lm	41 kg	2 x M25	1 x M25	FLT10 0 07271 W002
FLT 1007	-55°C up to +55 °C HIT / HST 70 W		narrow beam	5100/6000 lm	41 kg	2 x M25	1 x M25	FLT10 0 07271 N002
FLT 1010	-55°C up to +55 °C HIT / HST 100 W		wide beam	10000/9000 lm	41 kg	2 x M25	1 x M25	FLT10 0 10401 W002
FLT 1010	-55°C up to +55 °C HIT / HST 100 W		narrow beam	10000/9000 lm	41 kg	2 x M25	1 x M25	FLT10 0 10401 N002
FLT 1015	-55°C up to +55 °C HIT / HST 150 W		wide beam	11000/15000 lm	41 kg	2 x M25	1 x M25	FLT10 0 15401 W002
FLT 1015	-55°C up to +55 °C HIT / HST 150 W		narrow beam	11000/15000 lm	41 kg	2 x M25	1 x M25	FLT10 0 15401 N002
FLT 1025	-55°C up to +55 °C HIT / HST 250 W		wide beam	19000/28000 lm	41 kg	2 x M25	1 x M25	FLT10 0 25401 W002
FLT 1025	-55°C up to +55 °C HIT / HST 250 W		narrow beam	19000/28000 lm	41 kg	2 x M25	1 x M25	FLT10 0 25401 N002
FLT 1040	-55°C up to +40 °C HIT 400 W		wide beam	33000 lm	41 kg	2 x M25	1 x M25	FLT10 I 40401 W002
FLT 1040	-55°C up to +40 °C HIT 400 W		narrow beam	33000 lm	41 kg	2 x M25	1 x M25	FLT10 I 40401 N002
FLT 1040	-55°C up to +40 °C HST 400 W		wide beam	48000 lm	41 kg	2 x M25	1 x M25	FLT10 S 40401 W002
FLT 1040	-55°C up to +40 °C HST 400 W		narrow beam	48000 lm	41 kg	2 x M25	1 x M25	FLT10 S 40401 N002

¹⁾ depends on used lamps

Scope of delivery without lamp and fixing accessories, if not stated otherwise.

Metal cable glands see catalogue part 2: 2.3.12 ff

Accessories



Type	Content	Application	OU	Order No.
SB	2 St pipe clamp Ø 48 mm up to Ø 64 mm incl. fixing screws	PX 04 / FLT 10	1	NOR 000 005 170 583
ATP	portable stand, painted steel	PX 04 / FLT 10 ..	1	NOR 000 005 170 715
PAH	horizontal steel shade, painted steel	PX 04 / FLT 10 ..	1	NOR 000 005 170 608
PAV	vertical steel shade, painted steel	PX 04 / FLT 10 ..	1	NOR 000 005 170 591
HIT 250 W	Metal halide lamp 250 W E40	PX 04 / FLT 10 ..	1	CGS 323 7990 P1007
HIT 400 W	Metal halide lamp 400 W E40	PX 04 / FLT 10 ..	1	CGS 323 7990 P1008
HST 250 W	High pressure sodium lamp 250 W E40	PX 04 / FLT 10 ..	1	3 2475 900 016
HST 400 W	High pressure sodium lamp 400 W E40	PX 04 / FLT 10 ..	1	3 2475 900 015
HST 70 W	High pressure sodium lamp 70 W E40	PX 04 / FLT 10		3 1750 301 070

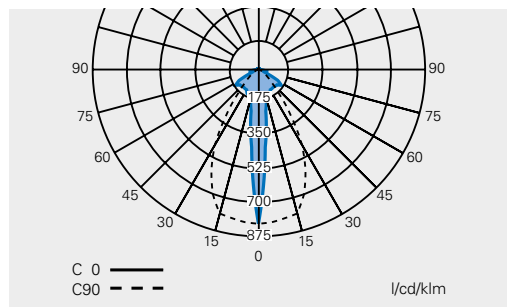
Other lamps on request

4.6

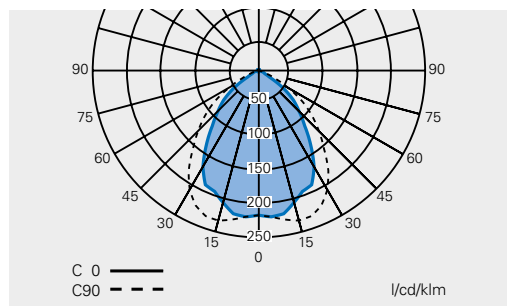
Dimension drawing / Polar curve

PX 04 / FLT 10

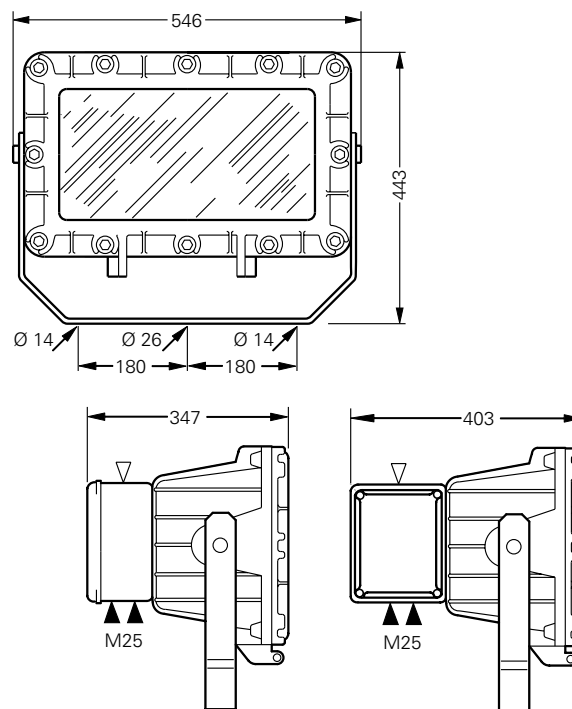
Polar curve with narrow beam reflector



Polar curve with wide beam reflector

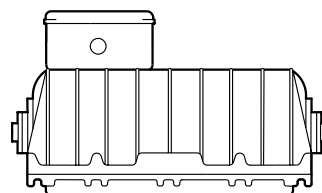


PX 04 and FLT 10

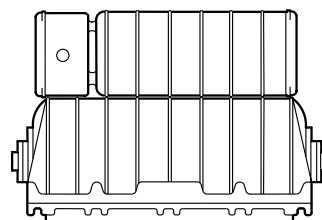


▷ optional entry, on request
▶ entry

without ballast for QT- and HME-SB-lamps



with ballast for all high pressure discharge lamps



Dimensions in mm



Technical data

4

	PX 04	FLT 10
EC-Type Examination Certificate	BVS 09 ATEX E 050 X	BVS 09 ATEX E 050 X
IECEX Certificate of Conformity	IECEX BVS-10.0009X	IECEX BVS-10.0009X
Marking accd. to 2014/34/EU	Ⓢ II 2G Ex d eb IIB T2-T4 ¹⁾ Gb Ⓢ II 2D Ex tb IIIC T85°C-T210°C ¹⁾ Db	Ⓢ II 2G Ex de IIB T3-T4 ¹⁾ Gb Ⓢ II 2D Ex tb IIIC T130°C-T190°C ¹⁾ Db
Marking accd. to IECEx	Ex de IIB T2-T4 Ex tD A21 IP66 T85°C - 210°C	Ex de IIB T3-T4 Ex tD A21 IP66 T130°C - 190°C
Permissible ambient temperature	-20 °C up to +55 °C	-55°C up to +55 °C
Rated voltage without control gear	≤ 250 V AC	--
Rated voltage with control gear	230 V AC	230 V AC
Frequency	50 Hz	50 Hz
Power factor cos φ	> 0.85	> 0.85
Circuit	compensated circuit	compensated circuit
Protection class	I	I
Lamp name	High pressure sodium lamp HST, Metal halide lamp HIT	High pressure sodium lamp HST, Metal halide lamp HIT
Rated luminous flux	²⁾	²⁾
Lamp cap	E40 accord. IEC 60238	E40 accord. IEC 60238
Light output ratio	62 %	60 %
Dimensions (L x W x H)	546 x 443 x 396 mm	546 x 443 x 403 mm
Connecting terminals (Ex-e)	L1, N: 2 x 4 mm ² ; PE: 2 x 6 mm ²	L1, N: 2 x 4 mm ² ; PE: 2 x 6 mm ²
Enclosure earth	2 x 6 mm ²	2 x 6 mm ²
Enclosure colour	grey	grey
Enclosure material	Light alloy	Light alloy
Weight	31 kg	41 kg
Cable glands / gland plates / enclosure drilling	Indirect entries (Ex-e): 2 x M25 x 1.5 thread 1 x plugged M25 screw plug	Indirect entries (Ex-e): 2 x M25 x 1.5 thread 1 x plugged M25 screw plug
Type of mounting	ceiling mounting	ceiling mounting
Degree of protection accd. to EN 60529	IP66	IP66
Protective cover / protective bowl	borosilicate glass	borosilicate glass
Reflector	polished aluminium reflector	polished aluminium reflector

¹⁾ see table page 1.4.36

²⁾ see table luminaire data S. 1.4.36

Additional luminaire data PX 04

Lamp	Power	Rated luminous flux ¹⁾	Temperature class II 2 G		max. surface temp. II 2 D	
			T _u ≤ 40 °C	T _u ≤ 55 °C	T _u ≤ 40 °C	T _u ≤ 55 °C
PX 0407	HS - 70 W	6000 lm	T4	T4	T85 °C	T100 °C
PX 0407	HI. - 70 W	5100 lm	T4	T4	T90 °C	T105 °C
PX 0415	HS. - 150 W	15000 lm	T4	T4	T115 °C	T130 °C
PX 0415	HI. - 150 W	11000 lm	T4	T4	T105 °C	T120 °C
PX 0425	HS. - 250 W	28000 lm	T4	T3	T130 °C	T145 °C
PX 0425	HI. - 250 W	19000 lm	T4	T3	T130 °C	T145 °C
PX 0440	HST - 400 W	48000 lm	T3	T3	T175 °C	T190 °C
PX 0440	HIT - 400 W	33000 lm	T3	T3	T170 °C	T185 °C
PX 0460	HST - 600 W	90000 lm	T3	T2	T195 °C	T210 °C
PX 0405	IQT - 500 W	10000 lm	T3	T2	T185 °C	T200 °C

¹⁾ depends on used lamps

Additional luminaire data FLT 10

Lamp	Power	rated luminous flux ¹⁾	Temperature class II 2 G		max. surface temp. II 2 D	
			T _u ≤ 40 °C	T _u ≤ 55 °C	T _u ≤ 40 °C	T _u ≤ 55 °C
FLT 1007	HS - 70 W	6000 lm	T4	T4	T115 °C	T130 °C
FLT 1007	HI. - 70 W	5100 lm	T4	T4	T115 °C	T130 °C
FLT 1015	HS. - 150 W	15000 lm	T4	T4	T115 °C	T130 °C
FLT 1015	HI. - 150 W	11000 lm	T4	T4	T115 °C	T130 °C
FLT 1025	HS. - 250 W	28000 lm	T4	T3	T145 °C	T160 °C
FLT 1025	HI. - 250 W	19000 lm	T4	T3	T145 °C	T160 °C
FLT 1040	HST - 400 W	48000 lm	T3	--	T190 °C	--
FLT 1040	HIT - 400 W	33000 lm	T3	--	T190 °C	--

¹⁾ depends on used lamps



Ex-Floodlights for high-pressure discharge lamps, series FZD 04

(Zone 1, 2, 21, 22)

4

The maintenance- and installation-friendly FZD 04 floodlights for harsh operating conditions

Due to the spatial separation of the lamp module, lamp base and ballast, this powerful and robust spotlight for high-pressure discharge lamps can be installed and maintained in an easy and quick way. The Ex-e ballast enclosure with the compensation capacitor can be mounted within arm's reach. Only the light Ex-e enclosure made of copper-free aluminium for the ignitor is mounted at the desired mounting height of the floodlight and the Ex-d lamp

module is simply plugged in and locked. This allows a one-man installation without a crane or other lifting tools.

Flexibility due to modular design

All the components of the modular Ex floodlight have been certified separately as components. The flameproof lamp module can be easily separated from the housing once the locking screw has been loosened. Two sealing systems in the degree of protection IP66 ensure permanently protected Ex-d contacts.



There is no need to switch off the mains voltage to separate the module from the luminaire.

This means that a simple lamp change and easy cleaning of the lamp modules is possible, even outside the hazardous area. Optionally, the module can be fitted with narrow-angle and wide-angle reflectors – these can even be fitted retrospectively and without any additional installation work.

For extreme environmental conditions

The FZD 04 floodlight series with its maintenance-friendly replaceable lamp module and its large operating/ambient temperature range from -45 °C up to +45 °C is the ideal solution for illuminating large areas and plants in challenging climates.

A special advantage

The simple and quick exchanging of the lamp module means that changing the lamp is not a problem, even under extreme weather or climate conditions (snow, ice, and particularly low ambient temperatures).

Features

- Easy lamp replacement due to the Ex-d lamp module
- Modular design of housing Ex-e/Ex-d
- High degree of protection IP 66
- Optional internal wide beam or narrow beam reflector
- Can be used in ambient temperatures as low as -45 °C
- CU-Certificate for Eurasian Economic Community available



Ordering details

Type	Version ²⁾	Lamp / Illuminant	Reflector	Rated luminous flux ¹⁾	Weight	Cable gland/ thread	Screw plug	Order No.
FZD 04 with cable gland								
FZD 04 250 W	GRP	HIT / HST 250 W	narrow beam	19000 / 28000 lm	23.9 kg	1 x M25 for Ø 8-17 mm	1 x M25	NOR 000 005 192 505
FZD 04 250 W	GRP	HIT / HST 250 W	wide beam	19000 / 28000 lm	23.9 kg	1 x M25 for Ø 8-17 mm	1 x M25	NOR 000 005 192 506
FZD 04 400 W	GRP	HIT 400 W	narrow beam	33000 lm	23.9 kg	1 x M25 for Ø 8-17 mm	1 x M25	NOR 000 005 194 105
FZD 04 400 W	GRP	HIT 400 W	wide beam	33000 lm	23.9 kg	1 x M25 for Ø 8-17 mm	1 x M25	NOR 000 005 194 106
FZD 04 400 W	GRP	HST 400 W	narrow beam	48000 lm	23.9 kg	1 x M25 for Ø 8-17 mm	1 x M25	NOR 000 005 194 005
FZD 04 400 W	GRP	HST 400 W	wide beam	48000 lm	23.9 kg	1 x M25 for Ø 8-17 mm	1 x M25	NOR 000 005 194 006
FZD 04 250 W	st. steel	HIT / HST 250 W	narrow beam	19000 / 28000 lm	24.9 kg	1 x M25 for Ø 8-17 mm	1 x M25	NOR 000 005 192 501
FZD 04 250 W	st. steel	HIT / HST 250 W	wide beam	19000 / 28000 lm	24.9 kg	1 x M25 for Ø 8-17 mm	1 x M25	NOR 000 005 192 502
FZD 04 400 W	st. steel	HIT 400 W	narrow beam	33000 lm	24.9 kg	1 x M25 for Ø 8-17 mm	1 x M25	NOR 000 005 194 101
FZD 04 400 W	st. steel	HIT 400 W	wide beam	33000 lm	24.9 kg	1 x M25 for Ø 8-17 mm	1 x M25	NOR 000 005 194 102
FZD 04 400 W	st. steel	HST 400 W	narrow beam	48000 lm	24.9 kg	1 x M25 for Ø 8-17 mm	1 x M25	NOR 000 005 194 001
FZD 04 400 W	st. steel	HST 400 W	wide beam	48000 lm	24.9 kg	1 x M25 for Ø 8-17 mm	1 x M25	NOR 000 005 194 002
FZD 04 without cable gland								
FZD 04 250 W	GRP	HIT / HST 250 W	narrow beam	19000 / 28000 lm	23.9 kg	2 x M25, metal thread	1 x M25	NOR 000 005 192 507
FZD 04 250 W	GRP	HIT / HST 250 W	wide beam	19000 / 28000 lm	23.9 kg	2 x M25, metal thread	1 x M25	NOR 000 005 192 508
FZD 04 400 W	GRP	HIT 400 W	narrow beam	33000 lm	23.9 kg	2 x M25, metal thread	1 x M25	NOR 000 005 194 107
FZD 04 400 W	GRP	HIT 400 W	wide beam	33000 lm	23.9 kg	2 x M25, metal thread	1 x M25	NOR 000 005 194 108
FZD 04 400 W	GRP	HST 400 W	narrow beam	48000 lm	23.9 kg	2 x M25, metal thread	1 x M25	NOR 000 005 194 007
FZD 04 400 W	GRP	HST 400 W	wide beam	48000 lm	23.9 kg	2 x M25, metal thread	1 x M25	NOR 000 005 194 008
FZD 04 250 W	st. steel	HIT / HST 250 W	narrow beam	19000 / 28000 lm	24.9 kg	2 x M25, metal thread	1 x M25	NOR 000 005 192 503
FZD 04 250 W	st. steel	HIT / HST 250 W	wide beam	19000 / 28000 lm	24.9 kg	2 x M25, metal thread	1 x M25	NOR 000 005 192 504
FZD 04 400 W	st. steel	HIT 400 W	narrow beam	33000 lm	24.9 kg	2 x M25, metal thread	1 x M25	NOR 000 005 194 103
FZD 04 400 W	st. steel	HIT 400 W	wide beam	33000 lm	24.9 kg	2 x M25, metal thread	1 x M25	NOR 000 005 194 104
FZD 04 400 W	st. steel	HST 400 W	narrow beam	48000 lm	24.9 kg	2 x M25, metal thread	1 x M25	NOR 000 005 194 003
FZD 04 400 W	st. steel	HST 400 W	wide beam	48000 lm	24.9 kg	2 x M25, metal thread	1 x M25	NOR 000 005 194 004

¹⁾ depends on used lamps

²⁾ GRP: ballast enclosure made from GRP-material / St.S: ballast enclosure made from stainless steel 316L

Scope of delivery without lamp and fixing accessories, if not stated otherwise.

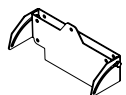
Metal cable glands see catalogue part 2: 2.3.12 ff

Accessories FZD 04

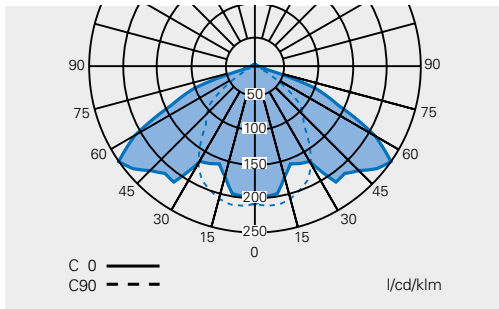
Type	Content	FZD 04 250 W	FZD 04 400 W	OU	Order No.
Lamp module	Lamp module 250 W/400 W complete with internal reflector				
	narrow beam	X	X	1	1 3041 000 011
	wide beam	X	X	1	1 3041 000 012
Slip fitter	Adapter for 1 1/4" pole mounting (Innen-Ø = 47.5 mm) compl. with fixing screws	X	X	1	NOR 000 005 190 021
Slip fitter	Adapter for 2" pole mounting (Innen-Ø = 66 mm) compl. with fixing screws	X	X	1	NOR 000 005 190 022
Swivel bracket	Adjustable hinge for wall-/pole mounting	X	X	1	NOR 000 005 190 023
Mounting plate	Stainless steel for wall-/pole mounting (pipe clamps not included)	X	X	1	NOR 000 005 190 026
Pipe clamp	1 1/4" pipe clamp (1 pcs.) galvanized Ø 38 - 42 mm ²	X	X	1	2 2480 462 000
Pipe clamp	1 1/4" pipe clamp (1 pcs.) Stainless steel Ø 38 - 42 mm ²	X	X	1	2 2480 464 000
Pipe clamp	1 1/2" pipe clamp (1 pcs.) galvanized Ø 47 - 51 mm ²	X	X	1	2 2480 472 000
Pipe clamp	2" pipe clamp (1 pcs.) galvanized Ø 56 - 60 mm ²	X	X	1	2 2480 482 000
HIT 250 W	Metal halide lamp 250 W E40	X	—	1	CGS 323 7990 P1007
HIT 400 W	Metal halide lamp 400 W E40	—	X	1	CGS 323 7990 P1008
HST 250 W	High pressure sodium lamp 250 W E40	X	—	1	3 2475 900 016
HST 400 W	High pressure sodium lamp 400 W E40	—	X	1	3 2475 900 015

Scope of delivery without lamp and fixing accessories, if not stated otherwise.
Metal cable glands see catalogue part 2: 2.3.12 ff

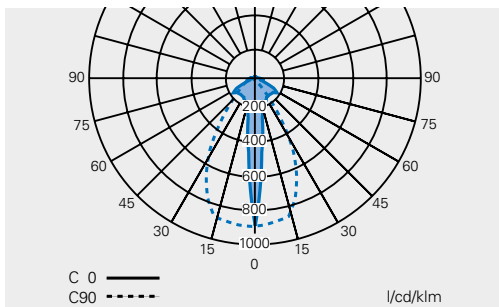
Other lamps on request



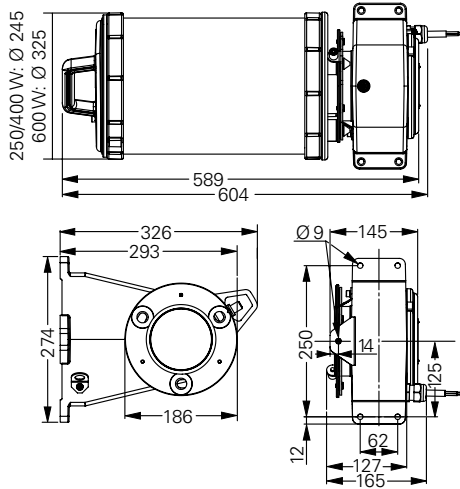
FZD ... with reflector wide beam



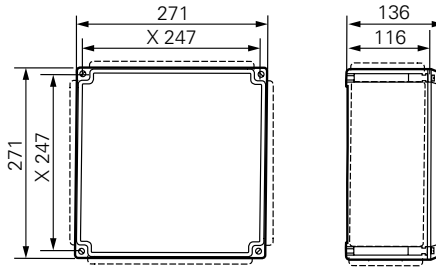
FZD ... with reflector narrow beam



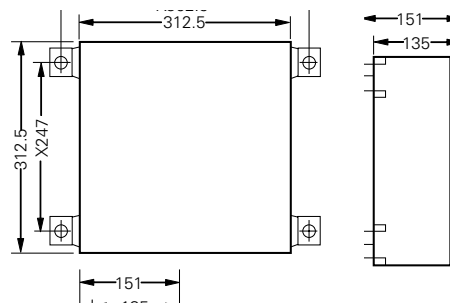
FZD 04 250/400 W



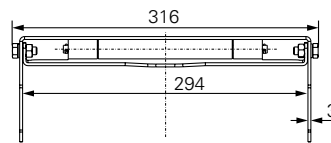
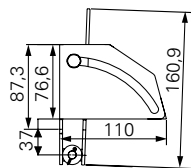
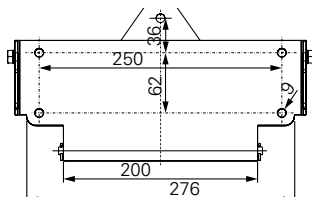
Ballast enclosure: plastic version



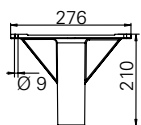
Ballast enclosure: stainless steel version



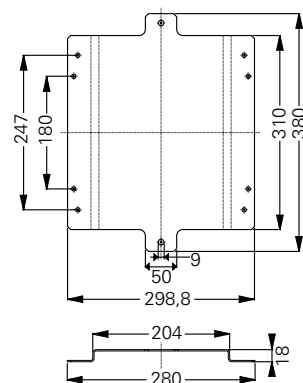
Swivel bracket



Slip fitter



Mounting plate





Technical data

4

FZD 04	
EC-Type Examination Certificate	BVS 10 ATEX E 139 X
IECEx Certificate of Conformity	IECEx BKI 07.0002
Marking accd. to 2014/34/EU	Ⓢ II 2 G Ex de mb q IIC T3/T4 ¹⁾ Gb Ⓢ II 2 D Ex tb IIIC T ¹⁾ Db IP66
Permissible ambient temperature	-45 °C up to +45 °C
Rated voltage	230 V AC ²⁾
Rated current	150 W: 0.8 A / 250 W: 1.3 A / 400 W: 2.10 A
Frequency	50 Hz ²⁾
Power factor cos φ	> 0.9
Circuit	Compensated circuit
Protection class	I
Lamp / Illuminant	HST / HIT
Lamp name	High pressure sodium lamp / metal halide lamp
Rated luminous flux	³⁾
Lamp cap	E40 accord. IEC 60238
Light output ratio	66 %
Dimensions (L x W x H)	See dimension drawing
Connecting terminals	L, N, PE: 2 x 4 mm ² + 4 mm ² PE (Ballast enclosure), L, N, PE: 2 x 2.5 mm ² + 2.5 mm ² PE (lamp module)
Enclosure colour	Grey
Enclosure material	Ballast enclosure: glass-fibre reinforced polyester or stainless steel, floodlight enclosure: light alloy
Weight	Lamp module: approx. 10.6 kg Floodlight enclosure: approx. 4.3 kg Ballast enclosure: 9 kg (glass-fibre reinforced polyester) Ballast enclosure: 10 kg (stainless steel)
Cable glands / gland plates / enclosure drilling	1 x M25 x 1.5 with plastic-cable glands Ex-e M25 for non-armoured cable Ø 8 - 17 mm (floodlight enclosure) ⁴⁾ 3 x M25 x 1.5, 2 x M25 plastic cable gland Ex-e for cable Ø 8 - 17 mm 1 x M25 plugged (ballast enclosure) ⁵⁾
Type of mounting	Ceiling-/wall mounting
Degree of protection accd. to EN 60529	IP66
Protective cover / protective bowl	Borosilicate glass
Reflector	Polished aluminium reflector

¹⁾ see table

²⁾ other voltages and frequencies on request

³⁾ see table luminaire data

⁴⁾ Connection for ballast

⁵⁾ one for connection of the floodlight enclosure, two for line supply

Additional luminaire data FZD 04

Lamp	Luminous flux ¹⁾	Temperature class II 2 G		max. surface temp. II 2 D	
		T ₀ ≤ 40 °C	T ₀ ≤ 45 °C	T ₀ ≤ 40 °C	T ₀ ≤ 45 °C
HST / HIT 150 W	15000 lm	T4	T4	T 125 °C	T 130 °C
HST / HIT 250 W	28000 lm	T3	T3	T 145 °C	T 150 °C
HST / HIT 400 W	48000 lm	T3	—	T 190 °C	—

¹⁾ depends on used lamps

Ex-Floodlight for high-pressure discharge lamps dTLS 85

4 (Zone 1, 2)

Ex-floodlight for high-pressure discharge lamps

The robust dTLS 85 floodlight and the GHG 664 emergency pack for use in hazardous areas in Zones 1 and 2 are suitable for illuminating large areas and objects. Due to the high degree of protection IP66, they are best suited for harsh environments, such as offshore oil and gas production plants or industrial, chemical and petrochemical plants, oil and gas production plants, pipelines, refineries and loading ramps. High-pressure discharge lamps from 70 W to 250 W provide a high illuminance level.

dTLS 85 - versatile

The dTLS 85 floodlight has a robust Ex-d enclosure made of powder copper-free aluminium with a powder-coating. The pressed-in, threaded ring for the flameproof joints made of brass. This facilitates the replacement of lamps, even after a longer operating period. The protective glass is made of scratchproof borosilicate glass; it protects the lighting technology against harmful environmental influences. The floodlight has been designed for outdoor use. The vaporized reflectors are designed for various angles of light diffusion.



The easy-to-maintain electrical connection is made via an Ex-e terminal compartment. The floodlight features an adjustable mounting bracket that allows an optimum focussing of the light.

the powerful explosion-protected dTLS 85070 P floodlight, escape routes and evacuation equipment (life boats, life rafts, abseiling equipment or rescue cushions, etc.) can be safely illuminated, even from larger distances. The GHG 664 emergency pack has a flameproof enclosure for electronics components and a flanged-on, increased safety enclosure for the battery and the terminals. The dTLS 85070 floodlight, which is to be mounted separately, features a powerful lighting technology, with which, for example, at a mounting height of 9 m, an area of 15 x 15 m can be illuminated with 1 lux.

GHG 664 emergency pack

This robust and extremely reliable emergency supply unit was developed specifically for use on offshore installations and ships. In the event of a power failure, the GHG 664 emergency pack allows the battery-back-up operation of the dTLS 85070 P floodlight with a 70 W high pressure sodium lamp for a period of 1.5 hours. When used in combination with

Features

- For the efficient illumination of large objects
- Robust housing made of light alloy with powder coating
- Easy lamp replacement, even after a long period of use
- High-gloss reflectors for different diffusion angles
- Large Ex-e connection box for easy installation
- CU-Certificate for Eurasian Economic Community available
- GHG664 emergency pack: safe light for evacuation equipment in hazardous areas with an emergency light duration of 1.5 hrs during power failure; maintained and non-maintained with switch-off device (only 220- 240 V)
- Suitable for use on offshore platforms and ships



Ordering details

Type	Content	Lamp / illuminant	Reflector	Rated luminous flux ¹⁾	Weight	Cable gland/ thread	Screw plug	Order No.
dTLS 85								
dTLS 85250 S	with diffuser lens, inductive	HIT-DE / HST-DE 250 W	wide beam reflector	20000 lm /28000 lm	25 kg	1 x M25 for Ø 8-17 mm, plastic	1 x M25	CGS 123 8588 P0001
dTLS 85250 S -40 °C up to +40 °C	with diffuser lens, inductive	HIT-DE / HST-DE 250 W	wide beam reflector	20000 lm /28000 lm	25 kg	1 x M25 for Ø 8-17 mm, plastic	1 x M25	CGS 123 8588 P0004
dTLS 85250 S	with diffuser lens, compensated circuit	HIT-DE / HST-DE 250 W	wide beam reflector	20000 lm /28000 lm	32 kg	1 x M25 for Ø 8-17 mm, plastic	1 x M25	CGS 123 8588 P1001
dTLS 85250 P	with parabolic reflector, inductive	HIT-DE / HST-DE 250 W	narrow beam	20000 lm /28000 lm	25 kg	1 x M25 for Ø 8-17 mm, plastic	1 x M25	CGS 123 8588 P0002
dTLS 85250 P	with parabolic reflector, comp.	HIT-DE / HST-DE 250 W	narrow beam	20000 lm /28000 lm	32 kg	1 x M25 for Ø 8-17 mm, plastic	1 x M25	CGS 123 8588 P1002
dTLS 85070 P	with parabolic reflector, comp.	HST-DE 70 W	narrow beam	6800 lm	22 kg	1 x M25 for Ø 8-17 mm, plastic	1 x M25	CGS 123 8588 P0003

Emergency power supply unit GHG 664

Power supply unit 230 - 240 V AC	incl. battery with dTLS 85070 P	HST-DE 70 W	narrow beam	6800 lm	48 kg	2 x M20, metal	1 x M20 screw plug (metal)	GHG 660 1915 R0001
Power supply unit 120 V AC	incl. battery with dTLS 85070 P	HST-DE 70 W	narrow beam	6800 lm	48 kg	2 x M20, metal	1 x M20 screw plug (metal)	GHG 660 1915 R0002
Power supply unit 230 -240 V AC	incl. battery, without light fitting				48 kg	2 x M20, metal	1 x M20 screw plug (metal)	GHG 664 5001 R0001

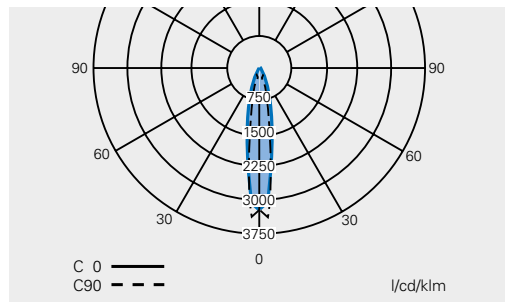
Accessories dTLS 85250 and dTLS 85070

Type	Content	dTLS 85250	dTLS 85070	OU	Order No.
RS	Eye bolt M10 (10 pcs.) galvanised	x	x	1	GHG 690 1921 R0003
L 218	Mounting bracket for inductive version	x	x	1	GHG 690 1913 R0001
L 430	Mounting bracket for compensated version	x		1	GHG 690 1913 R0002
HST-DE 250 W	High pressure sodium lamp 250 W-DE Fc2	x		1	CGS 323 8500 P1009
HIT-DE 250 W	Metal halide lamp 250 W-DE Fc2	x		1	CGS 323 7990 P1009
HST-DE 70 W	High pressure sodium lamp 70 W-DE Rx 7s		x	1	GHG 690 9216 P0001

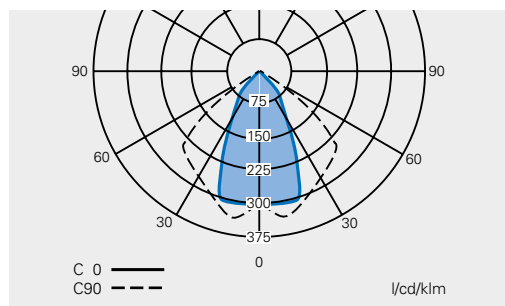
Scope of delivery without lamp and fixing accessories, if not stated otherwise.
Metal cable glands see catalogue part 2: 2.3.12 ff



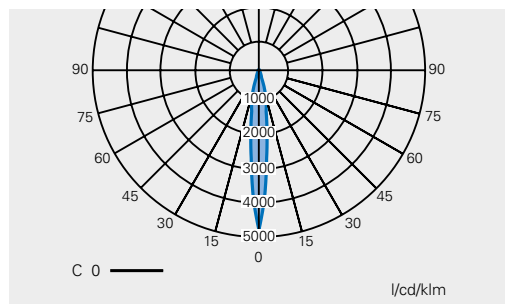
**Polar curve
with reflector narrow beam dTLS 85250**



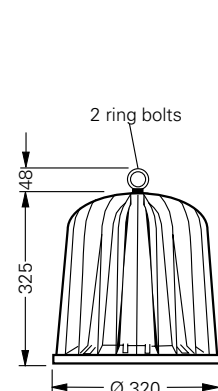
**Polar curve
with reflector wide beam reflector dTLS 85250**



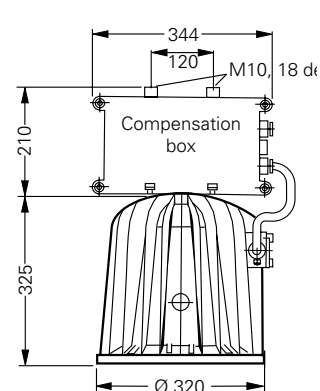
**Polar curve
with reflector dTLS 85070**



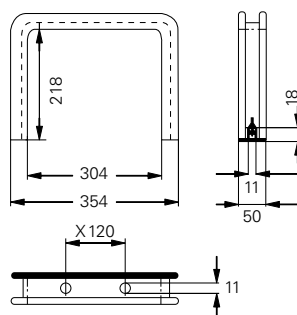
**dTLS 85250 ind.
dTLS 85070 comp.**



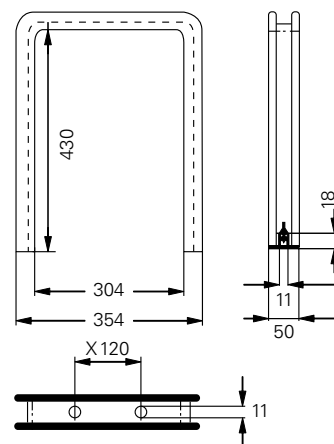
dTLS 85250 comp.



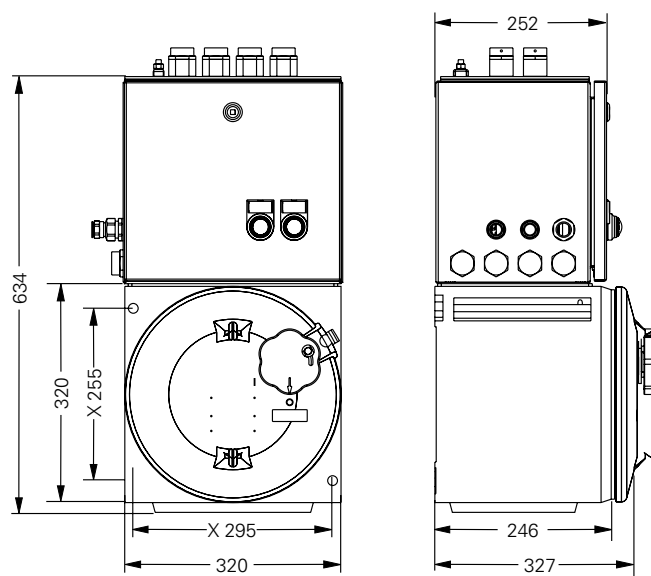
L 218



L 430



GHG 664





Technical data

4

	dTLS 85 250 / dTLS 85070	Emergency power supply unit GHG 664
EC-Type Examination Certificate	DMT 03 ATEX E 039	PTB 07 ATEX 2002 X
IECEx Certificate of Conformity	IECEx BVS 11.0066	
Marking accd. to 2014/34/EU	II 2 G Ex de IIC T3 Gb (dTLS 85250) II 2 G Ex de IIC T4 Gb (dTLS 85070)	II 2 G Ex de IIC T6
Marking accd. to IECEx	Ex de IIC T3 Gb / ---	
Permissible ambient temperature	-50 °C up to +55 °C dTLS 85250 ind. -20 °C up to +55 °C dTLS 85250 comp. -20 °C up to +55 °C dTLS 85070	-20 °C up to +40 °C -5 °C up to +40 °C (specified data)
Output voltage		230 -240 V AC/ 120 V AC
Battery		2 x 12 V, 12 Ah Pb (sealed lead acid accumulator)
Rated voltage	230 V AC	230 V / 120 V
Rated current	3 A (ind.), 1.5 A (comp.) dTLS 85250 0.38 A (comp.) dTLS 85070	max. 0.6 A (charging + floodlight)
Power factor cos φ	0.4 (ind.), ≥ 0.9 (comp.) / ≥ 0.9 (dTLS 85070)	≥ 0.9
Frequency	50 Hz	50 - 60 Hz
Charging duration		≤ 24 h
Power consumption		≤ 50 VA (charging)
Max. output power		80 VA
Circuit	Inductive circuit, compensated circuit (..250)/ electronic driver (..070)	Electronic driver
Protection class	I	I
Lamp / Illuminant	HIT-DE 250 W/HST-DE 250 W (dTLS 85250) HST-DE 70 W (dTLS 85070)	
Rated luminous flux ¹⁾	HIT-DE 250 W: 19000 lm / HST-DE 250 W: 25000 lm HST-DE 70 W: 6800 lm	¹⁾
Lamp cap	Fc2 / RX7s accord. IEC 60061	
Light output ratio	72 % 46 % with diffuser lens	
Rated emergency lighting duration		1.5 h
Dimensions (L x W x H)	Ø 320 x 325 mm	320 x 327 x 634 mm
Connecting terminals	L, N, PE max. 2 x 2.5 mm ²	L, L1, N, PE max. 2 x 6 mm ² mains supply 3 x 2.5 mm ² connection to light fitting
Enclosure colour	grey	grey
Enclosure material	light alloy with powder coating,	light alloy with sea water resistant powder coating
Weight	25 kg / 32 kg (with compensation box)	48 kg
Cable glands / gland plates / enclosure drilling	1 x M25 x 1.5 for cables from Ø 8 - 17 mm 1 x M25 x 1.5 with blanking plug	2 x M20 x 1.5 for cables from Ø 7 - 12 mm (mains supply) 1 x M25 x 1.5 for cables from Ø 11.5- 18 mm (connection to light fitting)
Type of mounting	Ceiling-/wall mounting	Floor/wall monting
Degree of protection accd. to EN 60529	IP66	IP66
Protective cover / protective bowl	Borosilicate glass	
Reflector	Polished aluminium reflector	

¹⁾ depends on used lamps

Ex-LED-Floodlight LPL LED

(Zone 1, 2, 21, 22)

4

The powerful LED floodlight for harsh operating conditions

Due to the particularly robust and solid design of the enclosure in combination with the vibration resistance of the LED module, the LPL LED floodlight is insensitive to impact, shocks, and vibrations. As a result, the LPL LED represents the ideal lighting concept for use in areas with difficult environmental conditions. Thanks to the LED technology, extreme temperatures from -36 °C up to +55 °C are not a problem. The rugged, flameproof light metal enclosure in the degree of protection IP 66 and the impact-resistant light output meets the highest corrosion protection and mechanical resistance requirements.

An efficient lighting technology

The LPL LED lighting series offers the latest lighting technology with a high luminous flux and, at the same time, an extremely low energy requirement. The LED modules provide a long service life combined with a high level of efficiency. With a power consumption of 53 W to 105 W, the LPL LED lighting series is ideal for replacing 70 W to 250 W light fittings with high pressure discharge lamps, whereby, the low energy consumption and the long service life (> 50,000 h) of the LED module keep operating costs pleasantly low.



Multiple applications

The LPL LED lighting series is suitable for medium and high suspension heights. It is the ideal solution for the illumination of open spaces, indoor areas and roads in industrial installations. Further applications include on- and offshore plants in the oil and gas industry, chemical plants, waste disposal

facilities, shipyards, power stations and mills where extreme amounts of dirt and moisture and increased mechanical hazard are to be expected. A U-shaped mounting bracket for wall and ceiling installation of the LPL LED is included.



Features

- High-power LED modules with up to 63% energy saving
- Flameproof enclosure for Zones 1, 2, 21 and 22 and temperature class T6
- Wide temperature range from -36 °C to +55 °C
- CU-Certificate for Eurasian Economic Community available
- High degree of protection IP 66 for harsh environments
- Large Ex-e terminal compartment for ease of installation

Ordering details

Type	Content	Lamp / illuminant	rated luminous flux of the luminaire ¹⁾	Weight	Metal thread	Screw plug	Order No.
LPL LED							
LPL06-C57-5L	with mounting bracket	High power LED-module 53 W (scope of delivery)	5127 lm	17 kg	2 x M25	2 x M25	CCL 121 4001 AE
LPL06-C57-7L	with mounting bracket	High power LED-module 70 W (scope of delivery)	6998 lm	17 kg	2 x M25	2 x M25	CCL 121 4003 AE
LPL06-C57-9L	with mounting bracket	High power LED-module 87 W (scope of delivery)	8645 lm	17 kg	2 x M25	2 x M25	CCL 121 4004 AE
LPL06-C57-10L	with mounting bracket	High power LED-module 105 W (scope of delivery)	10272 lm	17 kg	2 x M25	2 x M25	CCL 121 4005 AE

4

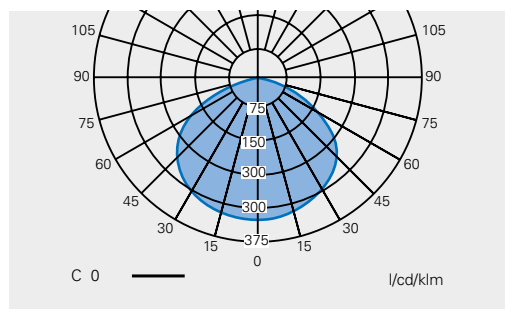
Accessories

Type	Content	OU	Order No.
PMB	Pole mounting bracket with fixing screws for use with mounting bracket	1	NOR 000 005 110 836

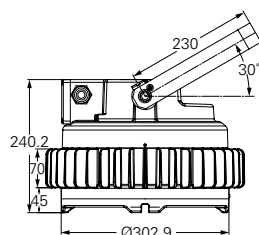
Scope of delivery without fixing accessories, if not stated otherwise.
Metal cable glands see catalogue part 2: 2.3.12 f



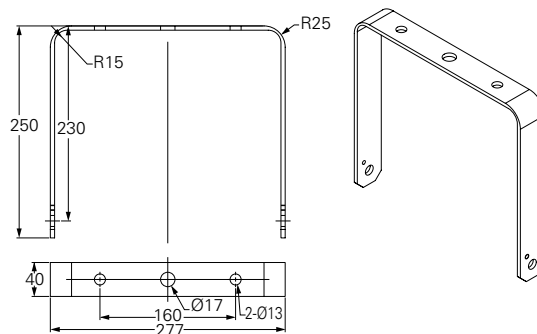
Polar curve LPL06 LED



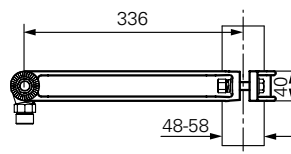
LPL 06 LED



Mounting bracket



Pole mounting bracket





Technical data

4

LPL06 LED	
EC-Type Examination Certificate	ITS 14 ATEX 18105X
IECEX Certificate of Conformity	IECEX UL 15.0077X
Marking accd. to 2014/34/EU	II 2 G Ex d e IIC T5/T6 Gb II 2 D Ex tb IIIC T80°C/T95 °C Db IP66
Marking accd. IECEX	Ex d e IIC T5/T6 Gb Ex tb IIIC T80°C/T95 °C Db IP66
Permissible ambient temperature	-36 °C up to +55 °C / -36 °C up to +50 °C (LPL06-C57-10L)
Rated voltage	100 V - 277 V AC
Frequency	50 - 60 Hz
Fixture lifetime	50.000 h at $t_a = + 55\text{ °C}$ / 120.000 h at +25 °C
Power consumption	max. 105 W (see table luminaire data)
Power factor cos ϕ	≥ 0.9
Circuit	Electronic driver
Protection class	I
Lamp name	High power LED-module ¹⁾
Light colour	5700 K cool white (CRI 70) / 3000 K (CRI 80) on request
Dimensions (L x W x H)	Ø 350 x 240 mm
Connecting terminals	3 x 0.5 mm ² up to 4.0 mm ² , max 6.0 mm ² single wire
Enclosure colour	Grey
Enclosure material	Copper free aluminium
Weight	17 kg
Cable glands / gland plates / enclosure drilling	2 x M25 x 1.5 thread, 1 x with Ex-e screw plug ²⁾
Type of mounting	Ceiling-/wall mounting
Degree of protection accd. to EN 60529	IP66
Protective cover / protective bowl	Toughened glass

¹⁾ Scope of delivery

²⁾ M20 on request

Additional luminaire data

Type	Rated luminous flux of the luminaire ($\pm 10\%$)	Rated power	Permissible ambient temperature	Temperature Class T _a Gas	Temperature Class T °C Dust
LPL06 LED					
LPL06-C57-5L	5127 lm	53 W	-36 °C up to + 55 °C	T6	T 80 °C
LPL06-C57-7L	6998 lm	70 W	-36 °C up to + 55 °C	T6	T 80 °C
LPL06-C57-9L	8645 lm	87 W	-36 °C up to + 55 °C	T6	T 80 °C
LPL06-C57-10L	10272 lm	105 W	-36 °C up to + 50 °C	T5	T 95 °C

Ex-Tank inspection luminaire KFL

(Zone 1, 2, 21, 22)

4

The compact luminaire for the process industry

The robust and compact explosion-protected KFL tank inspection light fitting is used in all sectors of the process industry for the illumination of boiler interiors, tanks and agitators. The light features special mounting stands which can be attached to different inspection windows of sizes DN 40 to DN 200 in accordance with DIN 28120. As an option, the KFL can be easily carried and stably placed by a carry handle for temporary illumination. The housing is made of copper-free aluminium and has a lens made of impact-resistant borosilicate glass. The aluminium collar has a PTFE coating (Teflon) and is sealed with a Viton seal.

Multifunctional use

In addition to the use for illuminating boilers, this tank inspection light fitting can be used in combination with a carry handle as a maintenance and repair light. High-voltage halogen reflector lamps as well as high-power LED lamps can be used. In addition to that, versions are also available in low voltage applications for halogen reflector as well as for LED lamps.

The extremely robust design of this fitting, the resistance to chemicals and UV and the high degree of protection IP 66 allow the use of this light fitting even under extremely harsh conditions.



Features

- Compact design
- Portable version with carry handle available
- Ready to connect for 230 V AC and low voltage 12/24 V AC/DC
- With 50 W halogen reflector lamp or high-power LED lamp up to 10 W
- High luminous efficacy
- Generously dimensioned terminal compartment
- Mounting onto inspection windows according to DIN 28120
- High degree of protection IP66

Ordering details

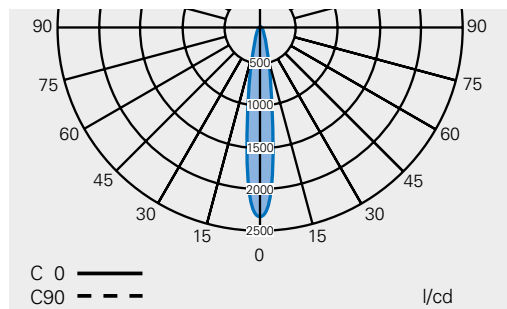
Type	Content	Lamp / Illuminant	Weight	Cable gland/ thread	Threaded plug	Order No.
KFL						
KFL 7 LED	incl. lamp	GU10 lamp socket 5.5 W 230 V LED (incl.)	3 kg	2 x M25, metal thread	1 x M25	NOR 000 005 140 906
KFL 7 LED	without lamp	GU5.3 lamp socket (without lamp) for LED lamps up to 10 W 12/24 V	3 kg	2 x M25, metal thread	1 x M25	NOR 000 005 140 031
KFL 50 IM	incl. lamp	GU10 lamp socket 50 W 230 V Halogen (incl.)	3 kg	2 x M25, metal thread	1 x M25	NOR 000 005 140 900
KFL 50 IM	incl. lamp	GU5.3 lamp socket 50 W 24 V Halogen (incl.)	3 kg	2 x M25, metal thread	1 x M25	NOR 000 005 140 030
KFL 50 IM	incl. lamp	BA15 D lamp socket 50 W 12 V Halogen (incl.)	3 kg	2 x M25, metal thread	1 x M25	NOR 000 005 140 920
Portable KFL 7 LED	incl. lamp, carry handle	GU10 lamp socket 5.5 W 230 V LED (incl.)	6 kg	2 x M25, metal thread	1 x M25	NOR 000 005 140 907
Portable KFL 7 LED	without lamp incl. carry handle	GU5.3 lamp socket (without lamp) for LED lamps up to 10 W 12/24 V	6 kg	2 x M25, metal thread	1 x M25	NOR 000 005 140 032

Accessories

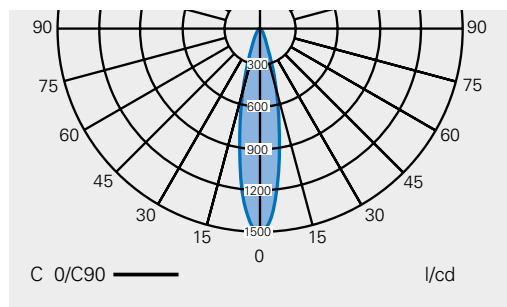
Type	Content	Application	Order unit	Order No.
LED lamp	LED lamp 5.5 W Socket GU 10	KFL 7 LED	1	NOR 000 000 514 531
Lamp	Halogen reflector lamp 230 V/50 W, socket GU 10	KFL 50 IM	1	NOR 000 000 514 529
Lamp	Halogen reflector lamp 24 V/50 W, 38° socket GU 5.3	KFL 50 IM	1	NOR 000 000 514 524
Lamp	Halogen reflector lamp 12 V/50 W, 8° socket BA 15D	KFL 50 IM	1	NOR 000 000 514 687
AT	Carry handle	KFL..	1	NOR 000 005 140 809
PAD	Antiglare shield	KFL..	1	NOR 000 005 140 700
PI	Mounting stands bended	KFL..	1	NOR 000 005 140 776

Scope of delivery without lamp, if not stated otherwise.
Metal cable glands see catalogue part 2: 2.3.12 ff

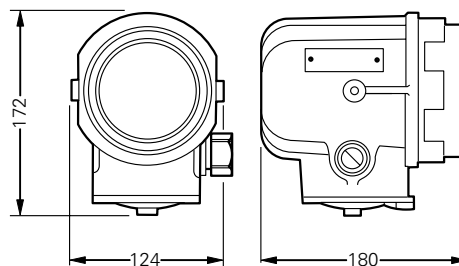
Polar curve KFL 50 IM



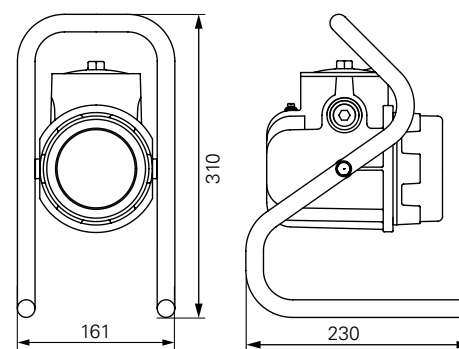
Polar curve KFL 50 IM / 7 LED



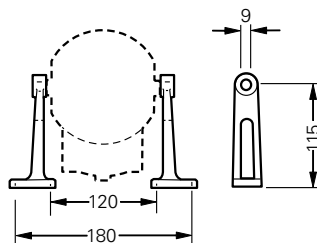
KFL 50 IM / 7 LED



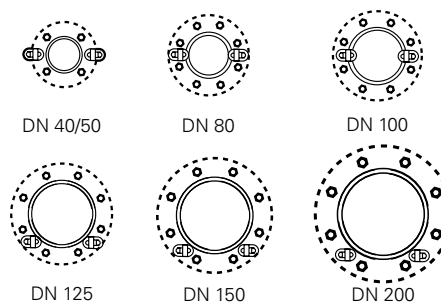
Portable KFL 7 LED



Light fixing facility PI



Allowed tank windows, nominal width





Technical data

4

	KFL 50 / KFL 50 IM	KFL 7 LED / KFL 7 LED low voltage / Portable KFL 7 LED
EC-Type Examination Certificate	LOM 02 ATEX 2035	LOM 02 ATEX 2035
IECEX Certificate of Conformity	IECEX BKI 07.0009	
Marking accd. to 2014/34/EU	⚡ II 2 G Ex d e IIC T3...T4 Gb ⚡ II 2 D Ex tb IIIC T105 °C...T140 °C	⚡ II 2 G Ex d e IIC 6 Gb ⚡ II 2 D Ex tb IIIC T85 °C
Marking accd. to IECEx	Ex de IIC T3 Ex tD A21 IP67 T140 °C	
Permissible ambient temperature	-50 °C up to +55 °C	-50 °C up to +55 °C
Rated voltage	230 V AC / 12/24 V AC/DC	100 - 240 V AC / 12/24 V DC
Frequency	0 / 50 - 60 Hz	0 / 50 - 60 Hz
Protection class	I	I
Lamp name	50 W high voltage type Sylvania, others on request ¹⁾	5.5 W / up to 10 W LED GU 10, ¹⁾
Lamp cap	GU10 / GU5.3 / BA5 D accord. IEC 60061 ¹⁾	GU10 / GU5.3 accord IEC 60061 ¹⁾
Rated luminous flux of the luminaire (typical, ± 10 %)	depends on lamp	depends on lamp
Dimensions (L x W x H)	180 x 124 x 172 mm	180 x 124 x 172 mm
Dimensions carry handle (portable)	230 x 158 x 310 mm	230 x 158 x 310 mm
Connecting terminals	2 x 2.5 mm ² , PE internal and external 6.0 mm ²	2 x 2.5 mm ² , PE internal and external 6.0 mm ²
Enclosure colour	Grey	Grey
Enclosure material	Light alloy with powder coating	Light alloy with powder coating
Weight	3 kg	3 kg / 6 kg (Portable KFL 7 LED)
Cable glands / gland plates / enclosure drilling	1 x M25 x 1.5 thread, 1 x M25 Ex-e screw plug	1 x M25 x 1.5 thread, 1 x M25 Ex-e screw plug
Degree of protection accd. to EN 60529	IP66	IP66
Protective cover / protective bowl	Toughened glass	Toughened glass

¹⁾ Scope of delivery

Ex-Pendant light fittings and floodlights of the series VMV LED

4 (Zone 2, 21, 22)

The powerful floodlight with LED technology VMV LED

The energy-saving VMV pendant light fittings and floodlights with LED technology are ideal for all general lighting applications in hazardous areas in Zone 2 and hazardous dust areas in Zones 21 and 22. With the integrated high-power LED technology, these lights can be used to replace comparable conventional light sources with an equivalent capacity of up to 1000 W.

LED technology for heavy-duty use

Due to the particularly solid construction of the housing and the vibration resistance of the LED module, the VMV floodlight is resistant to impact, shock and vibration. As a result, it represents the ideal lighting concept for use in areas with difficult environmental conditions. Thanks to the non-sensitive LED technology, even extreme temperatures from -40 °C up to +65 °C are not a problem. The robust, powder-coated light metal housing in the degree of protection

IP66 and the impact-resistant lens meet the highest corrosion protection and mechanical resistance requirements. The advantages of the integrated, advanced LED technology with a high luminous flux and, at the same time, an extremely low energy consumption are a long service life and a high level of efficiency. With a power consumption of 29 W to 232 W, it is ideal for replacing 70 W to 1000 W light fittings with high pressure lamps.

The best lighting technology for every application

The VMV LED pendant light fittings and floodlights series are available with 3 different custom optics:



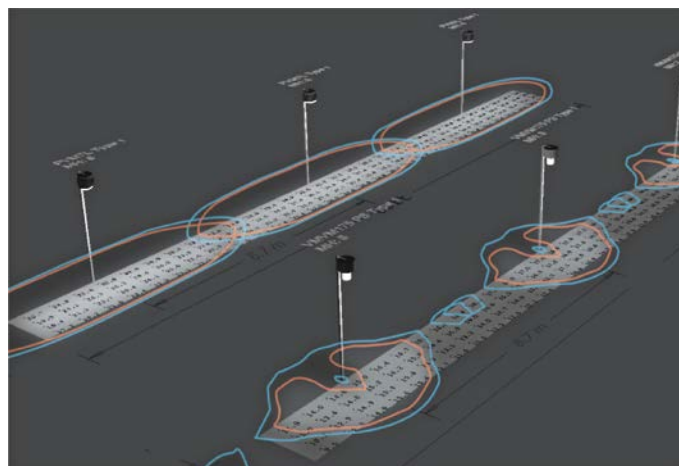
Type V has a symmetric light distribution and is optimised for general area illumination.



Type III has an asymmetrical light distribution and is, therefore, suitable for near-edge mounting (wall mounting) for surface illumination.



Type I has a narrow light distribution and is ideal for lighting roads and pathways.



Champ VMV with Type I optics (left row) compared to conventional fixtures (on the right)

Features

- High power LED modules
- Multiple drivers
- High efficient heat sink design for optimised thermal management
- Wide temperature range from -40 °C up to +65 °C (depends on type)
- High degree of protection IP66 for harsh environments
- Dimmable by control input 0-10 V

Ordering details

Type	Lamp / Illuminant	Rated luminous flux of the luminaire (± 10 %)	Weight	Cable gland/ thread	Threaded plugs	Enclosure type	Order No.
VMV LED lamp module with LEDs (without top mounting module, please order separately)							
VMV LED 3L	29 W Typ V	3515 lm	8.1 kg	–	–	1	1 2364 745
VMV LED 5L	43 W Typ V	5335 lm	8.1 kg	–	–	1	1 2364 746
VMV LED 7L	62 W Typ V	7195 lm	8.1 kg	–	–	1	1 2365 201
VMV LED 9L	85 W Typ V	9226 lm	8.1 kg	–	–	1	1 2365 202
VMV LED 11L	113 W Typ V	11440 lm	8.1 kg	–	–	1	1 2396 576
VMV LED 13L	130 W Type V	13266 lm	16.3 kg	–	–	2	1 2442 415
VMV LED 17L	168 W Type V	18793 lm	16.3 kg	–	–	2	1 2442 952
VMV LED 21L	196 W Type V	22110 lm	20.0 kg	–	–	3	1 2442 986
VMV LED 25L	232 W Type V	26531 lm	20.0 kg	–	–	3	1 2443 020
VMV LED 3L	29 W Typ I	3360 lm	8.1 kg	–	–	1	1 2374 698
VMV LED 5L	43 W Typ I	5045 lm	8.1 kg	–	–	1	1 2375 046
VMV LED 7L	62 W Typ I	6803 lm	8.1 kg	–	–	1	1 2375 106
VMV LED 9L	85 W Typ I	8823 lm	8.1 kg	–	–	1	1 2375 186
VMV LED 11L	113 W Typ I	10730 lm	8.1 kg	–	–	1	1 2401 259
VMV LED 13L	130 W Type I	12842 lm	16.3 kg	–	–	2	1 2442 930
VMV LED 17L	168 W Type I	18195 lm	16.3 kg	–	–	2	1 2442 963
VMV LED 21L	196 W Type I	21404 lm	20.0 kg	–	–	3	1 2442 997
VMV LED 25L	232 W Type I	25685 lm	20.0 kg	–	–	3	1 2443 031
VMV LED 3L	29 W Typ III	3309 lm	8.1 kg	–	–	1	1 2374 782
VMV LED 5L	43 W Typ III	4468 lm	8.1 kg	–	–	1	1 2375 047
VMV LED 7L	62 W Typ III	6025 lm	8.1 kg	–	–	1	1 2375 107
VMV LED 9L	85 W Typ III	8618 lm	8.1 kg	–	–	1	1 2375 187
VMV LED 11L	113 W Typ III	10660 lm	8.1 kg	–	–	1	1 2402 998
VMV LED 13L	130 W Type III	12493 lm	16.3 kg	–	–	2	1 2442 941
VMV LED 17L	168 W Type III	17699 lm	16.3 kg	–	–	2	1 2442 974
VMV LED 21L	196 W Type III	20822 lm	20.0 kg	–	–	3	1 2443 009
VMV LED 25L	232 W Type III	24987 lm	20.0 kg	–	–	3	1 2443 042

Type	Content	Weight	Cable gland/ thread	Threaded plugs	Order No.
VMV LED top mounting module, (without lamp module, please order separately)					
JM5 ¹⁾	top mounting module for 1 1/2" pole mounting, 25°	1.6 kg	1 x 3/4" thread	–	22 250
PM5	top mounting module for 1 1/2" pole mounting, straight	2.5 kg	1 x 3/4" thread	–	00 080
CM20	top mounting module with M20 ceiling mounting	1.3 kg	4 x M20 thread	4 x M20	1 1843 088
TWM20	top mounting module with M20 wall mounting	2.0 kg	4 x M20 thread	4 x M20	1 1832 237
S812	mounting bracket (can only be used with top mounting module CM20)	1.0 kg	–	–	1 2268 927
JGA5520	Pole adapter for M20 cable gland (JM5/PM5)	0.45 kg	1 1/2" NPT pole thread, 1 x M20 thread	–	1 1826 774
JGA5525	Pole adapter for M25 cable gland (JM5/PM5)	0.45 kg	1 1/2" NPT pole thread, 1 x M25 thread	–	1 1826 777

¹⁾ only for VMV 3L-11L



Enclosure type 1



Enclosure type 2



Enclosure type 3

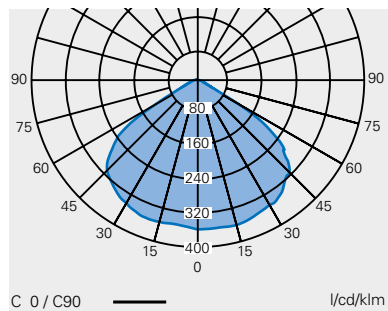


4.11

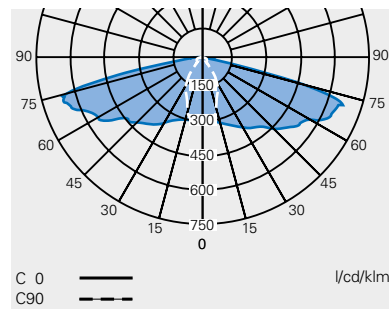
Polar curve / Dimension drawing

VMV LED

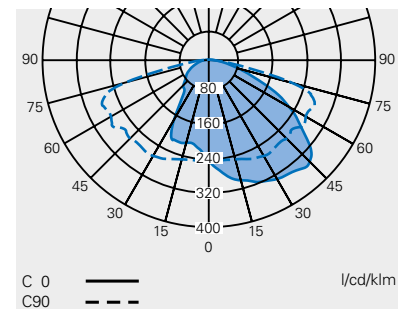
Polar curve VMV LED Type V



Polar curve VMV LED Type I

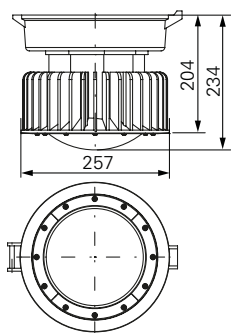


Polar curve VMV LED Type III

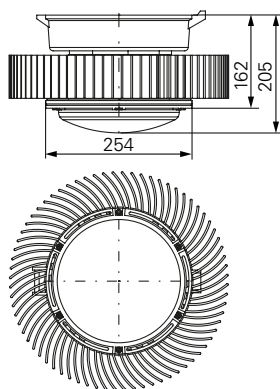


VMV LED

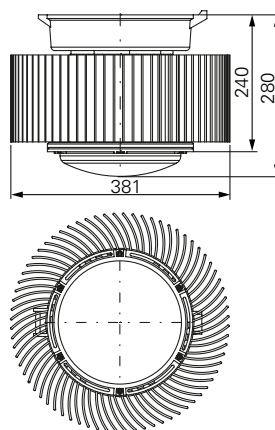
Enclosure type 1



Enclosure type 2

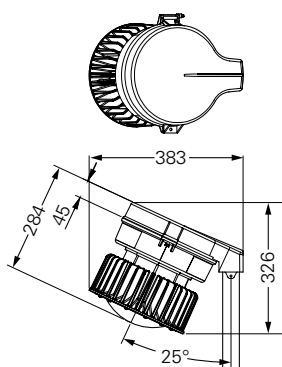


Enclosure type 3

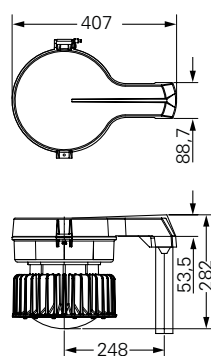


VMV LED

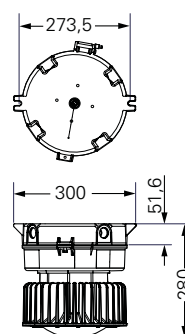
with top mounting module JM5



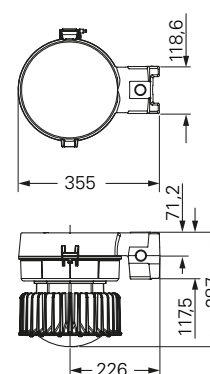
with top mounting module PM5



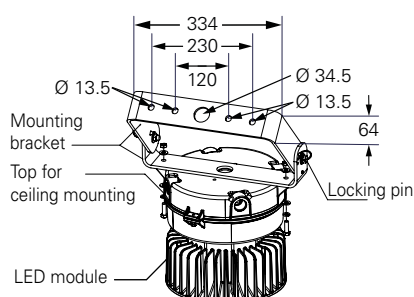
with top mounting module CM20



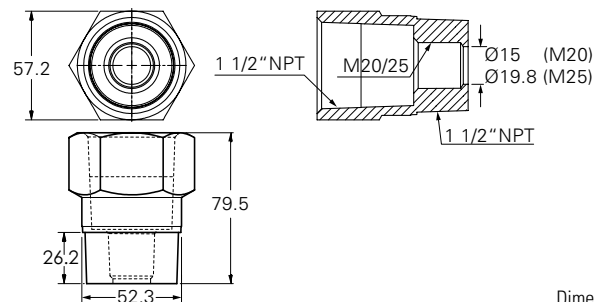
with top mounting module TWM20



Mounting bracket S812



Pole adapter JGA5520 / JGA5525



Dimensions in mm



Technical data

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	VMV LED 3L - 11L	VMV LED 13L - 17L	VMV LED 21L - 25L
Type Examination Certificate (gas)	DEMKO 13 ATEX 1475031X	DEMKO 13 ATEX 1475031X	DEMKO 13 ATEX 1475031X
EC-Type Examination Certificate (dust)	DEMKO 13 ATEX 1305741X	DEMKO 13 ATEX 1305741X	DEMKO 13 ATEX 1305741X
IECEX Certificate of Conformity	IECEX UL 13.0052X	IECEX UL 14.0031X	IECEX UL 14.0031X
Marking accd. to 2014/34/EU	Ⓢ II 3 G Ex nA nR IIC T6/T5 Gc Ⓢ II 2 D Ex tb IIIC T92/T87/72°C Db IP66	Ⓢ II 3 G Ex nA nR IIC T6/T5 Gc Ⓢ II 2 D Ex tb IIIC T87/72°C Db IP66	Ⓢ II 3 G Ex nA nR IIC T6/T5 Gc Ⓢ II 2 D Ex tb IIIC T87/72°C Db IP66
Marking accd. to IECEx	Ex nA nR IIC T6 Gc / Ex tb IIIC T87°C/T72 °C Db IP66	Ex nA nR IIC T6/T5 Gc / Ex tb IIIC T81°C/T66 °C Db IP66	Ex nA nR IIC T6/T5 Gc / Ex tb IIIC T86°C/T71 °C Db IP66
Permissible ambient temperature	-40 °C up to +65 °C	-40 °C up to +55 °C	-40 °C up to +55 °C
Lifetime fixture	200,000 h at t _a = +25 °C 60,000 h at t _a = +65 °C	170,000 h at t _a = +25 °C 60,000 h at t _a = +55 °C	170,000 h at t _a = +25 °C 60,000 h at t _a = +55 °C
Rated voltage	120 - 277 V AC / 108 - 250 V DC	100 - 277 V AC / 108 - 250 V DC	100 - 277 V AC / 108 - 250 V DC
Frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Power	¹⁾	¹⁾	¹⁾
Power factor cos φ	> 0.9	> 0.9	> 0.9
Circuit	electronic driver	electronic driver	electronic driver
Dimming control input	0 -10 V, 15 - 100 %	0 -10 V, 15 - 100 %	0 -10 V, 15 - 100 %
Protection class	I	I	I
Lamp / Illuminant	LED System, scope of delivery	LED System, scope of delivery	LED System, scope of delivery
Light colour/CRI	5000 K/70, 3000 K/80 on request	5000 K/70, 3000 K/80 on request	5000 K/70, 3000 K/80 on request
Rated luminous flux of the luminaire (typical, ± 10 %)	¹⁾	¹⁾	¹⁾
Dimensions (L x W x H)	280 x 295 x 230 mm	381 x 381 x 197 mm	381 x 381 x 274 mm
Connecting terminals	L, N, PE max. 2 x 2.5 mm ²	L, N, PE max. 2 x 2.5 mm ²	L, N, PE max. 2 x 2.5 mm ²
Enclosure colour	grey/black	grey/black	grey/black
Enclosure material	Copper-free aluminium with epoxy-powder coating	Copper-free aluminium with epoxy-powder coating	Copper-free aluminium with epoxy-powder coating
Weight	8.1 kg	16.3 kg	20.0 kg
Degree of protection accd. to EN 60529	IP66	IP66	IP66
Protective cover / protective bowl	Heat- and impact-resistant glass ²⁾	Heat- and impact-resistant glass ²⁾	Heat- and impact-resistant glass ²⁾

¹⁾ See table luminaire data

²⁾ Polycarbonate lens on request / frosted cover on request

Additional luminaire data

Type	Power	luminous flux of the luminaire type V (± 10 %)	Temperature class II 3 G			max. surface temp. II 2 D		
			TU ≤ 40 °C	TU ≤ 55 °C	TU ≤ 65 °C	TU ≤ 40 °C	TU ≤ 55 °C	TU ≤ 65 °C
VMV LED								
VMV 3L LED	29 W	3515 lm	T6	T5	T4	T72 °C	T87 °C	T92 °C
VMV 5L LED	43 W	5335 lm	T6	T5	T4	T72 °C	T87 °C	T92 °C
VMV 7L LED	62 W	7195 lm	T6	T5	T4	T72 °C	T87 °C	T92 °C
VMV 9L LED	85 W	9226 lm	T6	T5	T4	T72 °C	T87 °C	T92 °C
VMV 11L LED	113 W	11440 lm	T6	T5	T4	T72 °C	T87 °C	T92 °C
VMV 13L LED	131 W	13226 lm	T6	T5		T66 °C	T81 °C	
VMV 17L LED	168 W	18793 lm	T6	T5		T66 °C	T81 °C	
VMV 21L LED	196 W	22110 lm	T6	T5		T71 °C	T86 °C	
VMV 25L LED	232 W	26531 lm	T6	T5		T71 °C	T86 °C	

4.12

Ex-Pendant light fittings and floodlights of the series NVMV

4 (Zone 2, 21, 22)

NVMV pendant light fittings for high-pressure discharge lamps

The NVMV series of pendant light fittings for high-pressure discharge lamps in IEC metallic design is suitable for operation in hazardous areas in Zone 2 and Zones 21/22, in particular in harsh environments with high mechanical load, moisture and dust.

The lights are available in 2 sizes: The small enclosure for lamps from 70 W to 250 W (preferably 70-150 W); the large enclosure for lamps of 250 W and 400 W. All versions can be operated with both HSE and HIE lamps and are suitable for low and medium suspension heights. Thanks to their high degree of ingress protection and wide temperature range, this series can also be used under extreme conditions.

Wide range of applications

The NVMV lighting series is suitable for wall, ceiling and pole mounting. This makes them the ideal solution for almost any industrial applications, such as the illumination of open spaces, indoor areas and roadways in industrial plants in the oil and gas industry, chemical plants, waste disposal facilities, shipyards, power stations and mills.



Features

- NVMV S / M pendant light fittings for high pressure discharge lamps
- From 70 W to 400 W
- Wide temperature range from -45 °C up to +55 °C
- High degree of ingress protection IP66 for harsh environments

Ordering details

Type	Lamp / illuminant	Rated luminous flux	Weight	Cable gland/ thread	Screw plug	Order No.
NVMV small enclosure, with ceiling mounting						
S2MC 075 O 00	70 W HSE	5600 lm ¹⁾	7.6 kg	4 x M25 x 1.5	4 x M25	CCL 0807 178E
S2MC 105 O 00	100 W HSE	8500 lm ¹⁾	7.6 kg	4 x M25 x 1.5	4 x M25	CCL 0807 184E
S2MC 155 O 00	150 W HSE	14500 lm ¹⁾	7.6 kg	4 x M25 x 1.5	4 x M25	CCL 0807 190E
S2MC 255 O 00	250 W HSE	27000 lm ¹⁾	7.6 kg	4 x M25 x 1.5	4 x M25	CCL 0807 196E
M2MC 075 O 00	70 W HIE	5200 lm ¹⁾	7.6 kg	4 x M25 x 1.5	4 x M25	CCL 0807 113E
M2MC 105 O 00	100 W HIE	8500 lm ¹⁾	7.6 kg	4 x M25 x 1.5	4 x M25	CCL 0807 119E
M2MC 155 O 00	150 W HIE	12500 lm ¹⁾	7.6 kg	4 x M25 x 1.5	4 x M25	CCL 0807 125E
M2MC 255 O 00	250 W HIE	19000 lm ¹⁾	7.6 kg	4 x M25 x 1.5	4 x M25	CCL 0807 137E
NVMV small enclosure, with wall mounting						
S2MW 075 O 00	70 W HSE	5600 lm ¹⁾	8 kg	4 x M25 x 1.5	4 x M25	CCL 0807 202E
S2MW 105 O 00	100 W HSE	8500 lm ¹⁾	8 kg	4 x M25 x 1.5	4 x M25	CCL 0807 208E
S2MW 155 O 00	150 W HSE	14500 lm ¹⁾	8 kg	4 x M25 x 1.5	4 x M25	CCL 0807 214E
S2MW 255 O 00	250 W HSE	27000 lm ¹⁾	8 kg	4 x M25 x 1.5	4 x M25	CCL 0807 220E
M2MW 075 O 00	70 W HIE	5200 lm ¹⁾	8 kg	4 x M25 x 1.5	4 x M25	CCL 0807 143E
M2MW 105 O 00	100 W HIE	8500 lm ¹⁾	8 kg	4 x M25 x 1.5	4 x M25	CCL 0807 149E
M2MW 155 O 00	150 W HIE	12500 lm ¹⁾	8 kg	4 x M25 x 1.5	4 x M25	CCL 0807 155E
M2MW 255 O 00	250 W HIE	19000 lm ¹⁾	8 kg	4 x M25 x 1.5	4 x M25	CCL 0807 167E
NVMV small enclosure, for pole mounting						
S5NJ 075 O 00	70 W HSE	5600 lm ¹⁾	8 kg	1 x 1 1/2" NPT		CCL 0807 225E
S5NJ 105 O 00	100 W HSE	8500 lm ¹⁾	8 kg	1 x 1 1/2" NPT		CCL 0807 226E
S5NJ 155 O 00	150 W HSE	14500 lm ¹⁾	8 kg	1 x 1 1/2" NPT		CCL 0807 227E
S5NJ 255 O 00	250 W HSE	27000 lm ¹⁾	8 kg	1 x 1 1/2" NPT		CCL 0807 228E
M5NJ 075 O 00	70 W HIE	5200 lm ¹⁾	8 kg	1 x 1 1/2" NPT		CCL 0807 172E
M5NJ 105 O 00	100 W HIE	8500 lm ¹⁾	8 kg	1 x 1 1/2" NPT		CCL 0807 173E
M5NJ 155 O 00	150 W HIE	12500 lm ¹⁾	8 kg	1 x 1 1/2" NPT		CCL 0807 174E
M5NJ 255 O 00	250 W HIE	19000 lm ¹⁾	8 kg	1 x 1 1/2" NPT		CCL 0807 176E
NVMV large enclosure, for ceiling mounting						
S2MC 255 OL 0	250 W HSE	27000 lm ¹⁾	21 kg	4 x M25 x 1.5	4 x M25	CCL 1030 119E
S2MC 405 OL 0	400 W HSE	48000 lm ¹⁾	21 kg	4 x M25 x 1.5	4 x M25	CCL 1030 145E
M2MC 255 OL 0	250 W HIE	19000 lm ¹⁾	21 kg	4 x M25 x 1.5	4 x M25	CCL 1030 106E
M2MC 405 OL 0	400 W HIE	34000 lm ¹⁾	21 kg	4 x M25 x 1.5	4 x M25	CCL 1030 132E
NVMV large enclosure, for wall mounting						
S2MW 255 OL 0	250 W HSE	27000 lm ¹⁾	21.4 kg	4 x M25 x 1.5	4 x M25	CCL 1030 125E
S2MW 405 OL 0	400 W HSE	48000 lm ¹⁾	21.4 kg	4 x M25 x 1.5	4 x M25	CCL 1030 151E
M2MW 255 OL 0	250 W HIE	19000 lm ¹⁾	21.4 kg	4 x M25 x 1.5	4 x M25	CCL 1030 112E
M2MW 405 OL 0	400 W HIE	34000 lm ¹⁾	21.4 kg	4 x M25 x 1.5	4 x M25	CCL 1030 138E
NVMV large enclosure, for pole mounting						
S5NJ 255 OL 0	250 W HSE	27000 lm ¹⁾	21.4 kg	1 x 1 1/2" NPT		CCL 1030 130E
S5NJ 405 OL 0	400 W HSE	48000 lm ¹⁾	21.4 kg	1 x 1 1/2" NPT		CCL 1030 156E
M5NJ 255 OL 0	250 W HIE	19000 lm ¹⁾	21.4 kg	1 x 1 1/2" NPT		CCL 1030 117E
M5NJ 405 OL 0	400 W HIE	34000 lm ¹⁾	21.4 kg	1 x 1 1/2" NPT		CCL 1030 143E

¹⁾ depends on used lamps



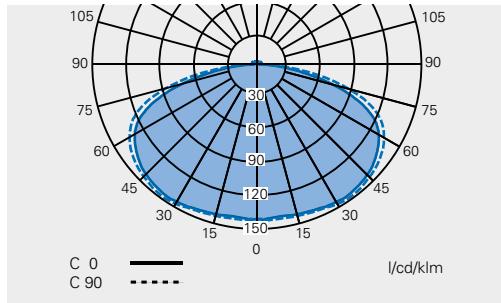
Accessories for NVMV...

Type	Content	small enclosure	large enclosure	OU	Order No.
P 22	Wire guard made from stainless steel	X		1	78 24
RD 70	External reflector, symmetrically	X		1	11 718
RD 739	External reflector, symmetrically		X	1	25 90
RA 70	External reflector, asymmetrically	X		1	96 20
RA 739	External reflector, asymmetrically		X	1	25 88
S 890	Quick installation bracket	X		1	11 923 847
CHR	Installation bracket for rope/chain fixing method	X	X	1	CHR 7326
P 33	Wire guard made from stainless steel		X	1	26 249
HSE 70 W	High pressure sodium lamp 70 W E27	X		1	3 2475 900 012
HSE 100 W	High pressure sodium lamp 100 W E40	X		1	3 2475 900 013
HSE 150 W	High pressure sodium lamp 150 W E40	X		1	3 2475 900 014
HSE 250 W	High pressure sodium lamp 250 W E40	X	X	1	CGS 3238 600 P1009
HSE 400 W	High pressure sodium lamp 400 W E40			1	CGS 3238 700 P1009
HIE 70 W	High pressure metal halide lamp 70 W E27	X		1	3 2475 900 010
HIE 100 W	High pressure metal halide lamp 100 W E27	X		1	3 2475 900 011
HIE 150 W	High pressure metal halide lamp 150 W E27	X		1	3 2475 900 019
HIE 250 W/	High pressure metal halide lamp 250 W E40	X	X	1	3 2475 900 017
HIE 400 W/	High pressure metal halide lamp 400 W E40	X	X	1	3 2475 900 018

Scope of delivery without lamp and fixing accessories, if not stated otherwise.
Metal cable glands see catalogue part 2: 2.3.12 ff

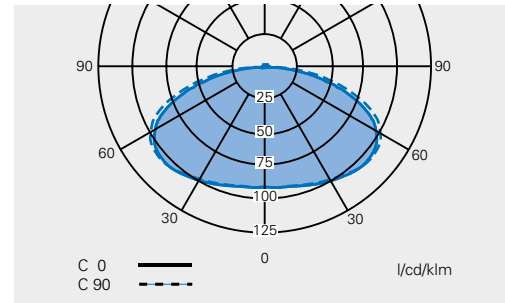
NVMV small enclosure

Polar curve NVMV 70 - 250 W (with external reflector RD 70)

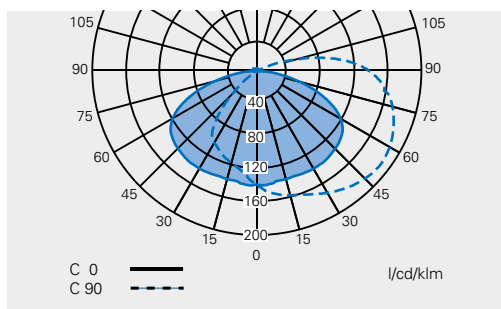


NVMV large enclosure

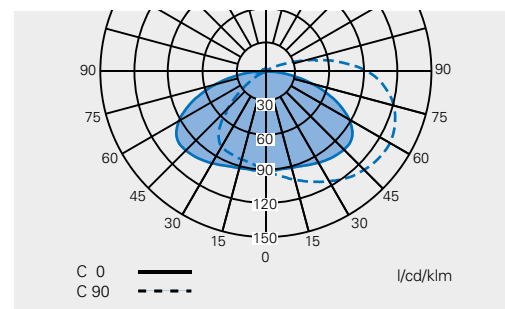
Polar curve NVMV 250 - 400 W (with external reflector RD 739)



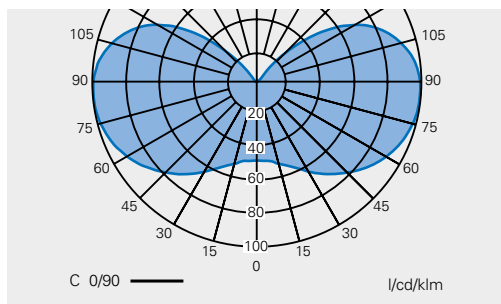
Polar curve NVMV 70 - 250 W (with external reflector RA 70)



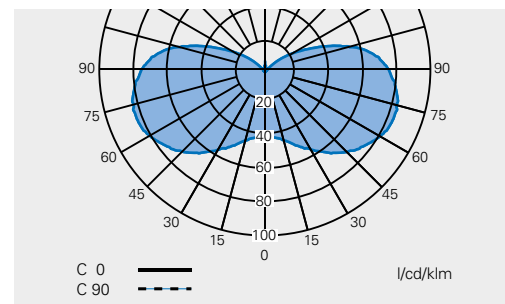
Polar curve NVMV 250 - 400 W (with external reflector RA 739)



Polar curve NVMV 70 - 250 W (without external reflector)

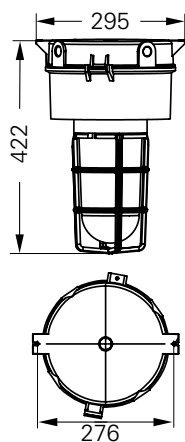


Polar curve NVMV 250 - 400 W (without external reflector)

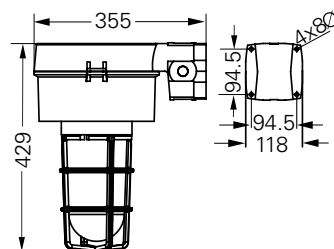


NVMV small enclosure

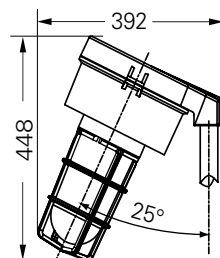
Ceiling mounting



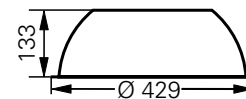
Wall mounting



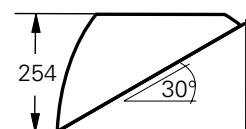
Pole mounting 25 °



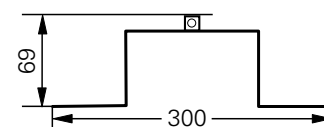
Reflector RD70



Reflector RD70

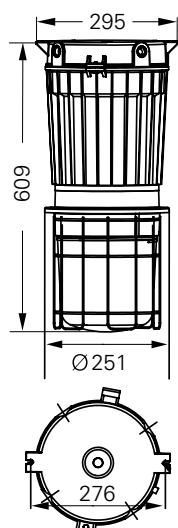


Mounting bracket

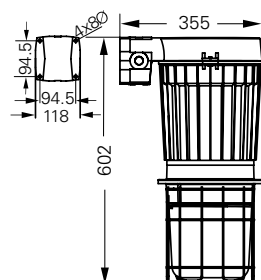


NVMV large enclosure

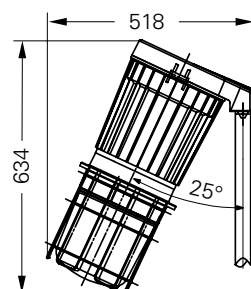
Ceiling mounting



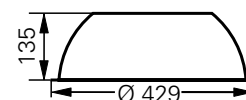
Wall mounting



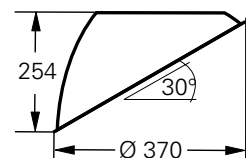
Pole mounting 25 °



Reflector RD 739



Reflector RD 739





Technical data

4

	NVMV - small enclosure	NVMV - large enclosure
Type Examination Certificate	LCIE 10 ATEX 1005 (Gas) LCIE 10 ATEX 3029 (Dust)	LCIE 10 ATEX 1005 (Gas) LCIE 10 ATEX 3029 (Dust)
EC-Type Examination Certificate	II 3 G Ex nR IIC T¹⁾ II 2 D Ex tb IIIC T¹⁾ °C Db IP66	II 3 G Ex nR IIC T¹⁾ II 2 D Ex tb IIIC T¹⁾ °C Db IP66
Permissible ambient temperature	-45 °C up to +55 °C	-45 °C up to +55 °C
Rated voltage	230 V AC ²⁾	230 V AC ²⁾
Frequency	50 Hz ²⁾	50 Hz ²⁾
Power factor cos φ	> 0.9	> 0.9
Circuit	conventional ballast	conventional ballast
Protection class	I	I
Lamp / Illuminant	HSE / HIE 70 - 150 W	HSE / HIE 250 - 400 W
Lamp name	High pressure sodium lamp / Metal-Halide lamp	High pressure sodium lamp / Metal-Halide lamp
Rated luminous flux	¹⁾	¹⁾
Lamp cap	E27 / E40	E40
Light output ratio	74 %	78 %
Connecting terminals	L, N, PE max. 3 x 6 mm ²	L, N, PE max. 3 x 6 mm ²
Enclosure colour	grey	grey
Enclosure material	light alloy with powder coating	light alloy with powder coating
Weight	7.6 kg	21 kg
Cable glands / gland plates / enclosure drilling	thread 4 x M25 x 1.5 with Blanking plug	thread 4 x M25 x 1.5 with Blanking plug
Degree of protection accd. to EN 60529	IP66	IP66
Protective cover / protective bowl	borosilicate glass	borosilicate glass

Additional luminaire data

Type	Power	luminous flux of the luminaire ³⁾	Temperature class II 2 G		max. surface temp. II 2 D	
			without reflector	with reflector	without reflector	with reflector
NVMV... (small enclosure - SE)						
HSE	70 W	5600 lm	T4	T4	114 °C	119 °C
HSE	100 W	8800 lm	T4	T4	114 °C	119 °C
HSE	150 W	14000 lm	T3	T3	137 °C	155 °C
HSE	250 W	25000 lm	T3	T2	183 °C	204 °C
HIE	70 W	5100 lm	T4	T4	114 °C	119 °C
HIE	100 W	7800 lm	T4	T4	114 °C	119 °C
HIE	150 W	11000 lm	T3	T3	137 °C	155 °C
HIE	250 W	19000 lm	T3	T2	183 °C	204 °C
NVMV... (large enclosure - LE)						
HSE	250 W	25000 lm	T3	T3	152 °C	152 °C
HSE	400 W	48000 lm	T3	T3	174 °C	190 °C
HIE	250 W	33000 lm	T3	T3	152 °C	152 °C
HIE	400 W	34000 lm	T3	T2	174 °C	208 °C

¹⁾ see table luminaire data

²⁾ other voltages and Frequencies on request

³⁾ depends on used lamps

Ex-Floodlights of the series FMV LED / NFMV / NSSFMV

4 (Zone 2, 21, 22)

The powerful LED floodlights FMV/nFMV...LED

The new series of energy-saving FMV floodlights in LED technology are ideal for all general lighting applications in explosive gas atmospheres Zone 2 and in explosive dust atmospheres Zone 21 and 22.

The floodlights with a light output from 3189 lm up to 15181 lm can be used to replace comparable conventional light sources with an equivalent power of 50 W up to >1000 W. The new types NFMV 25L and 50L can even replace highest luminous flux power up to >1000 W of conventional HP lamps.

High efficient power LED modules with more than 112 lumen per watt enables up to 70 % energy cost reduction compared to HID fixtures.

LED technology for harsh environments

Due to the particularly solid construction of the housing and the vibration resistance of the LED module, the FMV LED floodlight is resistant to impact, shock and vibration. As a result, it represents the ideal lighting concept for use in areas with difficult environmental conditions. Thanks to the non-sensitive LED technology, even extreme temperatures from -40 °C up to +55 °C are not a problem. The robust, powder coated light metal housing in the degree of protection IP 66 and an impact-resistant lens meet the highest corrosion protection and mechanical resistance requirements. The advantages of the integrated, advanced LED technology with a high luminous flux and, at the same time, an extremely low energy consumption are a long

service life and a high level of efficiency.

NFMV floodlights for high-pressure discharge lamps

The NFMV floodlights with high-gloss internal reflectors for high-pressure discharge lamps from 150 W up to 400 W are suited for operation in hazardous areas in Zone 2 and Zone 21 and ambient temperatures of -25 °C to +50 / 45 °C. The light metal housing with an epoxy resin powder coating and a glass that is resistant to temperature changes and impacts meets the requirements for the degree of protection IP66. The modular design allows a fast and economical installation. A durable sealing system for use in extreme ambient conditions offers additional security. The restricted breathing design allows high light outputs and, at the same time, a favourable temperature class T3.

Impact-resistant glass meets the requirements of the degree of protection IP66. The modular design allows a fast and economical installation. A durable sealing system for use in extreme ambient conditions offers additional security. The restricted breathing design allows high light outputs and, at the same time, a favourable temperature class T3.

Wide range of applications

The particularly rugged construction, the high degree of protection and the wide temperature range make these light fittings particularly suitable for offshore applications, in the oil and gas industry and in chemical plants, where explosive atmospheres are to be expected. Further applications include use in explosive gas atmospheres in Zone 2 areas such as oil refineries, ships and drilling platforms, chemical, petrochemical and LNG facilities, waste and wastewater facilities, as well as industrial applications indoors and outdoors. Applications in explosive dust atmospheres in Zone 21 and 22 include flour mills, sugar mills, food production, wood processing and other plants with combustible dusts. The NFMV / NSSFMV floodlights feature an adjustable mounting bracket and are suitable for wall and ceiling mounting in medium and large suspension heights. Accessories for pole mounting are also available.

Stainless steel NSSFMV floodlights for particularly harsh environments

The NSSFMV floodlights with high-gloss internal reflectors for high-pressure discharge lamps from 150 W to 400 W fulfil the requirements for hazardous areas in Zone 2 and Zone 22 and ambient temperatures from -25 °C to +55 / 50 °C particularly in harsh environments with a high level of mechanical load, moisture and dust. The stainless steel enclosure with a temperature-change and im-

Features

- FMV LED floodlights for high power LED modules
- NFMV and NSSFMV luminaires for high-pressure discharge lamps from 150 W to 400 W
- Wide temperature range according to type from -45 °C up to +55 °C
- High degree of protection IP66 for harsh environments



Ordering details

Type	Lamp / illuminant	Rated luminous flux of the luminaire	Weight	Cable gland/ thread	Screw plug	Order No.
FMV LED						
FMV 3L CY/UNV1 76 M20	LED System 28 W ¹⁾	3189 lm	13.9 kg	2 x M20 metal thread	1 x M20	1 2564 443
FMV 5L CY/UNV1 76 M20	LED System 45 W ¹⁾	5183 lm	13.9 kg	2 x M20 metal thread	1 x M20	1 2564 445
FMV 7L CY/UNV1 76 M20	LED System 62 W ¹⁾	7095 lm	13.9 kg	2 x M20 metal thread	1 x M20	1 2564 446
FMV 9L CY/UNV1 76 M20	LED System 79 W ¹⁾	9132 lm	14.5 kg	2 x M20 metal thread	1 x M20	1 2564 383
FMV 11L CY/UNV1 76 M20	LED System 99 W ¹⁾	11107 lm	14.5 kg	2 x M20 metal thread	1 x M20	1 2564 382
FMV 13L CY/UNV1 76 M20	LED System 112 W ¹⁾	13100 lm	14.5 kg	2 x M20 metal thread	1 x M20	1 2564 384
FMV 15L CY/UNV1 76 M20	LED System 131 W ¹⁾	15.181 lm	14.5 kg	2 x M20 metal thread	1 x M20	1 2595 564
FMV 3L CY/UNV1 76 M25	LED System 28 W ¹⁾	3189 lm	13.9 kg	2 x M25, metal thread	1 x M25	1 2564 448
FMV 5L CY/UNV1 76 M25	LED System 45 W ¹⁾	5183 lm	13.9 kg	2 x M25, metal thread	1 x M25	1 2564 449
FMV 7L CY/UNV1 76 M25	LED System 62 W ¹⁾	7095 lm	13.9 kg	2 x M25, metal thread	1 x M25	1 2564 450
FMV 9L CY/UNV1 76 M25	LED System 79 W ¹⁾	9132 lm	14.5 kg	2 x M25, metal thread	1 x M25	1 2564 451
FMV 11L CY/UNV1 76 M25	LED System 99 W ¹⁾	11107 lm	14.5 kg	2 x M25, metal thread	1 x M25	1 2564 452
FMV 13L CY/UNV1 76 M25	LED System 112 W ¹⁾	13100 lm	14.5 kg	2 x M25, metal thread	1 x M25	1 2564 385
FMV 15L CY/UNV1 76 M25	LED System 131 W ¹⁾	15.181 lm	14.5 kg	2 x M25 metal thread	1 x M25	1 2595 600

nFMV 25L

NFMV 25L CY/UNV1 76 M20	LED System 263 W ¹⁾	26.240 lm	23.6 kg	2 x M20, metal thread, 1 x M20 cable gland Ø 10 - 16 mm	1 x M20	1 2521 842
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nFMV 50L

NFMV 50L CY/UNV1 76 M20	LED System 531 W ¹⁾	53.890 lm	48.1 kg	2 x M20, metal thread, 1 x M20 cable gland Ø 10 - 16 mm	1 x M20	1 2649 227
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NFMV

NFMV HSE 150 W, 230 V 50 Hz	HSE 150 W	14000 lm	15.5 kg	2 x M20 metal thread	1 x M20	NOR 000 005 180 021
NFMV HSE 150 W, 240 V 50 Hz	HSE 150 W	14000 lm	15.5 kg	2 x M20 metal thread	1 x M20	NOR 000 005 180 022
NFMV HSE/HIE 250 W, 230 V 50 Hz	HSE/HIE 250 W	25000 lm / 19000 lm	16.9 kg	2 x M20 metal thread	1 x M20	NOR 000 005 180 024
NFMV HSE/HIE 250 W, 240 V 50 Hz	HSE/HIE 250 W	25000 lm / 19000 lm	16.9 kg	2 x M20 metal thread	1 x M20	NOR 000 005 180 025
NFMV HSE/HIE 400 W, 230 V 50 Hz	HSE/HIE 400 W	48000 lm / 33000 lm	15.5 kg	2 x M20 metal thread	1 x M20	NOR 000 005 180 027
NFMV HSE/HIE 400 W, 240 V 50 Hz	HSE/HIE 400 W	48000 lm / 33000 lm	15.5 kg	2 x M20 metal thread	1 x M20	NOR 000 005 180 028

NSSFMV

NSSFMV SY 150, 230 V 50 Hz M25	150 W HSE	14000 lm	16.9 kg	2 x M25, metal thread	2 x M25	CCL 110 3421
NSSFMV SY 250, 230 V 50 Hz M25	250 W HSE	25000 lm	17.5 kg	2 x M25, metal thread	2 x M25	CCL 110 3469
NSSFMV MY 250, 230 V 50 Hz M25	250 W HIE	19000 lm	17.5 kg	2 x M25, metal thread	2 x M25	CCL 110 3470
NSSFMV SY 400, 230 V 50 Hz M25	400 W HSE	48000 lm	18.6 kg	2 x M25, metal thread	2 x M25	CCL 110 3517
NSSFMV MY 400, 230 V 50 Hz M25	400 W HIE	33000 lm	18.9 kg	2 x M25, metal thread	2 x M25	CCL 110 3518

¹⁾ scope of delivery

Accessories

Type	Content	OU	Rated luminous flux	Order No.
Slip fitter 2" for pole mounting		1		20 49
HSE 150 W	high pressure sodium lamp 150 W E40	1	14000 lm	NOR 000 000 511 300
HSE 250 W	high pressure sodium lamp 250 W E40	1	25000 lm	CGS 3238 600 P1009
HSE 400 W	high pressure sodium lamp 400 W E40	1	48000 lm	CGS 3238 700 P1009
HIE 250 W	Metal-halide lamp 250 W	1	17000 lm	CGS 323 7990 P1007
HIE 400 W	Metal-halide lamp 400 W	1	33000 lm	CGS 323 7990 P1008

Wire guard and external visor on request for FMV LED

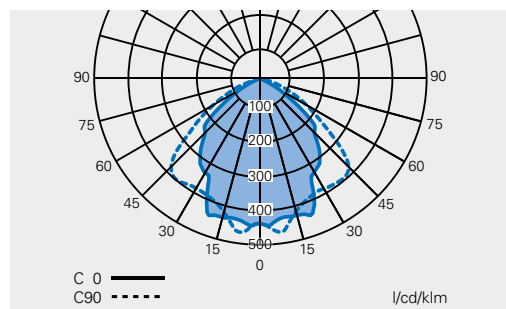
Scope of delivery without lamp and fixing accessories, if not stated otherwise. Metal cable glands see catalogue part 2: 2.3.12 ff

4.13

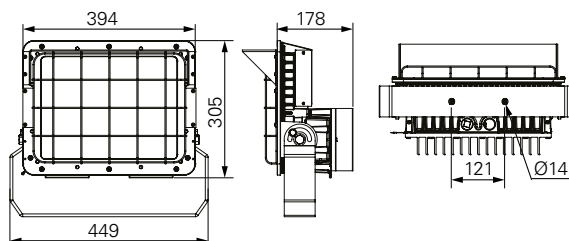
Dimension drawing / Polar curve

FMV LED / NFMV / NSSFMV

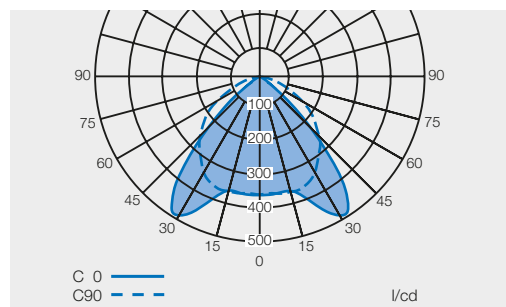
Polar curve FMV LED



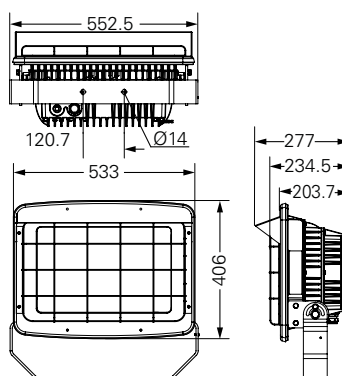
FMV LED



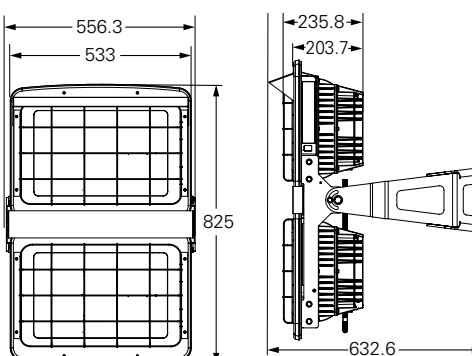
Polar curve nFMV 25L/50L wide beam



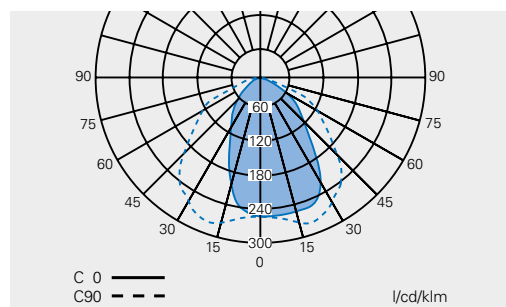
nFMV 25L LED



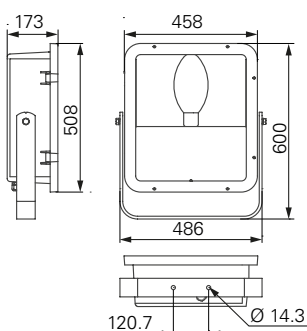
nFMV 50L LED



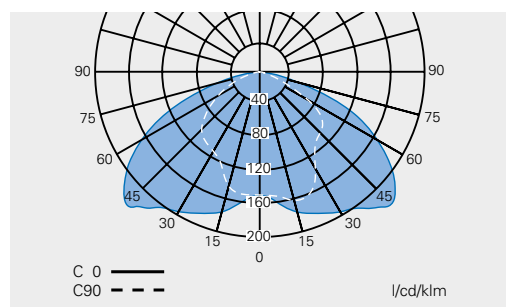
Polar curve NFMV 150 - 400 W



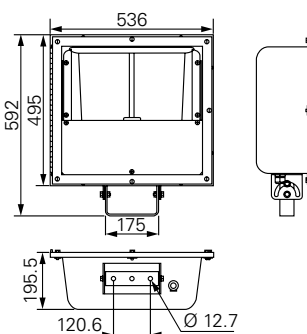
NFMV



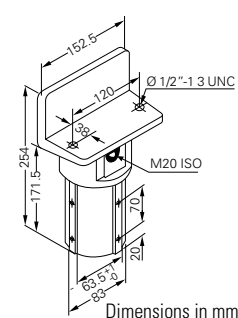
Polar curve NSSFMV



NSSFMV



Slip fitter





Technical data

4

	FMV LED	nFMV LED 25/50L
Type Examination Certificate (gas)	DEMKO 15 ATEX 1383X	DEMKO 15 ATEX 1225X
EC-Type Examination Certificate (dust)	DEMKO 15 ATEX 1377X	DEMKO 15 ATEX 1226X
IECEx Certificate of Conformity	IECEx UL 15.0029	IECEx UL 15.0040X
Marking accd. to 2014/34/EU	Ⓢ II 3 G Ex nA IIC T5/ T4 Gc Ⓢ II 2 D Ex tb IIIC T65 °C/T80 °C Db	Ⓢ II 3 G Ex nA IIC T4 Gc Ⓢ II 2 D Ex tb IIIC T76 °C Db IP66
Marking accd. to IECEx	Ex nA IIC T5/T4 Gc Ex tb IIIC T65 °C/T80 °C Db	Ex nA IIC T4 Gc Ta -30 °C to +55 °C Ex tb IIIC T 76 °C Db Ta -30 °C to +40 °
Permissible ambient temperature	-40 °C up to +55 °C	-30 °C bis +55 °C (gas) / -30 °C up to +40 °C (dust)
Lifetime fixture	60,000 h at t _a = +55 °C / 150,000 h at t _a = +25 °C	50,000 h bei t _a = +55 °C / 100,000 h bei t _a = +25 °C
Rated voltage	100 - 277 V AC / 108 - 250 V DC	120 - 277 V AC / 127 - 250 V DC
Frequency	50 - 60 Hz	0/50 - 60 Hz
Power factor cos φ	≥ 0.9	≥ 0.9
Circuit	electronic driver	electronic driver
Protection class	I	I
Lamp / Illuminant	LED System 28 - 131 W	LED System 263 W (NFMV 25L) / LED System 531 W (NFMV 50L)
Light colour / CRI	5000 K / R _a 70, 3000 K / R _a 80 on request	5000 K / R _a 70
Dimensions (L x W x H)	394 x 178 x 305 mm	533 x 204 x 406 mm (NFMV 25L) / 533 x 204 x 825 mm (NFMV 50L)
Connecting terminals	L, N and PE; 2 x 4 mm ²	L, N and PE; 2 x 4 mm ²
Enclosure colour	grey	grey
Enclosure material	light alloy with powder coating	light alloy with powder coating
Weight	14.5 kg	23,6 kg (NFMV 25L) / 48,1 kg (NFMV 50L)
Cable glands / gland plates / enclosure drilling	metal thread 2 x M20 x 1.5, 1 x M20 plugged or metal thread 2 x M25 x 1.5, 1 x M25 plugged	metal thread 2 x M25 x 1.5, 1 x M25 plugged ¹⁾
Type of mounting	mounting bracket	mounting bracket
Degree of protection accd. to EN 60529	IP66	IP66
Protective cover / protective bowl	borosilicate glass	borosilicate glass

Additional luminaire data

Type	Power	Rated luminous flux of the luminaire (± 10 %)	Temperature class II 3 G	
			TU ≤ 40 °C	TU ≤ 55 °C
FMV LED				
FMV 3L LED	28 W	3189 lm	T5	T4
FMV 5L LED	45 W	5183 lm	T5	T4
FMV 7L LED	62 W	7095 lm	T5	T4
FMV 9L LED	79 W	9132 lm	T5	T4
FMV 11L LED	99 W	11107 lm	T5	T4
FMV 13L LED	112 W	13100 lm	T5	T4
FMV 15L LED	131 W	15181 lm	T5	T4
nFMV 25L LED	263 W	26.240 lm	T4	T4
nFMV 25L LED	531 W	53.890 lm	T4	T4



4 Technical data

	NFMV	NSSFMV
Type Examination Certificate	DEMKO 10 ATEX 0907694	LCIE 11 ATEX 1014 X (Gas) LCIE 11 ATEX 3101 X (Staub)
EC-Type Examination Certificate	DEMKO 10 ATEX 147285	
IECEx Certificate of Conformity		IECEx CQM 12.0004X
Marking accd. to 2014/34/EU	II 3 G Ex nR II T3 II 2 D Ex tD A21 IP66 T ²⁾	II 3 G Ex nR II T3/T2 II 2 D Ex tb IIIC T ²⁾ Db
Marking accd. to IECEx		Ex nR IIC T3/T2 Gc Ex tb IIIC T125°C/T205°C IP66
Permissible ambient temperature	-25 °C up to +55 °C (< 400 W) -25 °C up to +50 °C (400 W)	-45 °C up to +55 °C (≤ 250 W)/ -45 °C up to +50 °C (400 W)
Rated voltage	230 V ¹⁾	230 V ¹⁾
Frequency	50 Hz ¹⁾	50 Hz ¹⁾
Power factor cos φ	≥ 0.9	≥ 0.9
Protection class	I	I
Lamp / Illuminant	HSE/HIE lamp 150 - 400 W	HSE/HIE lamp 150 - 400 W
Lamp cap	E40 accord. IEC 60238	E40 accord. IEC 60238
Rated luminous flux	¹⁾	¹⁾
Light output ratio	60 %	68 %
Dimensions (L x W x H)	600 x 458 x 173 mm	592 x 535 x 193 mm
Connecting terminals	L, N and PE; 2 x 4 mm ²	L, N, PE max. 2 x 2.5 mm ²
Enclosure colour	grey	natural
Enclosure material	light alloy with powder coating	stainless steel
Weight	15.5 kg	16.9 kg
Cable glands / gland plates / enclosure drilling	2 x M20 x 1.5 thread, 1 x M20 plugged	2 x M20 x 1.5 thread, 1 x M20 plugged
Type of mounting	mounting bracket	mounting bracket
Degree of protection accd. to EN 60529	IP66	IP66
Protective cover / protective bowl	borosilicate glass	borosilicate glass

Additional luminaire data NFMV and NSSFMV

Type	Power	Rated luminous flux ³⁾	Temperature class II 3 G			max. surface temp. II 2 D		
			T _U ≤ 40 °C	T _U ≤ 50 °C	T _U ≤ 55 °C	T _U ≤ 40 °C	T _U ≤ 50 °C	T _U ≤ 55 °C
NFMV...								
HSE	150 W	14000 lm	T5	T3	--	T100 °C	T200 °C	--
HSE	250 W	25000 lm	T5	T3	--	T100 °C	T200 °C	--
HIE	250 W	19000 lm	T3		T3	T200 °C		T200 °C
HSE / HIE	400 W	48000 lm / 33000 lm	T3	T3	--	T200 °C	T200 °C	--
NSSFMV...								
HSE	150 W	14000 lm	T4	T3	T3	T125 °C	T135 °C	T140 °C
HSE / HIE	250 W	25000 lm / 19000 lm	T3	T3	T3	T160 °C	T170 °C	T175 °C
HSE / HIE	400 W	48000 lm / 33000 lm	T3	T2	--	T195 °C	T205 °C	--

¹⁾ other frequencies on request²⁾ see table luminaire data³⁾ depends on used lamps