

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.

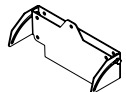
Metal cable glands see catalogue part 2: 2.3.12 ff

Accessories FZD 04

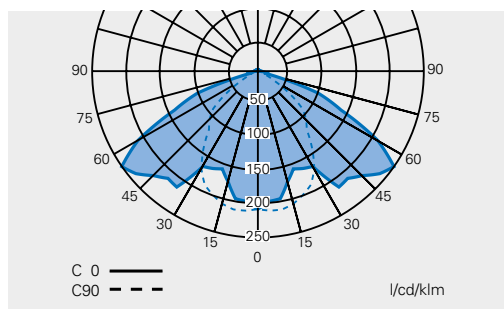
Type	Content	FZD 04 250 W	FZD 04 400 W	OU	Order No.
Lamp module	Lamp module 250 W/400 W complete with internal reflector				
	narrow beam	X	X	1	1 3041 000 011
	wide beam	X	X	1	1 3041 000 012
Slip fitter	Adapter for 1 1/4" pole mounting (Innen-Ø = 47.5 mm) compl. with fixing screws	X	X	1	NOR 000 005 190 021
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

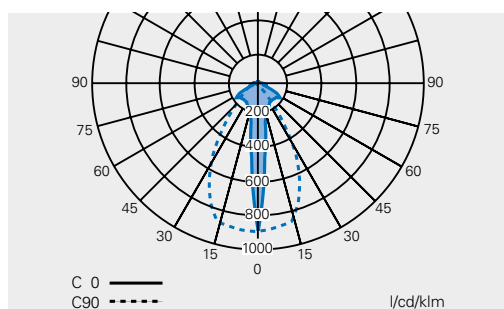
Other lamps on request



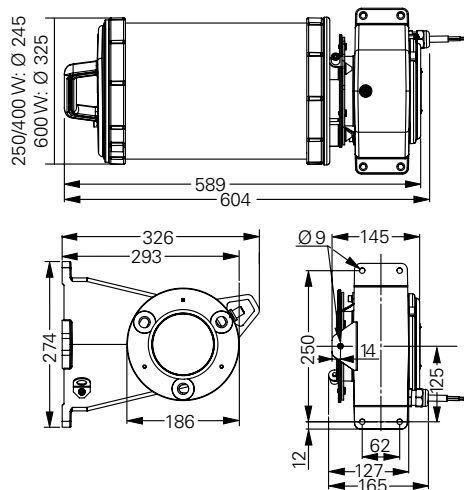
FZD ... with reflector wide beam



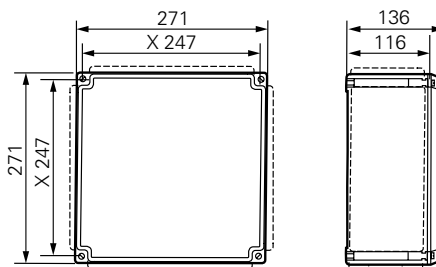
FZD ... with reflector narrow beam



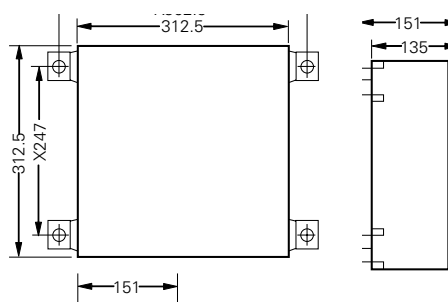
FZD 04 250/400 W



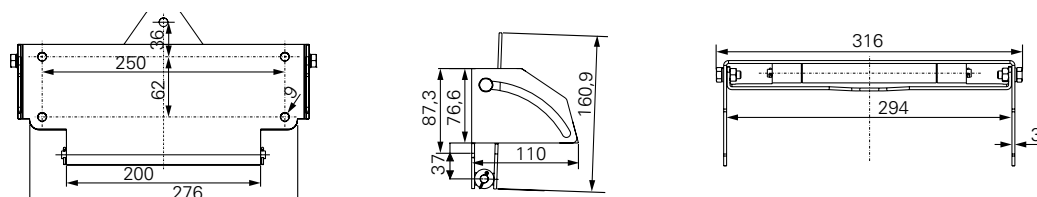
Ballast enclosure: plastic version



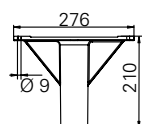
Ballast enclosure: stainless steel version



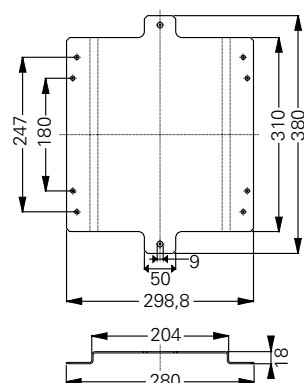
Swivel bracket



Slip fitter



Mounting plate





Technical data

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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