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Worldwide English



13106AQD07 - Diffuse reflective sensor, Sn=200mm, 4L, 10-30VDC, NPN, PNP, M18, insulated material, M12



135621 13106AQD07

[Overview](#) [Specifications](#) [Resources](#)



135621 13106AQD07

Diffuse reflective sensor, Sn=200mm, 4L, 10-30VDC, NPN, PNP, M18, insulated material, M12

Alternate Catalog No.

13106AQD07

EL-Nummer (Norway)

4315339

Optical sensor, comet series, polyurethane housing with 18 mm diameter and flattened side for extra mounting comfort, IP67_x, high vibration and impact resistance. The Comet series features one-way light barrier reflection light barrier diffuse mode sensors with or without background suppression, simplified installation using visible scanning beams, selectable light or dark operation, short-circuit protection, optical cross-talk protection at closely mounted sensors, adjustable gain factor, optional connection of fiber-optic light guides

- [Delivery program](#)
- [Technical data](#)
- [Design verification as per IEC/EN 61439](#)
- [Technical data ETIM 7.0](#)
- [Approvals](#)
- [Dimensions](#)

Delivery program

Basic function

Optical sensors

Product range

Comet Series

For connection of:

Plug-in connection M12 x 1

Design (outer dimensions)

M18 x 1 mm

Rated operational voltage [U_b]

10 - 30 V DC

Rated switching distance [S_n]

200 mm

Description

Beam straight

Can be expanded with fiber optic cable → Accessories

Connection

4-wire

Function

Reflected-light beam

Type of light

Infra-red

Material

Insulated material

Switching type

NPN

PNP

Switching principle

Adjustable bright/dark switching

Information relevant for export to North America

Product Standards UL 508; CSA-C22.2 No. 14; IEC60947-5-2; CE marking

UL File No. E117028

UL Category Control No. NRKH, NRKH7

CSA File No. 50513

CSA Class No. 3211-07

North America Certification UL listed, CSA certified

Max. Voltage Rating 30 V DC

Degree of Protection IEC: IP68, IP69K; UL/CSA Type: 1, 4, 6

Technical data

General

Standards

IEC/EN 60947-5-2

Ambient temperature

-40 - +70

Mechanical shock resistance

100

Shock duration 3 ms g

Degree of Protection

IP67

Characteristics

Rated switching distance Rated switching distance [S_n]

200 mm

Range

0.2 mm

Rated operational voltage [U_b]

10 - 30 V DC

Operating current in the switched state at 24 V DC [I_b]

30 mA

Maximum load current [I_e]

< PNP: 100

NPN: 250 (120 > 55 °C) mA

Response time

1 ms

Switching state display

Red LED

Protective functions

Short-circuit protective device

Protection against polarity reversal

Connection

4-wire

Style Design (outer dimensions)

M18 x 1 mm

For connection of:

Plug-in connection M12 x 1

Material

Insulated material

Design verification as per IEC/EN 61439

Operating ambient temperature min.

-40 °C

Operating ambient temperature max.

+70 °C

Technical data ETIM 7.0

Sensors (EG000026) / Light scanner, energetic (EC001821)

Electric engineering, automation, process control engineering / Binary sensor technology, safety-related sensor technology / Optoelectronic sensor / Light scanner, energetic (ecl@ss10.0.1-27-27-09-03 [AKP252013])

Operating distance

0 - 0 mm

Pre failure notice

No

With time function

No
Max. switching distance
200 mm
Max. output current
250 mA
Reflector included
No
Analogue output 0 V ... 10 V
No
Analogue output 0 mA ... 20 mA
No
Analogue output 4 mA ... 20 mA
No
Analogue output -10 V ... +10 V
No
With other analogue output
No
Setting procedure
Manual adjustment
With communication interface analogue
No
With communication interface AS-Interface
No
With communication interface CANOpen
No
With communication interface DeviceNet
No
With communication interface Ethernet
No
With communication interface INTERBUS
No
With communication interface PROFIBUS
No
With communication interface RS-232
No
With communication interface RS-422
No
With communication interface RS-485
No
With communication interface SSD
No
With communication interface SSI
No
Number of semiconductor outputs with signalling function
2
Number of contact energized outputs with signalling function
0
Number of protected semiconductor outputs
0
Number of protected contact energized outputs
0
Type of interface for safety communication
Other
Type of electric connection
Connector M12
Type of switching output
PNP/NPN
Type of switch function
Programmable/configurable
Operation agent-safety class
Safety class 2
Explosion safety category for gas
None
Explosion safety category for dust
None
Construction type housing
Cylinder, screw-thread
Width sensor
0 mm

Diameter sensor
18 mm
Height of sensor
0 mm
Length of sensor
56 mm
Sensing mode
Light-/dark switching
Material of optical surface
Plastic
Material housing
Plastic
Max. output current at protected output
0 mA
Mn. reflector distance
0 mm
Time of reaction
1 ms
Transmission range of the safety field
0 m
Switching frequency
500 Hz
Type of safety acc. IEC 61496-1
"Switching voltage of OSSD at state ""high""
0 V
Voltage type
DC
With monitoring function downstream switching devices
No
Laser protection class
None
Wavelength of the sensor
0 nm
Type of light
Infrared light
Light dot
0 mm²
AWG-number
22
Material of cable sheath
Polyvinyl chloride (PVC)
With restart blockage
No
Suitable for safety functions
No
Degree of protection (IP)
IP67
Degree of protection (NEMA)
6
Ambient temperature
40 - 70 °C
Rated control supply voltage Us at AC 50HZ
0 - 0 V
Rated control supply voltage Us at AC 60HZ
0 - 0 V
Rated control supply voltage Us at DC
10 - 30 V

Approvals

Product Standards
UL 508; CSA-C22.2 No. 14; IEC60947-5-2; CE marking
UL File No.
E117028
UL Category Control No.
NRKH, NRKH7
CSA File No.
50513
CSA Class No.

3211-07
North America Certification
UL listed, CSA certified
Max. Voltage Rating
30 V DC
Degree of Protection
IEC: IP68, IP69K; UL/CSA Type: 1, 4, 6

Dimensions



Sensor with installed adapter

- Light/dark
- Gain

CAD data

- [Product-specific CAD data](#)
(Web)
- [3D Preview](#)
(Web)

DWG files

- [DA-CD-90_28267_104](#)
File
(Web)

Step files

- [DA-CS-90_28267_104](#)
File
(Web)

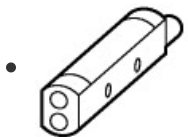
Product photo



[1360PIC-268](#)

Photo
Sensors

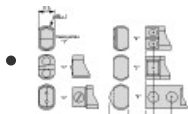
3D drawing



[1360DRV-35](#)

Line drawing

Dimensions single product



[1360DIM-188](#)

Line drawing



[1360DIM-189](#)

Line drawing

- Light/dark
- Gain

- [1360DIM-351](#)

Line drawing

Instruction Leaflet

- [Optical sensors: Comet Series \(IL05305002Z\)](#)
Asset
(PDF, multilingual)

Declaration of Conformity

EU

- [Photoelectric Sensors - Comet Series Sensors \(DC\): ThruBeam, Diffuse, Perfect Prox, RAPP, Reflex \(DA-DC-00002430\)](#)
Asset
(PDF)

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