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Worldwide English



E65-SMPP100-HDD - Diffuse reflective sensor, Sn=100mm, 4L, 10-30VDC, dark, NPN, PNP, quad 40, insulated material, M12



135711 E65-SMPP100-HDD

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



135711 E65-SMPP100-HDD

Diffuse reflective sensor, Sn=100mm, 4L, 10-30VDC, dark, NPN, PNP, quad 40, insulated material, M12

Alternate Catalog No.

E65-SMPP100-HDD

EL-Nummer (Norway)

4315352

E65-SMseries, product features: bright indicators for voltage, output and TargetLock™, targetLock™ simplifies setup and ensures a high operational reliability. Perfect Prox® models detect targets with different colors at the same range while ignoring background objects. DC models have access to

• [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

E65 SMSeries

For connection of:

Plug-in connection M12 x 1

Design (outer dimensions)

33 x 41 x 37 mm

Rated operational voltage [U_a]

10 - 30 V DC

Rated switching distance [S_n]

100 mm

Description

with background suppression (Perfect Prox)

Connection

4-wire

Function

Reflected-light beam

Material

Insulated material

Switching type

NPN

PNP

Switching principle

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. E166051

UL Category Control No. NRKH, NRKH7

CSA File No. UL report applies to both Canada and US

CSA Class No. –

North America Certification UL listed, certified by UL for use in Canada

Max. Voltage Rating 30 V DC

Degree of Protection IEC: IP68, IP69K; UL/CSA Type: 1, 3, 4, 4x, 6, 6P, 12, 13

Technical data

General

Standards

IEC/EN 60947-5-2

Ambient temperature

-25 - +55

Operation [9]

-25 - +55 °C

Storage [9]

-25 - +70 °C

Mechanical shock resistance

50

Shock duration 10 ms g

Degree of Protection

IP68, IP69

Characteristics

Rated switching distance Rated switching distance [S_n]

100 mm

Range

0.1 mm

Rated operational voltage [U_o]

10 - 30 V DC

Maximum load current [I_o]

< 100 mA

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

20 mA

Response time

1 ms

Switching state display

Red LED

Operating voltage display

Green LED

Boundary gain

Yellow

Protective functions

Short-circuit protective device

Protection against polarity reversal

Protection against wire breakage

Connection

4-wire

Style Design (outer dimensions)

33 x 41 x 37 mm

For connection of:

Plug-in connection M12 x 1

Material

Insulated material

Design verification as per IEC/EN 61439

Operating ambient temperature min.

-25 °C

Operating ambient temperature max.

+55 °C

Sensors (EG000026) / Light scanner with background masking (EC002719)
 Electric engineering, automation, process control engineering / Binary sensor technology, safety-related sensor technology / Optoelectronic sensor / Light scanner w. background masking (ecl@ss10.0.1-27-27-09-04 [AKP253013])
 Adjustment range
 0 - 100 mm
 Operating distance
 0 - 0 mm
 Triangulation
 Background fade-out
 Pre failure notice
 No
 With time function
 No
 Rated switching distance
 100 mm
 Max. switching distance
 100 mm
 Max. output current
 100 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
 Other
 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
 1
 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
 Other
 Operation agent-safety class
 Safety class 2
 Explosion safety category for gas
 None
 Explosion safety category for dust
 None
 Construction type housing
 Cuboid
 Width sensor
 33 mm
 Diameter sensor
 0 mm
 Height of sensor
 55 mm
 Length of sensor
 41 mm
 Sensing mode
 Dark switching
 Material of optical surface
 Plastic
 Material housing
 Plastic
 Max. output current at protected output
 100 mA
 Mn. reflector distance
 0 mm
 Ambient temperature
 -25 - 55 °C
 Time of reaction
 2 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""
 30 V
 Rated control supply voltage U_s at AC 50HZ
 0 - 0 V
 Rated control supply voltage U_s at AC 60HZ
 0 - 0 V
 Rated control supply voltage U_s at DC
 10 - 30 V
 Voltage type
 DC
 With monitoring function downstream switching devices
 No
 Laser protection class
 None
 Wavelength of the sensor
 660 nm
 Type of light
 Other
 Light dot
 0 mm²
 AWG-number
 0
 Material of cable sheath
 Other
 With restart blockage
 No
 Suitable for safety functions
 No
 Degree of protection (IP)
 IP67

Approvals

Product Standards

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

UL File No.

E166051

UL Category Control No.

NRKH, NRKH7

CSA File No.

UL report applies to both Canada and US

CSA Class No.

—

North America Certification

UL listed, certified by UL for use in Canada

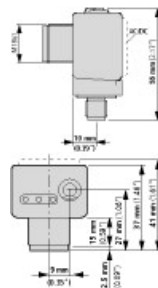
Max. Voltage Rating

30 V DC

Degree of Protection

IEC: IP68, IP69K; UL/CSA Type: 1, 3, 4, 4x, 6, 6P, 12, 13

Dimensions



CAD data

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

DWG files

- [DA-CD-90_28290_004](#)
File
(Web)

Step files

- [DA-CS-90_28290_004](#)
File
(Web)

Product photo



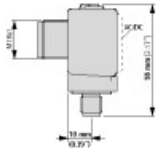
1360PIC-94
Photo

3D drawing

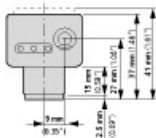


Dimensions single product

- 1360DIM-154
Line drawing



- 1360DIM-319
Line drawing



- 1360DIM-320
Line drawing

Instruction Leaflet

- Optical sensors: SM Series (IL05305004Z)
Asset
(PDF, multilingual)

Declaration of Conformity

EU

- Photoelectric Sensors, DC - E65 SM Series (DA-DC-00002426)
Asset
(PDF)

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