



135733

E65-SMTD15-HLD

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## DELIVERY PROGRAM

Basic function  
Optical sensors

Product range  
E65 SM Series

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 [ $S_n$ ]  
15000 mm

Description  
Source (for combination with detector)

Connection  
4-wire

Function  
Thru-beam photoelectric sensor

Material  
Insulated material

Switching type  
NPN

PNP

Switching principle  
Light switching

#### Notes

for combination with transmitter

#### 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. NRK1, NRK1-7

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 [ $S_n$ ]  
15000 mm

Range  
15 mm

Rated operational voltage [ $U_b$ ]  
10 - 30 V DC

Maximum load current [ $I_b$ ]  
< 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

## TECHNICAL DATA ETIM 7.0

Sensors (EG000026) / One-way light barrier (EC002716)

Scope of delivery of the one-way system  
Receiver

Opening angle  
0°

Pre failure notice  
No

With time function  
No

Rated switching distance  
15000 mm

Max. switching distance  
15000 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  
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  
Other

Operation agent-safety class  
Safety class 2

Explosion safety category for gas  
None

Explosion safety category for dust  
None

Construction type housing  
Ouboid

Width sensor  
33 mm

Diameter sensor  
0 mm

Height of sensor  
55 mm

Length of sensor  
41 mm

Sensing mode  
Light switching

Material of optical surface  
Plastic

Material housing  
Plastic

Max. output current at protected output  
0 mA

Mn. reflector distance  
0 mm

Ambient temperature  
25 - 55 °C

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""  
30 V

Rated control supply voltage  $U_s$  at AC 50 Hz  
6 / 9

0 - 0 V

Rated control supply voltage  $U_s$  at AC 60 Hz  
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  
Polarity free red light

Light dot  
0 mm<sup>2</sup>

AWG-number  
0

Material of cable sheath  
Other

With restart blockage  
No

Suitable for safety functions  
No

Degree of protection (IP)  
IP67

Degree of protection (NEMA)  
4X

## APPROVALS

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

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E166051

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NRK1, NRK17

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CSA Class No.  
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30 V DC

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DIMENSIONS



