



Thru-beam photoelectric sensor, transmitter, Sn=250m, 4L, 10-30VDC, NPN, PNP, M30, metal, M12



Powering Business Worldwide™

**Part no.** E58-30TS250-HAP  
**Catalog No.** 135697  
**Alternate Catalog No.** E58-30TS250-HAP  
**EL-Nummer (Norway)** 0004315351

## Delivery program

|                           |       |    |  |
|---------------------------|-------|----|--|
| Basic function            |       |    | Optical sensors                        |
| Product range             |       |    | E58 Harsh Duty Series                  |
| For connection of:        |       |    | Plug-in connection M12 x 1             |
| Design (outer dimensions) |       | mm | M30 x 1.5                              |
| Rated operational voltage | $U_e$ |    | 10 - 30 V DC                           |
| Rated switching distance  | $S_n$ | mm | 250000                                 |
| Description               |       |    | Source (for combination with detector) |
| Connection                |       |    | 4-wire                                 |
| Function                  |       |    | Thru-beam photoelectric sensor         |
| Type of light             |       |    | Visible red                            |
| Material                  |       |    | Stainless steel                        |
| Switching type            |       |    | NPN<br>PNP                             |

### 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, 2, 3, 3R, 3S, 4, 4x, 6, 6P, 12, 12K, 13

## Technical data

### General

|                             |  |   |                            |
|-----------------------------|--|---|----------------------------|
| Standards                   |  |   | IEC/EN 60947-5-2           |
| Ambient temperature         |  |   | -40 - +55                  |
| Mechanical shock resistance |  | g | 100<br>Shock duration 3 ms |
| Degree of Protection        |  |   | IP69                       |

### Characteristics

|                           |       |     |   |
|---------------------------|-------|-----|---|
| Rated switching distance  |       |     |   |
| Rated switching distance  | $S_n$ | mm  | 250000  |
| Range                     |       | mm  | 250   |
| Rated operational voltage | $U_e$ |     | 10 - 30 V DC  |
| Maximum load current      | $I_e$ | mA  | < 100   |
| Response time             |       | ms  | 1.6   |
| Operating voltage display |       | LED | red   |
| Protective functions      |       |     | Short-circuit protective device<br>Protection against polarity reversal<br>Protection against wire breakage |
| Connection                |       |     | 4-wire  |
| Style                     |       |     |   |
| Design (outer dimensions) |       | mm  | M30 x 1.5   |
| For connection of:        |       |     | Plug-in connection M12 x 1  |
| Material                  |       |     | Stainless steel   |

## Design verification as per IEC/EN 61439

|  |  |    |     |
|--|--|----|-----|
| Technical data for design verification |  |    |     |
| Operating ambient temperature min.     |  | °C | -40 |
| Operating ambient temperature max.     |  | °C | 55  |

## Technical data ETIM 7.0

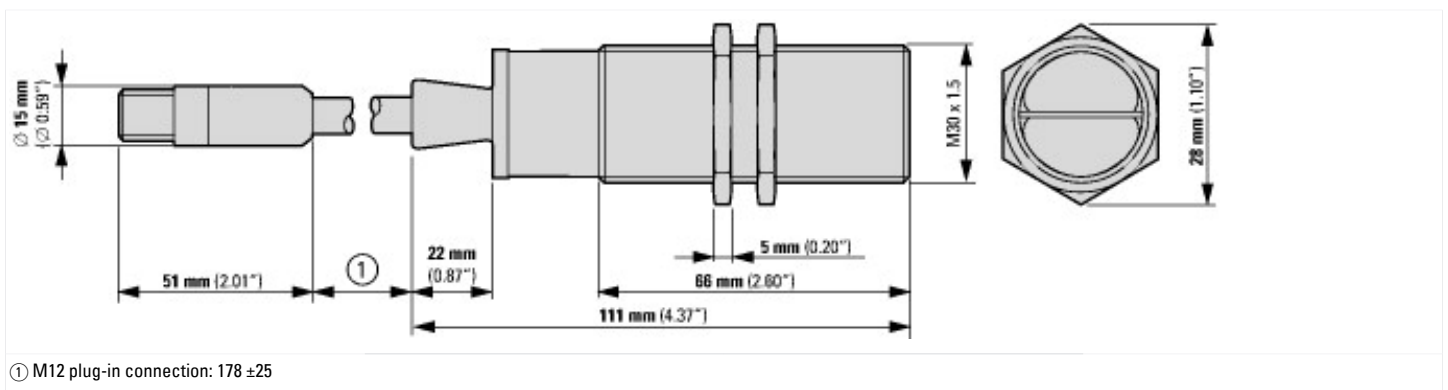
|   |  |    |                        |
|---|--|----|------------------------|
| Sensors (EG000026) / One-way light barrier (EC002716)   |  |    |                        |
| Electric engineering, automation, process control engineering / Binary sensor technology, safety-related sensor technology / Optoelectronic sensor / One-way light barrier (ecl@ss10.0.1-27-27-09-01 [AKP250013]) |  |    |                        |
| Scope of delivery of the one-way system   |  |    | Transmitter            |
| Opening angle   |  | °  | 0                      |
| Pre failure notice  |  |    | No                     |
| With time function  |  |    | No                     |
| Rated switching distance  |  | mm | 250000                 |
| Max. switching distance   |  | mm | 0                      |
| Max. output current   |  | mA | 100                    |
| 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  |  |    | 0                      |
| 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   |  |    | Cylinder, screw-thread |
| Width sensor  |  | mm | 0                      |
| Diameter sensor   |  | mm | 30                     |
| Height of sensor  |  | mm | 0                      |
| Length of sensor  |  | mm | 111                    |
| Sensing mode  |  |    | Light-/dark switching  |
| Material of optical surface   |  |    | Glass                  |
| Material housing  |  |    | Metal                  |
| Max. output current at protected output   |  | mA | 0                      |
| Min. reflector distance   |  | mm | 0                      |

|   |                 |         |
|---|-----------------|---------|
| Ambient temperature                                   | °C              | 40 - 55 |
| Time of reaction                                      | ms              | 0       |
| Transmission range of the safety field                | m               | 0       |
| Switching frequency                                   | Hz              | 312     |
| Type of safety acc. IEC 61496-1                       |                 |         |
| "Switching voltage of OSSD at state ""high""          | V               | 30      |
| Rated control supply voltage Us at AC 50HZ            | V               | 0 - 0   |
| Rated control supply voltage Us at AC 60HZ            | V               | 0 - 0   |
| Rated control supply voltage Us at DC                 | V               | 10 - 30 |
| Voltage type  |                 | DC      |
| With monitoring function downstream switching devices |                 | No      |
| Laser protection class                                |                 | None    |
| Wavelength of the sensor                              | nm              | 0       |
| Type of light   |                 | Other   |
| Light dot   | mm <sup>2</sup> | 0       |
| 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                        |
| 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, 2, 3, 3R, 3S, 4, 4x, 6, 6P, 12, 12K, 13 |

## Dimensions



## Assets (links)

### Declaration of CE Conformity

00002425

### Instruction Leaflets

IL05305003Z2018\_05

## Additional product information (links)

### IL05305003Z E58 Series Harsh Environment Optical Sensors

IL05305003Z E58 Series Harsh Environment Optical Sensors [ftp://ftp.moeller.net/DOCUMENTATION/AWA\\_INSTRUCTIONS/IL05305003Z2018\\_05.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05305003Z2018_05.pdf)