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Powering Business Worldwide

E58-18DP100-HDP - Diffuse reflective sensor, Sn=100mm, 4L, 10-30VDC, dark, NPN, PNP, M18, metal, M12



135665 E58-18DP100-HDP

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


## 135665 E58-18DP100-HDP

Diffuse reflective sensor, Sn=100mm, 4L, 10-30VDC, dark, NPN, PNP, M18, metal, M12

Alternate Catalog No.

E58-18DP100-HDP

EL-Nummer (Norway)

0004315341

E58 series, product features: sensors with a diameter of 18 mm or 30 mm Highly refined optics for long sensing ranges and to see through high levels of contamination – unmatched optical performance. Perfect Prox® technology provides exceptional background rejection and extremely high excess gain. Resistant to many chemicals used in the automotive, food processing and forest products industries. Suitable for high temperature, high pressure washdown (82 bar). mechanical Viton gaskets are resistant to extreme temperature variations. Visible sensing beam on all models lets you see where the beam is aimed for quick flush mounting and alignment. The function display is the brightest available and is visible from any angle and in any lighting condition

- 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

E58 Harsh Duty Series

For connection of:

Plug-in connection M12 x 1

Design (outer dimensions)

M18 x 1 mm

Rated operational voltage [ $U_o$ ]

10 - 30 V DC

Rated switching distance [ $S_n$ ]

100 mm

Description

with background suppression (Perfect Prox)

Connection

4-wire

Function

Reflected-light beam

Type of light

Visible red

Material

Stainless steel

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, 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  
100  
Shock duration 3 ms g  
Degree of Protection  
IP69  
Characteristics  
Rated switching distanceRated switching distance [ $S_1$ ]  
100 mm  
Range  
0.1 mm  
Rated operational voltage [ $U_0$ ]  
10 - 30 V DC  
Maximum load current [ $I_0$ ]  
< PNP: 100  
NPN: 250 mA  
Response time  
1 ms  
Switching state display  
Red LED  
Protective functions  
Short-circuit protective device  
Protection against polarity reversal  
Protection against wire breakage  
Connection  
4-wire  
StyleDesign (outer dimensions)  
M18 x 1 mm  
For connection of:  
Plug-in connection M12 x 1  
Material  
Stainless steel

### Design verification as per IEC/EN 61439

Operating ambient temperature min.  
-40 °C  
Operating ambient temperature max.  
+55 °C

### Technical data ETIM 7.0

Sensors (EG000026) / Light scanner with background masking (EO002719)  
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  
127 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  
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  
Cylinder, screw-thread  
Width sensor  
0 mm  
Diameter sensor  
18 mm  
Height of sensor  
0 mm  
Length of sensor  
80 mm  
Sensing mode  
Dark switching  
Material of optical surface  
Glass  
Material housing  
Metal  
Max. output current at protected output  
0 mA  
Min. reflector distance  
0 mm  
Ambient temperature  
-40 - 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 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  
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 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

## 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



## Product photo



**Photo**  
Product photo  
Photo

## 3D drawing



**1360DRW-25**  
3D drawing  
Line drawing

## Dimensions single product



## Instruction Leaflet

- Optical sensors: E58 Series (IL05305003Z)  
Instruction Leaflet  
(PDF, International)

## Declaration of Conformity

- DA-DC-00002425**  
Declaration of Conformity  
(PDF)

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