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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

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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

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

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• [Design verification as per IEC/EN 61439](#)

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• [Dimensions](#)

-40 - +55
 Mechanical shock resistance
 100
 Shock duration 3 ms g
 Degree of Protection
 IP69
 Characteristics
 Rated switching distance Rated switching distance [S_n]
 100 mm
 Range
 0.1 mm
 Rated operational voltage [U_e]
 10 - 30 V DC
 Maximum load current [I_e]
 < 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
 Style Design (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 (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
 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 U_s at AC 50-HZ
 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
 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.
NRK4, NRK4-7
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, 2, 3, 3R, 3S, 4, 4x, 6, 6P, 12, 12K, 13

Dimensions



□ M12 plug-in connection: 178 ±25

Product photo



[Photo](#)

Product photo

Photo

3D drawing



[1360DRW-25](#)

3D drawing

Line drawing

Dimensions single product



[1360DIM-314](#)

Dimensions single product

Line drawing

□ M12 plug-in connection: 178 ±25, Connection cable: 2m

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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