



Mid range distance sensors DS40

DS40-P41211



Model Name > [DS40-P41211](#)
Part No. > [1029821](#)



At a glance

- Safe background suppression of any object in the back (up to 100 m)
- Detection of highly dynamic targets: black to extremely shiny
- Measuring range up to 5 m
- Precise alignment by red laser light
- Easy and fast teach-in via teach button
- One switching output for standard applications

Your benefits

- Fast and reliable detection of objects due to its solid performance
- Cost-efficient design ensures low investment costs
- Red laser light ensures fast, precise alignment, reducing commissioning costs
- Easy one-button teach-in ensures fast and easy commissioning
- Full mechanical compatibility to Dx60 product family offers increased flexibility for future upgrades



CE  CDRH

Performance

Measuring range	¹⁾ , ²⁾ , ³⁾ 80 mm ... 2,000 mm, 6 % remission 80 mm ... 4,000 mm, 18 % remission 80 mm ... 5,000 mm, 90 % remission
Response time:	10 ms
Switching frequency:	50 Hz
Light source:	Laser, red
Laser protection class:	2 (EN 60825-1)
Typ. light spot size (distance):	9 mm x 9 mm (at 4.5 m)
Additional function:	Inverted switching output
Service life:	50,000 h

¹⁾ ²⁾ ³⁾ Teach-in from 200 ... 5,000 mm

Interfaces

Output type:: 1 x PNP (100 mA) ¹⁾ ²⁾

¹⁾ Output Q short-circuit protected ²⁾ PNP: HIGH = $V_S - (< 2.5 \text{ V})$ / LOW = 0 V

Mechanics/electronics

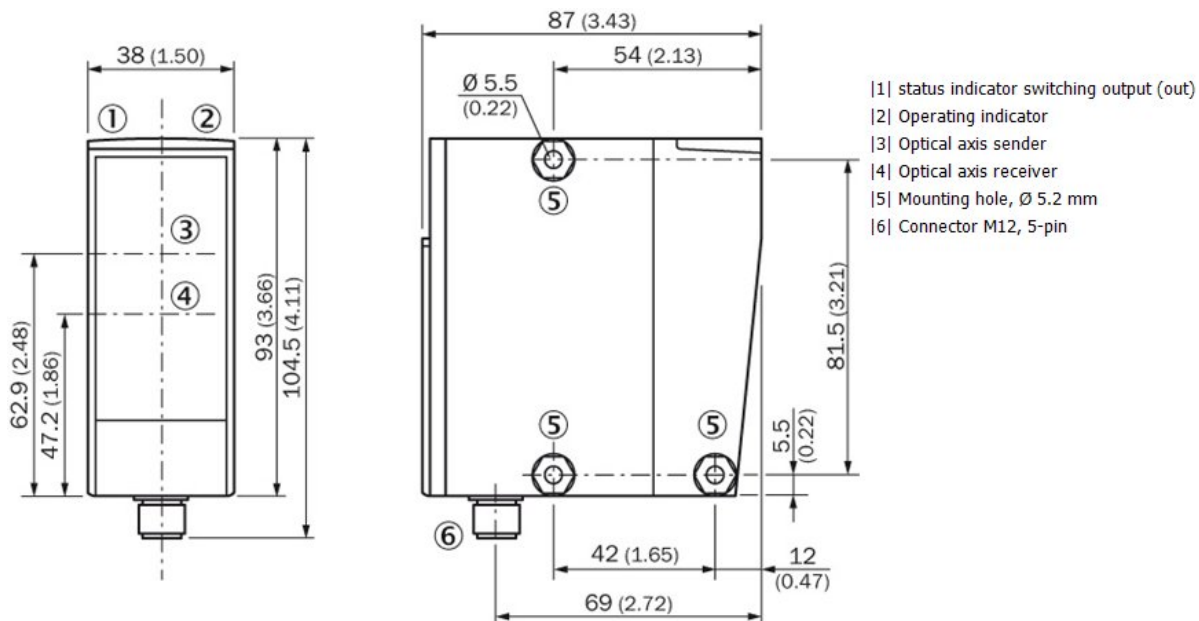
Supply voltage V_s ¹⁾ :	DC 11 V ... 30 V
Ripple ²⁾ :	≤ 5 Vpp
Power consumption ³⁾ :	< 3 W
Connection type:	Connector M12, 5-pin
Weight:	202 g

¹⁾ Limit values, reverse-polarity protected, operation in short-circuit protected network, max. 8 A ²⁾ May not fall short of or exceed V_s tolerances ³⁾ Without load

Ambient data

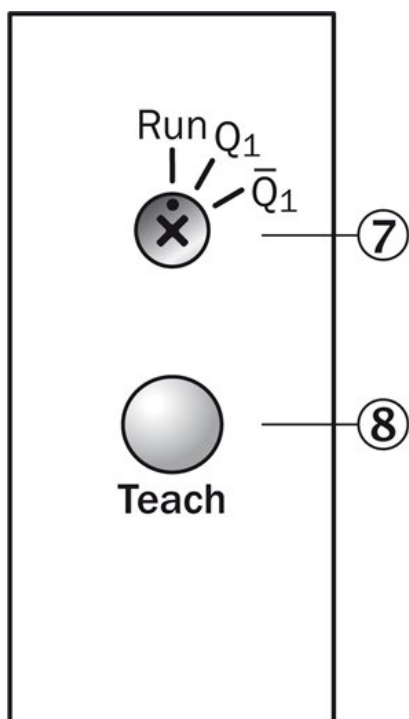
Enclosure rating:	IP 67
Protection class:	III
EMC:	EN 61000-6-2 EN 60947-5-2
Ambient temperature:	Operation: -25 ... 50 °C, Storage: -25 ... 75 °C

Dimensional drawing



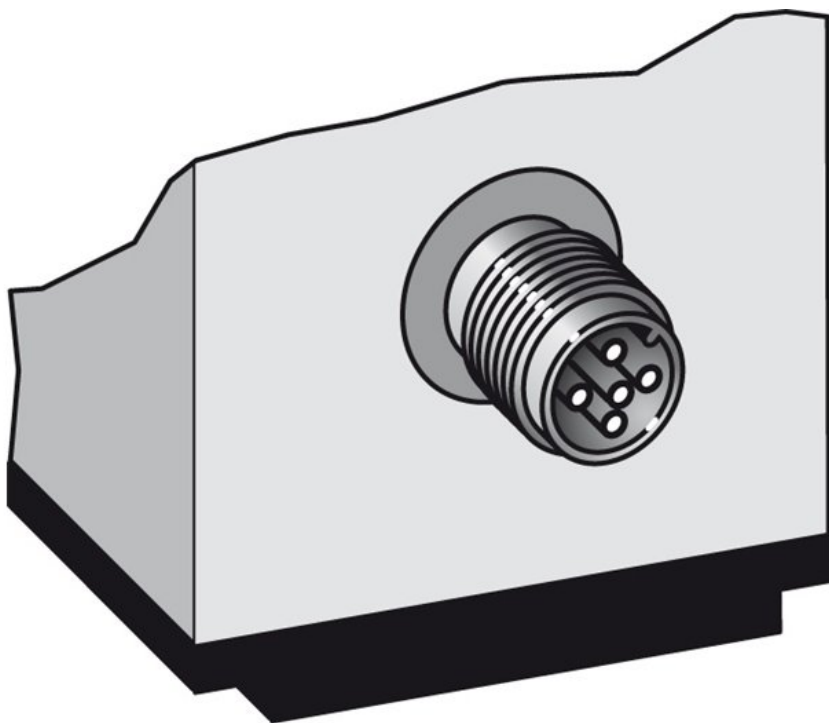
All dimensions in mm (inch)

Adjustment possible



- |7| rotary switch
- |8| Control element

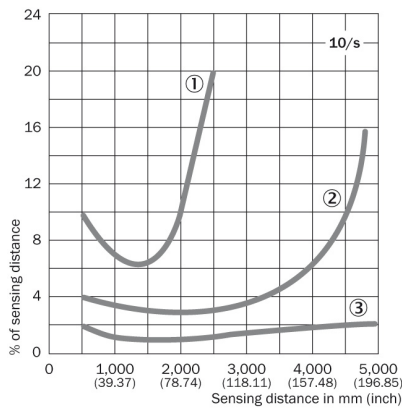
Connection type



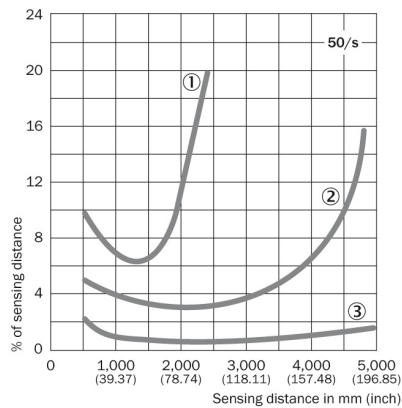
Connection diagram



Characteristic curve: sensing distance 10/s



Characteristic curve: sensing distance 50/s



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