

## Distance Sensor DS40

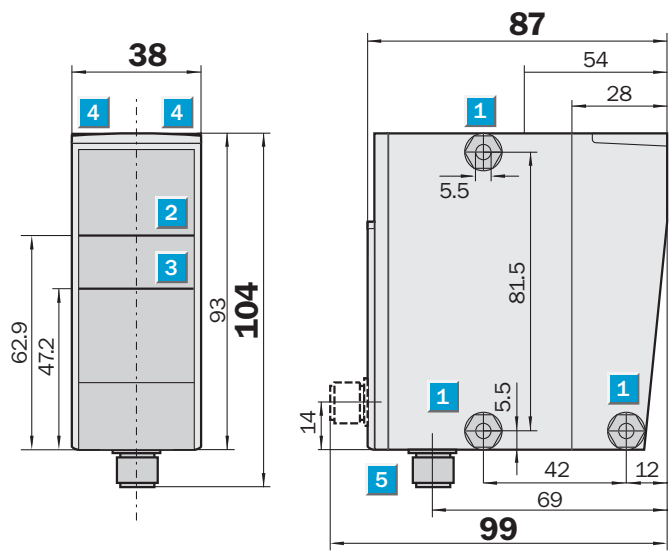


**Scanning Distance**  
 200 ... 5000 mm  
 Distance Sensor

- Background suppression up to 100 m (also shiny objects)
- High target dynamic:  
black ... extremely shiny
- Precise alignment by  
red laser light
- Teach-in
- 1 Switching output for  
basic application demands



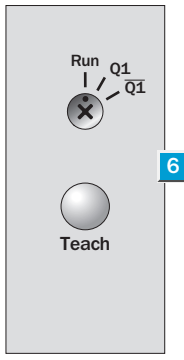
### Dimensional drawing



#### Adjustments possible

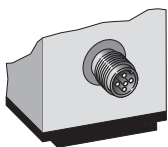
- DS40-P/-N21211
- DS40-P/-N41211

- 1 Mounting hole  $\varnothing$  5,2 mm
- 2 Optical axis – sender
- 3 Optical axis – receiver
- 4 Status indicator
- 5 M12 plug, 5-pin
- 6 Control panel

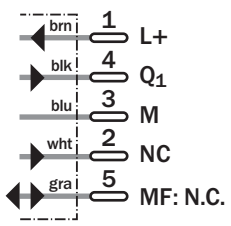


### Connecting types

- DS40-P/-N21211
- DS40-P/-N41211



#### 5-pin, M12



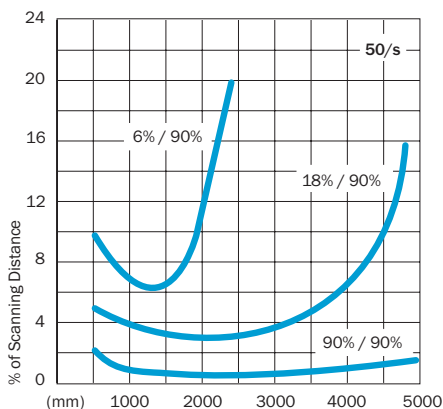
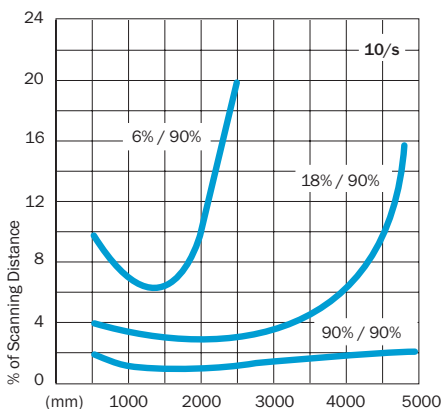
Technical data		DS40									
		-P 21211	-N 21211	-P 41211	-N 41211						
Type of connection	M12 plug, 5-pin										
Scanning distance, adjustable	200 mm ... 5000 mm										
Object with 6% remission	80 mm ... 2000 mm										
Object with 18% remission	80 mm ... 4000 mm										
Object with 90% remission <sup>1)</sup>	80 mm ... 5000 mm										
Light source <sup>2)</sup>	Laser diode, red										
Light spot at 4.5 m distance	Ø 9 mm										
Supply voltage V <sub>s</sub> <sup>3)</sup>	11 to 30 V DC										
Power consumption <sup>4)</sup>	< 3 W										
Residual ripple <sup>5)</sup>	≤ 5 V <sub>pp</sub>										
Switching output (invertable)	Q <sub>1</sub>										
DS40-P: PNP	HIGH = V <sub>s</sub> - (< 2 V)/LOW = 0 V										
DS40-N: NPN	HIGH = V <sub>s</sub> /LOW ≤ 2 V										
Output current <sup>6)</sup>	100 mA										
Switching frequency	50/s										
	10/s										
Switching limit Q <sub>1</sub>	Adjustable (Teach-in)										
Time delay	On request										
Multifunction MF	N.C./External Teach on request										
VDE protection class <sup>7)</sup>	II										
Laser protection class	2 (EN 60 825-1)										
Enclosure rating	IP 67										
Ambient temperature <sup>8)</sup>	Operation -25 ... +50 °C										
	Storage -25 ... +75 °C										
Weight	202 g										

<sup>1)</sup> Also shiny  
<sup>2)</sup> Average service life 50 000 h, at room temperature = +25 °C  
<sup>3)</sup> Limit values, reverse polarity protected

<sup>4)</sup> Without load  
<sup>5)</sup> Must be within V<sub>s</sub> tolerances  
<sup>6)</sup> Outputs Q<sub>1</sub> short-circuit protected

<sup>7)</sup> Withstand voltage 50 V DC  
<sup>8)</sup> Do not disband cable below 0 °C

Scanning distance



Order information

Type	Order no.
DS40-P21211	1029819
DS40-N21211	1029820
DS40-P41211	1029821
DS40-N41211	1029822

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