

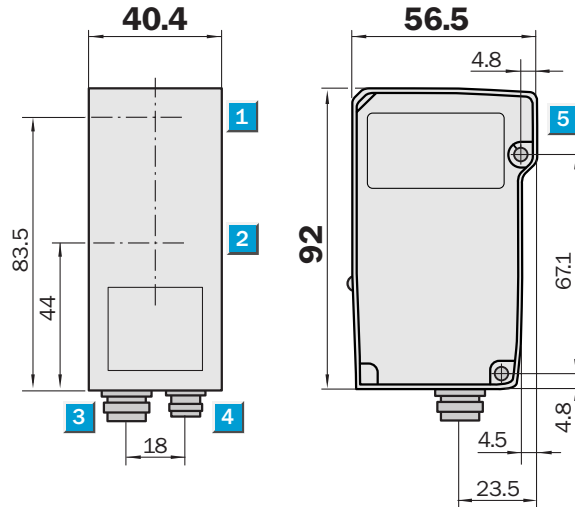
Profiler™ Displacement Sensor



	Scanning distance 100 ± 25 mm
Displacement Sensor	

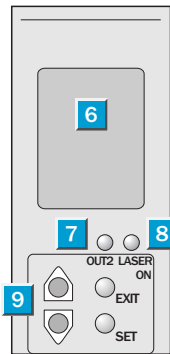
- Edge and profile detection with one sensor independent from distance and moving object
- Stand-alone device
- Integrated display
 - Direct process feedback
 - Easy and fast set up
- Highly sophisticated features
 - 3 switching outputs and analogue output
 - 30 mm parallel laser line
 - Teach-in and different measurement functions integrated

Dimensional drawing



Adjustments possible

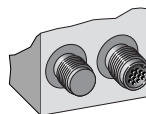
All types



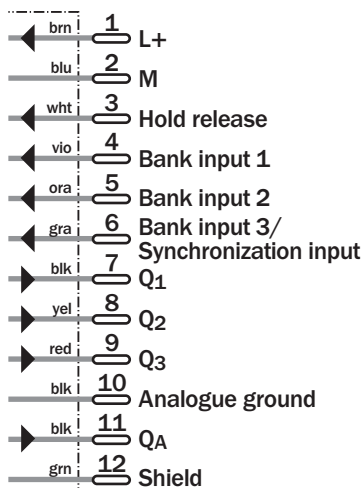
- 1 Optical axis, sender
- 2 Optical axis, receiver
- 3 Main connector 12-pin
- 4 Monitor unit connector 6-pin (see accessories)
- 5 Mounting hole, ø 4.2 mm
- 6 LCD display
- 7 Switching output indicator (orange)
- 8 "Laser on" LED (green)
- 9 Set up buttons

Connection type

All types



Connection via extension cable 12-pin



Technical data		PRO100-	25L1P	25L1N								
Scanning distance		100 ± 25 mm										
Light source, light spot size		Laser diode ¹⁾ , red light, 0,3 x 32 mm										
Laser class		2M (EN 60325:1998)										
Wave length		650 nm										
Supply voltage V_s ²⁾		12 ... 24 V DC										
Current consumption max. ³⁾		120 mA/24 V; 180 mA/12 V										
Linearity ⁴⁾		± 0,5 % FS (Z direction)										
Resolution ⁵⁾		50 µm (Z direction)										
Response time		≤ 33 ms										
Control output ⁶⁾		PNP open collector										
		NPN open collector										
Analogue output ⁷⁾		4 ... 20 mA										
Load dependence		± 0,05 %										
Temperature drift		± 0,05 % FS/°C										
Warm-up max.		5 min										
Indicator	Output	LED orange										
	Laser emitting	LED green										
Ambient light	Sunlight	10,000 lx										
	HF lamp	3,000 lx										
Ambient temperature T_A	Operation	-10 ... +40 °C ⁸⁾										
	Storage	-20 ... +60 °C										
Humidity	Operation	+35 ... +85 %/RH										
	Storage	+35 ... +95 %/RH										
Banks		8 (switchable)										
Shock resistance		10/s ... 55/s										
Vibration resistance		50 G (500 m/s ²)										
VDE protection class		III										
Enclosure rating		IP 66										
Material	Housing	Zinc die-casting/PC										
	Window	Glass										
Weight ⁹⁾		Approx. 250 g										

¹⁾ Max. output 1 mW
²⁾ -5 %, +10 %
³⁾ Incl. analogue output current

⁴⁾ Measuring object: white ceramic, IMG GAIN: 0
⁵⁾ Measuring object: white ceramic at the centre measurement distance, IMG GAIN: 0

⁶⁾ 30 V/100 mA max. (remain voltage: max. 1.8 V) 3 outputs
⁷⁾ Out max. scanning distance: 24 mA (Load impedance: max. 300 Ω). Below min. scanning distance: 2 mA

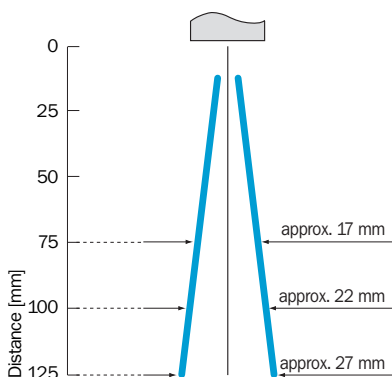
⁸⁾ No condensation
⁹⁾ Excluding attached cable

Resolution (measuring object white ceramic)	
Horizontal	80 µm at 1 x arg., no sub-sampling
Vertical	50 µm at 1 x arg., no sub-sampling

Accuracy (measuring object white ceramic)	
Horizontal	± 1,5 % (of 22 mm at 100 mm distance)
Vertical	± 1 % (of 50 mm at 100 mm distance)

Order information			
Profiler™		Accessories	
Type	Order no.	Type	Order no.
PRO100-25L1P	6 029 087	PROM-1, external monitor	6 029 185
PRO100-25L1N	6 029 086	DOL-SH12-G02M, cable with female connector 12-pin, 2 m	6 029 083
		DOL-SH12-G05M, cable with female connector 12-pin, 5 m	6 029 084

Field of view



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