



Short range distance sensors (displacement) DT20

DT20-P130B1050



Model Name > [DT20-P130B1050](#)
Part No. > [1027831](#)



At a glance

- Different measuring ranges from 90 mm ... 1,000 mm
- Repeatability up to ± 1.5 mm
- Infrared sender, which is not visible to the human eye
- Analog and switching output provide distance and out of range information
- Plug and play sensor that is factory-programmed based on customer specifications
- High output rate - distance outputs are provided every millisecond
- Rugged, metal housing

Your benefits

- Fast, easy commissioning based on customer-specific presets saves time
- Tamper-proof sensor concept ensures high machine availability
- Inconspicuous and therefore non distracting by use of infrared light
- High ambient light immunity increases machine availability
- Solid, IP 67-rated metal housing permits operation in harsh environments, making the sensor suitable for a wide range of applications



Performance

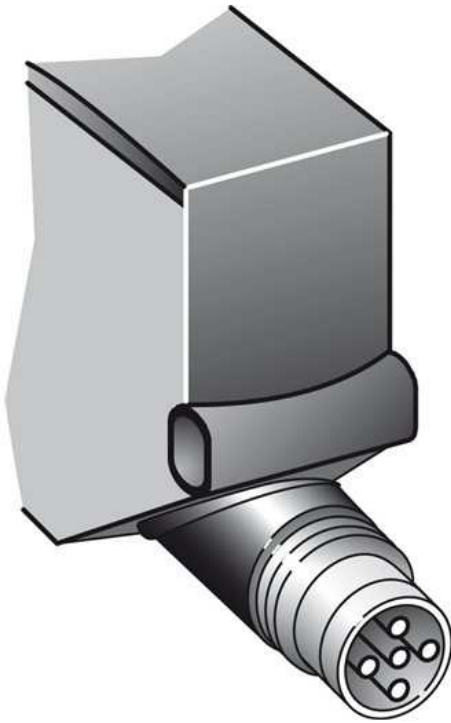
Measurement range:	100 mm ... 500 mm, 18 % ... 90 % remission ¹⁾
Resolution ²⁾ :	1 mm/2 mm
Repeatability ³⁾ :	± 1.5 mm/ ± 3 mm
Response time ⁴⁾ :	10 ms/15 ms
Light source:	LED, infrared
Typ. light spot size (distance):	15 mm x 15 mm (at 1 m)
Additional function:	Customer specific scaled measuring range, Plug & Play, Switching output to monitor the measuring range
Accuracy::	± 4 mm ^{5) 6)}
Laser service life (MTTF at 25 °C):	100,000 h
Output time:	1 ms

¹⁾ On 6 % remission the maximal measurable distance is 820 mm ^{2) 4)} Depending on measurement range: 90 ... 600 mm/> 600 mm. ³⁾ 18 % ... 90 % remission ^{5) 6)} % ... 90 % remission ⁶⁾ ± 4 mm u to 600 mm; $\leq \pm 7$ mm for distances larger < 600 mm; refer to accuracy diagram

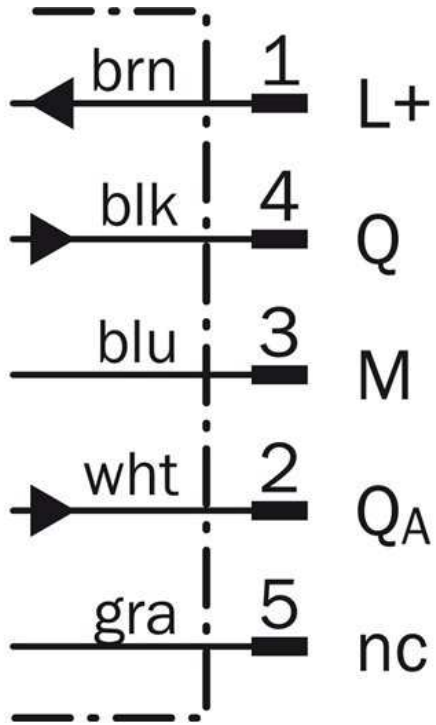
Interfaces

Output type ¹⁾ :	1 x PNP (100 mA)
Analog output:	1 x 4 mA ... 20 mA ($\leq 300 \Omega$)

Connection type



Connection diagram



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