

DT 10

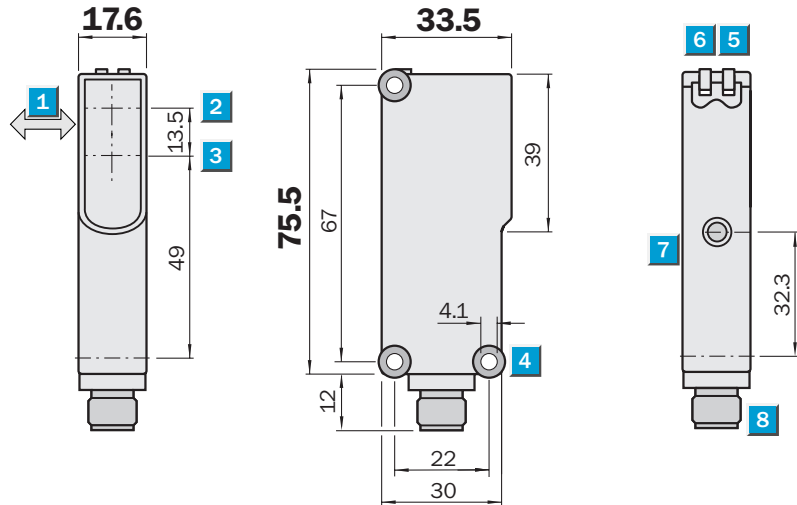
Distance Sensor



	Measurement range 50 ... 500 mm
Distance Sensor	

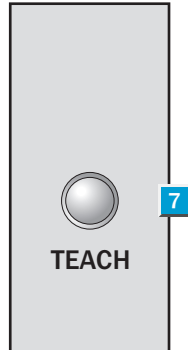
- Analogue output 4 ... 20 mA
- High measuring accuracy
- Visible red light
- Power-On LED
- Insensitive to external light sources (HF lamps)

Dimensional drawing



Adjustments possible

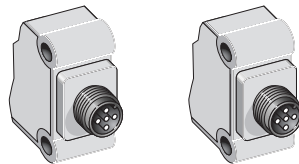
All types



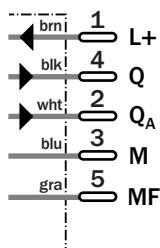
- 1 Standard direction of the material being detected
- 2 Optical axis, sender
- 3 Optical axis, receiver
- 4 Mounting hole \varnothing 4.1 mm
- 5 LED indicator, yellow; switching output status active
- 6 LED indicator, green; power on
- 7 Teach button
- 8 M12 plug, 5-pin

Connection type

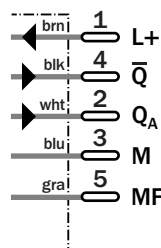
DT10-P10B5	DT10-P10D5
DT10-N10B5	DT10-N10D5



5-pin, M12



5-pin, M12



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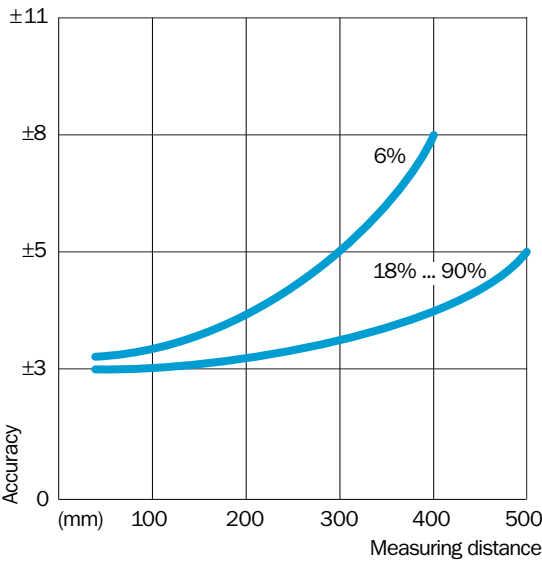
Technical data		DT10-	P10B5	P10D5	N10B5	N10D5						
Measuring range												
Object with 6% remission	50 mm ... 400 mm											
Object with 18% ... 90 % remission	50 mm ... 500 mm											
Light source ¹⁾	LED, red light											
Light spot diameter	20 mm at 400 mm											
Supply voltage V_S ²⁾	10 ... 30 V DC											
Current consumption ³⁾	< 1.2 W											
Residual ripple ⁴⁾	$\leq 5 V_{pp}$											
Analogue output ⁵⁾	4 ... 20 mA											
Accuracy ⁶⁾	$\pm 3 \dots 8 \text{ mm}$											
Reproducibility ⁷⁾	3 mm											
Resolution	< 1.5 mm											
Response time ⁸⁾	20 ms											
Output rate ⁹⁾	1 ms											
Temperature drift	1.0 mm/K											
Switching outputs	Q											
	\bar{Q}											
DT 10-P: PNP	HIGH = $V_S - (< 1 \text{ V})$ /LOW $\leq 1 \text{ V}$											
DT 10-N: NPN	HIGH = $V_S - (< 1 \text{ V})$ /LOW $\leq 1 \text{ V}$											
Multifunction MF	External Teach											
Output current I_A ¹⁰⁾	100 mA											
Connection type	M12 plug, 5-pin											
VDE protection class ¹¹⁾	<input type="checkbox"/>											
Enclosure rating	IP 67											
Ambient temperature T_A	Operation $-25 \dots +50 \text{ }^\circ\text{C}$ Storage $-40 \dots +75 \text{ }^\circ\text{C}$											
Warm-up time	30 min.											
Initialisation period	650 ms											
Weight	Approx. 40 g											

1) Average service life 100,000 h at $T_A = +25 \text{ }^\circ\text{C}$
 2) Limit values, reverse-polarity protected
 Operation in short-circuit protected network max. 8 A

3) Without load
 4) May not exceed or fall short of V_S tolerances
 5) $R_L < 200 \text{ } \Omega$, $V_p \geq 10 \text{ V}$
 $R_L < 500 \text{ } \Omega$, $V_p \geq 16 \text{ V}$

6) At room temperature
 7) Same ambient conditions
 8) Lateral introduction of object into the measurement range
 9) Object in measurement range

10) Output Q short-circuit protected
 11) Reference voltage 50 V DC



Order information	
Type	Order no.
DT10-P10B5	1 027 325
DT10-P10D5	1 027 326
DT10-N10B5	1 027 327
DT10-N10D5	1 027 328

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