

DT 200: Laser analog sensor that measures distances up to 2000 mm



The sturdy metal housing with M 12 connector makes it possible to use the equipment even in difficult environmental conditions.

Typical applications are:

- sag (loop) control,
- contour detection,
- diameter detection of coils, for example,
- difference measurements for determining the thickness of parts.



Distance sensors
Proximity mode


D DT 200 – Distance sensor for measurement distances up to 2 m.

The DT 200, which operates according to the principle of light run-time measurement, provides a resolution of 1 mm via a precise, analog power output.

The red measurement laser enables precise alignment to an object.

Small parts are detected precisely even at a distance of 2 m thanks to the small light spot, which is similar to that of a laser pointer.

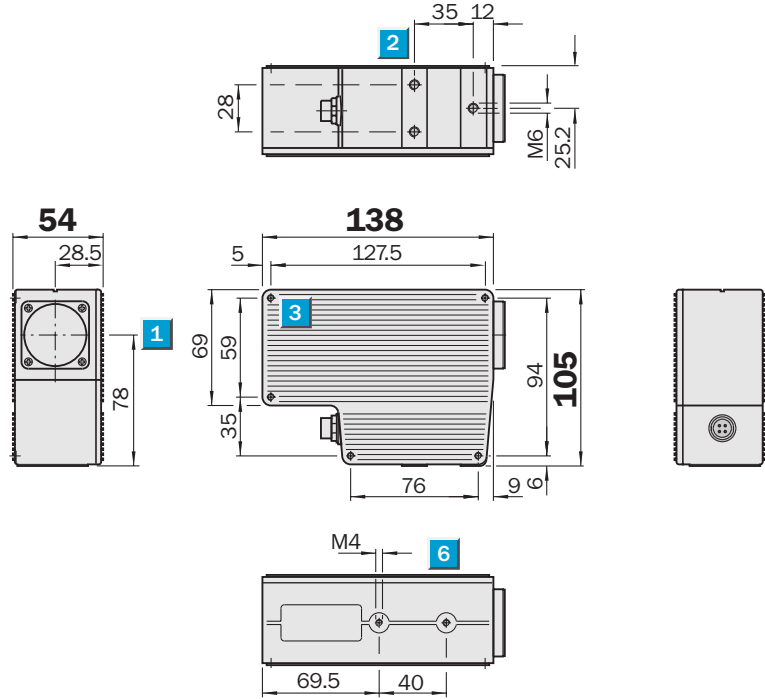
SICK

 **Measurement range**
100...2000 mm

Distance Sensor

- Good measurement accuracy thanks to of-flight measurement
- Analog output
- Easy adjustment using red laserlight
- Eye-save, laser class 2

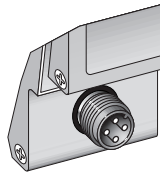
Dimensional drawing



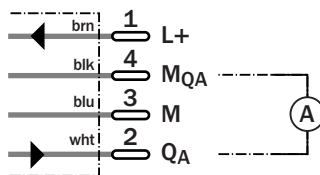
- 1 Centre of optical axis
- 2 M 6 threaded mounting hole, 10 mm deep
- 3 M 4 threaded mounting hole, 14 mm deep (this side only)
- 4 M 4 threaded mounting hole, 6 mm deep

Connection type

DT 200-111



4-pin, M 12



Laser class 2

Technical Data		DT 200-	111	111A01							
Measurement range¹⁾	100 ... 2000 mm										
Accuracy											
Object with 90 % remission	± 5 mm										
Object with 18 % remission	± 11 mm										
Object with 6 % remission	± 65 mm										
Reproducibility											
Object with 90 % remission	1 mm										
Object with 18 % remission	3 mm										
Object with 6 % remission	25 mm										
Light source²⁾, light type	Laser diode, red light										
Laser category	2 (IEC 825-1/EN 60825-1)										
	CDRH										
Supply voltage V_s	18 ... 30 V DC ³⁾										
Ripple ⁴⁾	< 5 V _{pp}										
Power consumption ⁵⁾	≤ 6 W										
Analog output	0 ... 20 mA (0.01 mA/mm)										
Response time	< 30 ms										
Temperature drift	0.4 mm/K										
Connection type	M 12 plug, 4-pin										
VDE protection class⁶⁾	<input type="checkbox"/>										
Enclosure rating	IP 67										
Ambient temperature T_A	Operation – 10 °C ... + 45 °C										
	Storage – 25 °C ... + 75 °C										
Weight	Approx. 980 g										

¹⁾ Falling below of the measurement range results in values < 0.1 mA
Exceeding the measurement range results in ambiguous values
(Example: Scanning distance of 3 m $\hat{=}$ 10 mA with sufficient reflectance)

²⁾ Average service life 50,000 h at T_A = + 25 °C
³⁾ Limit values, reverse-polarity protected

⁴⁾ May not exceed or fall short of V_s tolerances
⁵⁾ Without load
⁶⁾ Reference voltage DC 50 V

Order Information	
Type	Part no.
DT 200-111	1 022 938
DT 200-111A01	1 022 946