




DT 60

Distance Sensor "Long range"

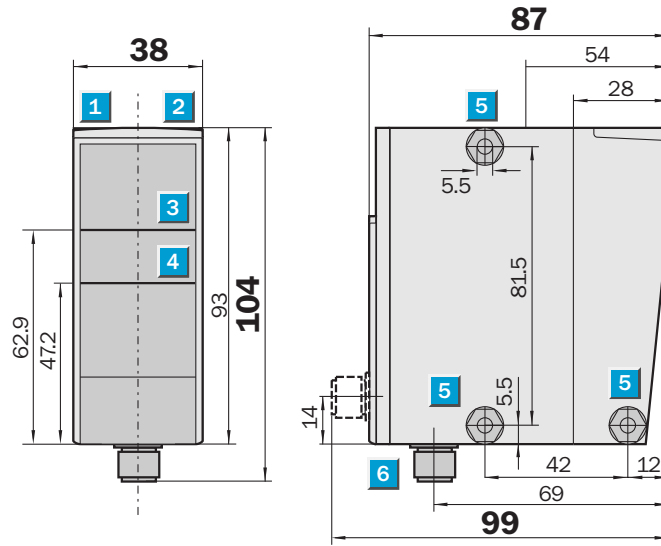


 **Measurement range**
200 ... 5300 mm

Distance Sensor

- Analogue output 4 ... 20 mA
- Teach-in and Plug & Play version
- High measuring accuracy
- Visible red light laser
- Power-On LED
- Acknowledgement after Teach-in

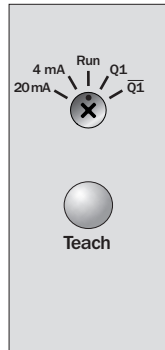
Dimensional drawing



Adjustments possible

DT 60-P111B

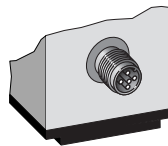
DT 60-N111B



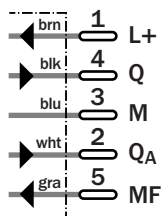
- 1 Power
- 2 Function indicator
- 3 Optical axis, sender
- 4 Optical axis, receiver
- 5 Mounting hole
- 6 M12 plug, 5-pin
- 7 Operating panel Teach-in version

Connection type

All types



5-pin, M12



Technical data	DT 60-	P111B	N111B	P111B bbee	N111B bbee						
Teach-in version											
Plug & Play version	Measuring range freely selectable										
Measuring range											
(min. ... measuring distance)	200 mm ... 5300 mm										
Object with 3% remission	200 mm ... 2000 mm										
Object with 6% remission	200 mm ... 2800 mm										
Object with 18% remission	200 mm ... 5000 mm										
Object with 90% remission	200 mm ... 5300 mm										
Light source ¹⁾	Laser diode, red light										
Light spot at 2 m distance	Ø 10 mm										
Supply voltage V_S ²⁾	11 ... 30 V DC										
Power consumption ³⁾	< 3 W										
Ripple ⁴⁾	≤ 5 V _{SS}										
Analogue output (invertable)	4 ... 20 mA										
Accuracy ⁵⁾	± 10 mm										
Reproducibility	± 8 mm typ.										
Resolution	1.5 mm										
Response time	50 ms ... 250 ms ⁶⁾										
Cycle time	< 55 ms										
Output rate	< 15 ms										
Temperature drift	0.4 mm/K typ.										
Switching outputs (invertable)	Q										
	\bar{Q}										
DL 60-P: PNP	HIGH = U _V - (< 2 V)/LOW = 0 V										
DL 60-N: NPN	HIGH = U _V /LOW ≤ 2 V										
Output current I_A ⁷⁾	100 mA										
Multifunction MF	Laser off										
Connection type	M12 plug, 5-pin										
VDE protection class ⁸⁾	II										
Laser protection class	2 (EN 60 825-1)										
Enclosure rating	IP 67										
Ambient temperature	Operation -25 ... +55 °C										
	Storage -25 ... +75 °C										
Weight	202 g										

¹⁾ Average service life 50,000 h at T_A = +25 °C

²⁾ Limit values, reverse-polarity protected

³⁾ Without load

⁴⁾ May not exceed or fall short of V_S tolerances

⁵⁾ After 30 minutes on-time

⁶⁾ Adaptive, depending on degree of reflectance

⁷⁾ Output Q short-circuit protected

⁸⁾ Reference voltage DC 50 V

Plug & Play version: measuring range freely selectable, measuring range bb to ee ± 4 mA ... 20 mA

DT 60-P/N111Bbbee	
bb: min. measuring distance ⁹⁾	ee: max. measuring distance ⁹⁾
Q2 ¹⁰⁾	53 ¹¹⁾

⁹⁾ Minimum distance between bb and ee must be 0.3 units (0.3 ± 300 mm)

¹⁰⁾ 02 ± 200 mm; 53 ± 5300 mm

¹¹⁾ 90% remission

1st example: measuring range 1200 mm ... 3400 mm

DT 60-P/N111B1234	
4 mA ± 1200 mm	20 mA ± 3400 mm

2nd example: measuring range 4200 mm ... 3800 mm (Inverted characteristic curve)

DT 60-P/N111B4238	
4 mA ± 4200 mm	20 mA ± 3800 mm

Order information

Type	Part no.	Type	Part no.
DT 60-P111B	1 025 843	DT 60-P111B0253	1 026 063
DT 60-N111B	1 025 844	DT 60-N111B0253	1 026 160
DT 60-P111B0520	1 025 847	DT 60-P111Bbbee ⁹⁾	X XXX XXX

⁹⁾ Measuring range freely selectable

Great Britain

Phone +44 (0)1727 83 11 21
E-Mail: info@sick.co.uk

USA

Phone +1(952) 941-6780
tollfree +1-800-325-7425
E-Mail: info@sickusa.com

Australia

Phone +61 3 9497 4100
tollfree +1800 33 48 02
E-Mail: sales@sick.com.au

More representatives and agencies in all major industrial nations at www.sick.com

