



DL 60

Distance Sensor

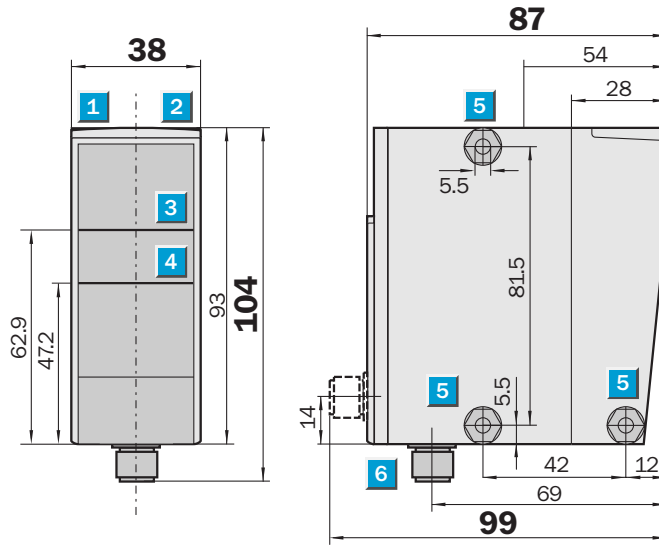


Measurement range
300 mm ... 24 m

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

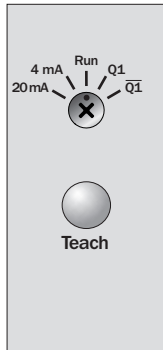
Dimensional drawing



Adjustments possible

DL 60-P111B

DL 60-N111B



7

- 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

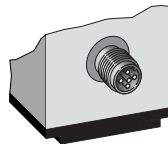
Connection type

DL 60-P111B

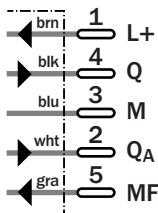
DL 60-P111Bbbee

DL 60-N111B

DL 60-N111Bbbee



5-pin, M12



Technical data	DL 60-	P111B	N111B	P111B bbee	N111B bbee						
Teach-in version											
Plug & Play version											
(max. measuring distance)	Measuring range freely selectable										
Measuring range											
(min. measuring distance)											
Reflective Tape: REF-5870-K2	300 mm... 24000 mm ¹⁾										
Light source ²⁾	Laser diode, red light										
Light spot at 2 m distance	Ø 20 mm										
Supply voltage V _S ³⁾	11 ... 30 V DC										
Power consumption ⁴⁾	< 3 W										
Residual ripple ⁵⁾	≤ 5 V _{PP}										
Analogue output (invertable)	4 ... 20 mA										
Accuracy ⁶⁾	± 15 mm										
Reproducibility	± 7 mm										
Resolution	12 Bit ⁷⁾										
Response time	130 ms										
Cycle time	< 8 ms										
Output rate	< 8 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 ⁸⁾	100 mA										
Multifunction MF	Laser off										
Connection type	M12 plug, 5-pin										
VDE protection class ⁹⁾	II										
Laser protection class	2 (EN 60 825-1)										
Enclosure rating	IP 67										
Ambient temperature	Operation -25 ... +55 °C										
	Storage -25 ... +75 °C										
Initialisation time	550 ms										
Weight	202 g										

¹⁾ 40 m on request

²⁾ Average service life 50,000 h at T_A = +25 °C

³⁾ Limit values, reverse-polarity protected

⁴⁾ Without load

⁵⁾ May not exceed or fall short of V_S tolerances

⁶⁾ After 30 minutes on-time

⁷⁾ At 24 m measuring distance = 7 mm

⁸⁾ Output Q short-circuit protected

⁹⁾ Reference voltage DC 50 V

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

DL 60-P/N111Bbbee	
bb: min. measuring distance ¹⁰⁾	ee: max. measuring distance ¹⁰⁾
00 ¹¹⁾	24 ¹¹⁾

¹⁰⁾ Minimum distance between bb and ee must be 01 units (01 ≅ 1 m)

¹¹⁾ 00 ≅ 300 mm; 24 ≅ 24 m

1st example: measuring range 300 mm ... 24 m

DL 60-P/N111B0024	
4 mA ≅ 300 mm	20 mA ≅ 24 m

2nd example: measuring range 2 m ... 10 m

DL 60-P/N111B0210	
4 mA ≅ 2 m	20 mA ≅ 10 m

Order information

Type	Part no.	Type	Part no.
DL 60-P111B	1 025 848	DL 60-N111B0024	1 026 363
DL 60-N111B	1 026 360	DL 60-P111Bbbee ^{*)}	X XXX XXX
DL 60-P111B0024	1 026 361	DL 60-N111Bbbee ^{*)}	X XXX XXX
DL 60-P111B0210	1 026 362		

^{*)} 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

