

DL 60

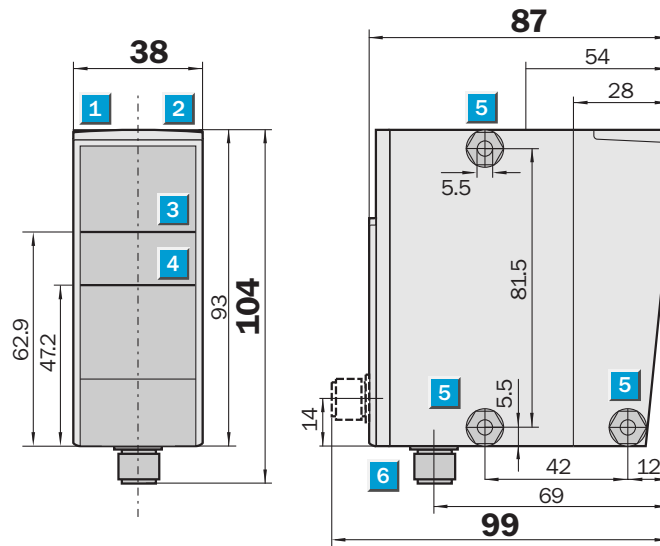
Distance Sensor



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

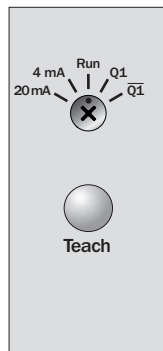
Dimensional drawing



Adjustments possible

DL 60-P111B

DL 60-N111B



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- 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

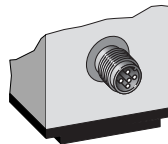
Connection type

DL 60-P111B

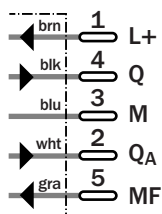
DL 60-P111Bbbee

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

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