



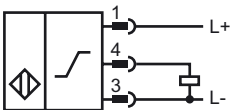
Model Number

NBB5-18GM60-I3-V1

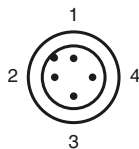
Features

- Inductive analog
- Output 0 mA ... 20 mA
- Embeddable mounting

Connection



Pinout



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)

Accessories

BF 18

Mounting flange, 18 mm

V1-G

4-pin, M12 female field-attachable connector

V1-W

4-pin, M12 female field-attachable connector

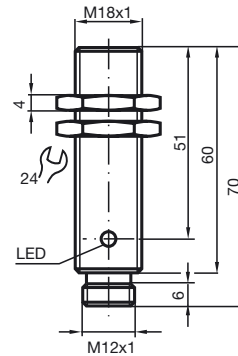
V1-G-2M-PUR

Cable socket, M12, 4-pin, PUR cable

V1-W-2M-PUR

Cable socket, M12, 4-pin, PUR cable

Dimensions



Technical Data

General specifications

Switching element function	Analog current output
Installation	embeddable
Output polarity	DC
Measurement range	1 ... 5 mm

Nominal ratings

Operating voltage	U_B	10 ... 30 V
Repeat accuracy		0 ... 20 μ m
No-load supply current	I_0	\leq 12 mA

Analog output

Output type	0 ... 20 mA
Slope of output characteristic	5 mA / mm
Linearity error	$\leq \pm 4$ % of full-scale value
Load resistor	\leq 1000 Ω
Rate of current rise	
0 ... 20 mA	max. 4.8 A/s
20 ... 0 mA	max. 4.6 A/s
Recovery time	1 ... 10 ms, typ. 5 ms
Adjustment tolerance zero point	$\leq \pm 10$ % of full-scale value
Temperature drift	$\leq \pm 0.1$ %/K of the measured value
Operating voltage	≤ 1 %
Residual ripple	± 30 μ A

Ambient conditions

Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
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Mechanical specifications

Connection type	Device connector M12 x 1, 4-pin
Housing material	brass, nickel-plated
Sensing face	PBT
Protection degree	IP67

Compliance with standards and directives

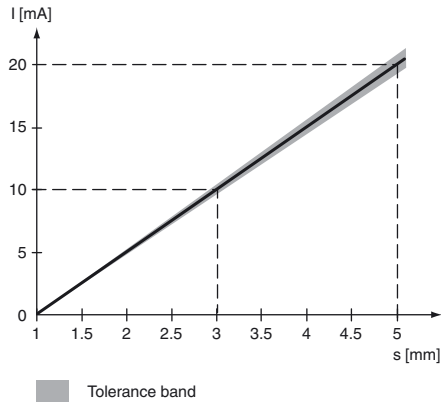
Standard conformity	
Standards	EN 60947-5-2:2007 IEC 60947-5-2:2007 EN 60947-5-7:2003 IEC 60947-5-7:2003

Approvals and certificates

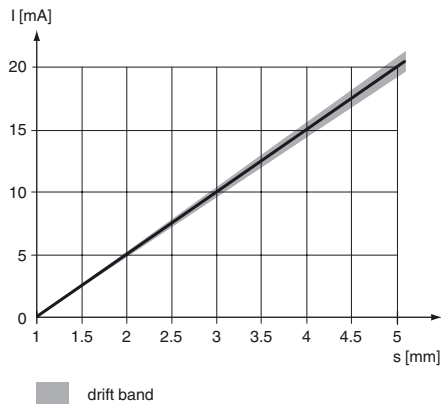
UL approval	cULus Listed, General Purpose
CSA approval	cCSAus Listed, General Purpose
CCC approval	Products with a maximum operating voltage of ≤ 36 V do not bear a CCC marking because they do not require approval.

Curves

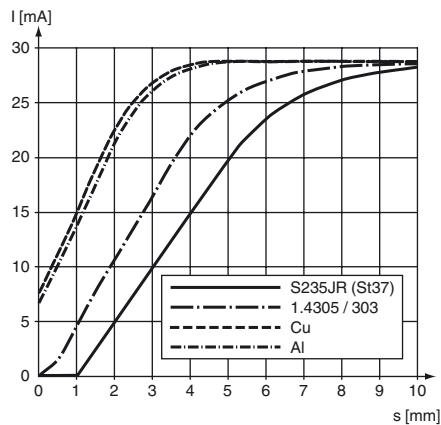
Output characteristics



Temperature drift



Reduction factor



Release date: 2011-07-14 15:44 Date of issue: 2011-07-14 212681_eng.xml