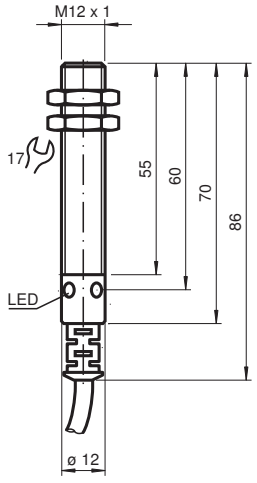
Inductive sensor

NCB4-12GM70-E1-M

- Comfort series
- 4 mm flush
- Increased operating distance
- Extended temperature range -40 ... +85 °C
- E1-Type approval
- Increased noise immunity 100 V/m

Dimensions



Technical Data

General specifications		
Switching function		Normally closed (NC)
Output type		NPN
Rated operating distance	s_n	4 mm
Installation		flush
Output polarity		DC
Assured operating distance	s_a	0 ... 3.24 mm
Reduction factor r_{Al}		0.45
Reduction factor r_{Cu}		0.4
Reduction factor r_{304}		0.75
Nominal ratings		
Operating voltage	U_B	10 ... 60 V
Switching frequency	f	0 ... 1000 Hz

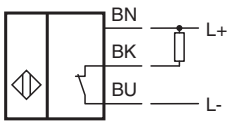
Release date: 2020-03-23 Date of issue: 2020-03-30 Filename: 180331_eng.pdf

ПРОМЭЛЕКТРОНИКА / sales@prom-elec.com

Technical Data

Hysteresis	H	typ. 5 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 3 V
Rated insulation voltage	U_{BIS}	60 V
Operating current	I_L	0 ... 200 mA
Off-state current	I_r	0 ... 0.5 mA typ. 0.1 µA
No-load supply current	I_0	≤ 10 mA
Time delay before availability	t_v	≤ 5 ms
Switching state indicator		LED, yellow
Functional safety related parameters		
$MTTF_d$		1090 a
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		0 %
Compliance with standards and directives		
Standard conformity		
Standards		EN 60947-5-2:2007 IEC 60947-5-2:2007
Approvals and certificates		
Protection class		II
Rated insulation voltage	U_i	60 V
Rated impulse withstand voltage	U_{imp}	800 V
UL approval		cULus Listed, General Purpose
CSA approval		cCSAus Listed, General Purpose
E1 Type approval		10R-04
Ambient conditions		
Ambient temperature		-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications		
Connection type		cable PUR , 2 m
Core cross-section		0.75 mm^2
Housing material		Stainless steel 1.4305 / AISI 303
Sensing face		PBT
Degree of protection		IP69K
Mass		120 g

Connection



Release date: 2020-03-23 Date of issue: 2020-03-30 Filename: 180331_eng.pdf

Mounting

Emitted interference and interference immunity in accordance with motor vehicle directive 2006/28/EG (e1 Type approval)
Interference immunity in accordance with DIN ISO 11452-2:
Severity IV 100 V/m
Frequency band 200 MHz up to 2 GHz
Interference immunity to DIN ISO 11452-3:
Severity IV 200 V/m
Frequency band 0.15 MHz to 200 MHz
Mains-borne interference in accordance with ISO 7637-2:

Pulse	1	2a	2b	3a	3 b	4	5
Severity level	IV	IV	IV	IV	IV	IV	IV
Failure criterion	C	A	C	A	A	A	C

EN 61000-4-2:	CD: 8 kV / AD: 15 kV
Severity level	IV IV
EN 61000-4-3:	10 V/m (80...1000 MHz)
Severity level	III
EN 61000-4-4:	2 kV
Severity level	III
EN 61000-4-5:	Supply line to line 0.5 kV
Severity level	I
EN 61000-4-6:	10 V (0.15...80 MHz)
Severity level	III
EN 55011:	Class B

Accessories

	BF 12	Mounting flange, 12 mm

Release date: 2020-03-23 Date of issue: 2020-03-30 Filename: 180331_eng.pdf