



Model Number

NBB40-FP-B3B-P1-V1

Features

- Basic series
- NO/NC selectable
- On/Off delay (disconnectable)
- Oscillator monitoring
- A/B slave with extended addressing possibility for up to 62 slaves

Technical Data

General specifications

Switching function		Normally open/closed (NO/NC) programmable
Output type		AS-Interface
Rated operating distance	s_n	40 mm
Installation		flush
Assured operating distance	s_a	0 ... 32.4 mm
Actual operating distance	s_r	36 ... 44 mm typ. 40 mm
Reduction factor r_{AI}		0.25
Reduction factor r_{CU}		0.23
Reduction factor r_{304}		0.85
Output type		2-wire

Nominal ratings

Operating voltage	U_B	26.5 ... 31.9 V via AS-i bus system
Switching frequency	f	0 ... 80 Hz
Hysteresis	H	1 ... 15 typ. 5 %
Reverse polarity protection		reverse polarity protected
Time delay before availability	t_v	≤ 1000 ms
Operating voltage indicator		LED green
Switching state indicator		LED yellow
Error indicator		LED red

Ambient conditions

Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)

Mechanical specifications

Connection type		4-pin, M12 x 1 connector
Housing material		PBT
Sensing face		PBT
Housing base		PBT
Degree of protection		IP67

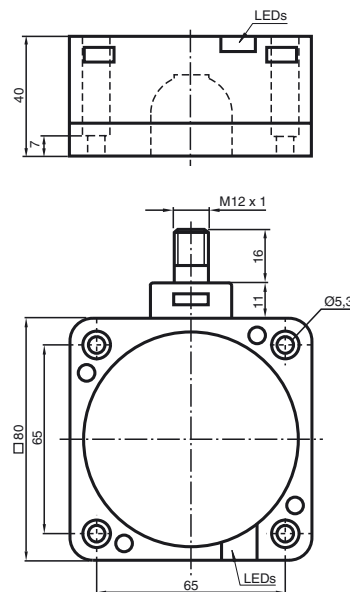
Compliance with standards and directives

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

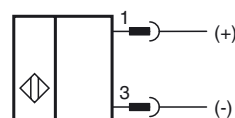
Approvals and certificates

UL approval		cULus Listed, General Purpose
CSA approval		cCSAus Listed, General Purpose
CCC approval		CCC approval / marking not required for products rated ≤36 V

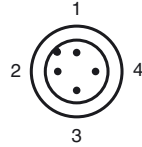
Dimensions



Electrical Connection



Pinout



Wire colors in accordance with EN 60947-5-2

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

Programming Instructions

Address 00 preset, alterable via Busmaster or programming units
 IO-Code 0
 ID-Code A
 ID1-Code 7
 ID2-Code E

Data bit

Bit	Function
D0	Switching state
D1	not used
D2	Oscillator monitoring
D3	not used

Parameter bit

Bit	Function
P0	ON / Off delay activated* / deactivated
P1	Switching element function NO* / NC
P2	not used
P3	not used

*Standard setting

Indication depending on the operation mode

Symptoms	red LED (FAULT)	Data bit D2
normal operation	off	1
Oscillator defect	flashing	0
no communication	on	1

On/off delay:

The on/off delay is preset and switched on (P0=1). On delay approx.15 ms, when P0=1 and NO function (P1=1). Off delay approx.15 ms, when P0=1 and NC function (P1=0).