

CE

**Model Number**

NBN40+U9A+B3

**Features**

- Basic series
- NO/NC programmable
- Adjustable sensor head
- Oscillator monitoring

**Technical Data****General specifications**

Switching function		Normally open/closed (NO/NC) programmable
Output type		AS-Interface
Rated operating distance	$s_n$	40 mm
Installation		non-flush
Assured operating distance	$s_a$	0 ... 32.4 mm
Actual operating distance	$s_r$	36 ... 44 mm typ. 40 mm
Reduction factor $r_{AI}$		0.5
Reduction factor $r_{CU}$		0.45
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 ... 150 Hz
Hysteresis	$H$	1 ... 15 typ. 5 %
Reverse polarity protection		reverse polarity protected
Design data		
No-load supply current	$I_0$	$\leq 25$ mA
Time delay before availability	$t_v$	$\leq 1000$ ms
Operating voltage indicator		LED, green
Switching state indicator		LED, yellow

**Standard conformity**

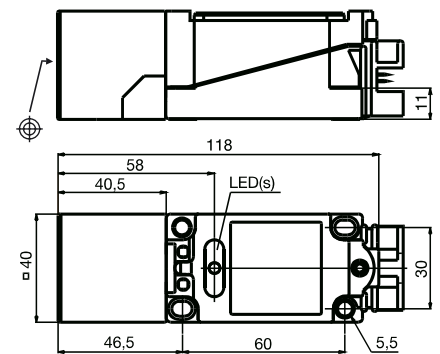
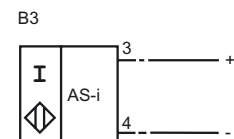
Standards	IEC / EN 60947-5-2:2004
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**Ambient conditions**

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

**Mechanical specifications**

Core cross-section	AS-Interface flat cable
Housing material	PBT
Sensing face	PBT
Degree of protection	IP67
Mass	340 g

**Dimensions****Electrical Connection**

**Programming Instructions**

Address 00 preset, alterable  
via Busmaster or  
programming units  
IO-Code 1  
ID-Code 1

**Data bit**

Bit	Function
D0	switching state <sup>1)</sup> (0 = damped; 1 = undamped)
D1	not used
D2	oscillator monitoring (0= oscillator defective, 1=normal operation)
D3	not used

**Parameter bit**

Bit	Function
P0	not used
P1	switching element function <sup>2)</sup> (0 = NC; 1 = NO)
P2	not used
P3	not used

- <sup>1)</sup> Applies to NO funktion (P1 = 1; preset),  
with NC funktion (P1 = 0) reversed characteristics  
<sup>2)</sup> Default setting: NO