

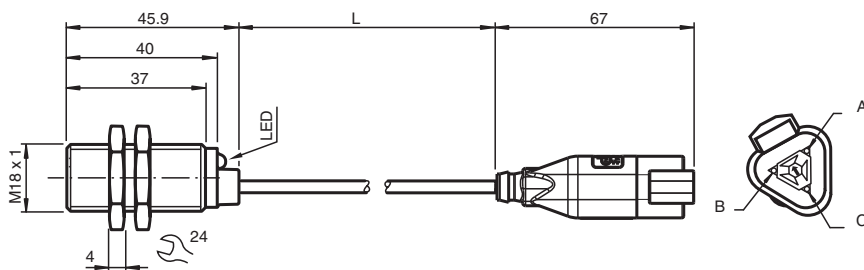
## Inductive sensor

### NBB8-18GM40-EU-M1-300MM-3DT04

- 8 mm flush
- 0.5 / 4.5 VDC switching output for mobile equipment controls
- Extended temperature range  
-40 ... +85 °C
- 3-pin Deutsch connector (DT04)
- Highly shock and vibration resistant
- Raised EMC resistance 30 V/m
- With increased sealing, protection class  
IP68 / IP69K



## Dimensions



## Technical Data

### General specifications

Output type		Digital voltage output
Rated operating distance	$s_n$	8 mm
Installation		flush
Output polarity		DC
Assured operating distance	$s_a$	0 ... 6.48 mm
Actuating element		mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 24 mm x 24 mm x 1 mm
Reduction factor $r_{Al}$		0.4
Reduction factor $r_{Cu}$		0.3
Reduction factor $r_{304}$		0.7
Reduction factor $r_{Brass}$		0.45
Output type		3-wire

### Nominal ratings

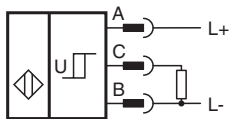
Operating voltage	$U_B$	7 ... 30 V DC
Switching frequency	$f$	0 ... 1600 Hz
Hysteresis	$H$	2 ... 15 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		yes
Temperature drift		$\leq 10 \%$
No-load supply current	$I_0$	$\leq 15 \text{ mA}$
Time delay before availability	$t_v$	$\leq 100 \text{ ms}$
Load resistor		min. 20 k $\Omega$

Release date: 2025-07-01 Date of issue: 2025-07-01 Filename: 70128556\_eng.pdf

## Technical Data

Switching state indicator	LED, yellow
<b>Digital output</b>	
Output value	object detected: 4.5 V ± 0.2 V object not detected: 0.5 V ± 0.2 V
<b>Compliance with standards and directives</b>	
Standard conformity	
Standards	EN IEC 60947-5-2
<b>Ambient conditions</b>	
Ambient temperature	-40 ... 85 °C (-40 ... 185 °F)
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)
<b>Mechanical specifications</b>	
Connection type	fixed cable with plug
Housing material	brass , white bronze coated
Sensing face	PBT , green
Degree of protection	IP68 / IP69K
Connector	
Connection assembly	Deutsch connector DT04-3P-CE02 Deutsch contact 1060-16-0622 Deutsch wedge W3P
<b>Cable</b>	
Cable diameter	6 mm ± 0.2 mm
Bending radius	> 6 x cable diameter
Material	PUR
Color	black
Number of cores	3
Core cross section	0.75 mm <sup>2</sup>
Length	L 285 mm ± max. 10 mm
<b>Dimensions</b>	
Length	46 mm
Diameter	18 mm
<b>General information</b>	
Scope of delivery	2 self locking nuts in scope of delivery

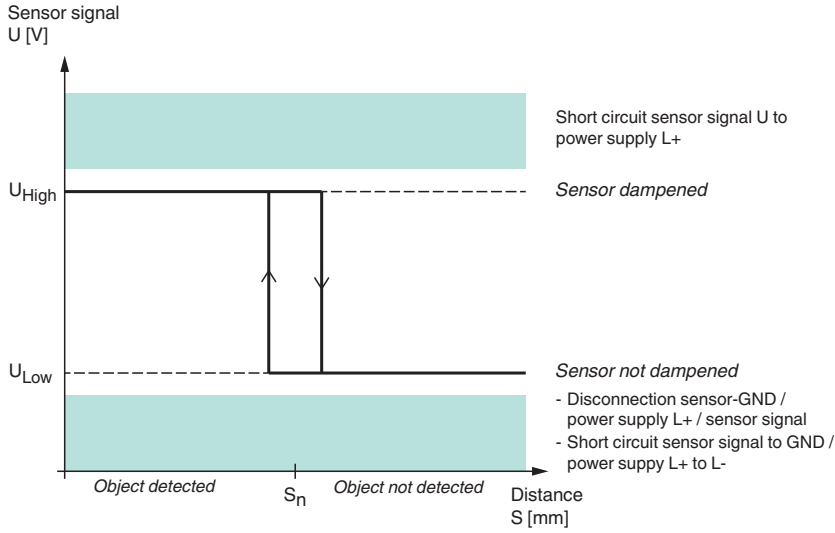
## Connection Assignment



### Wire colors

A	BN
B	BU
C	BK

**Operation**



**Technical Features**

Mains-borne interference in accordance with ISO 7637-2:

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

EN 61000-4-2: CD: 8 kV / AD: 15 kV  
Severity level IV IV

EN 61000-4-3: 36 V/m (80...2500 MHz)  
Severity level IV

EN 61000-4-4: 2 kV  
Severity level III

EN 61000-4-6: 30 V (0.01...80 MHz)  
Severity level III

EN 55011: Class A

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