

**Overview**

- 8 mm
- PNP make function (NO)
- cable, 2 m
- -40 ... 85 °C
- Protection class IP68 / IP69K



Picture similar



**Technical data**

**General data**

Mounting type	Flush
Special type	Vehicle
Nominal sensing distance Sn	8 mm
Hysteresis	3 ... 10 % of Sr
Output indicator	LED red
Approvals/certificates	EN 60947-5-2:2007, Sec 8.6 EN 13309:2010 <sup>1) 3)</sup> EN ISO 14982:2009 <sup>1) 2)</sup> ISO 13766:2006 <sup>1)</sup>

**Electrical data**

Switching frequency	800 Hz
Voltage supply range +Vs	7 ... 48 VDC
Current consumption max. (no load)	10 mA
Output circuit	PNP make function (NO)
Voltage drop Vd	< 2 VDC
Output current	< 200 mA
Short circuit protection	Yes
Reverse polarity protection	Yes
Off-Highway Electromagnetic immunity	ISO 11452-4: 200mA ISO 11452-2: 100V/m Based on UN / ECE R10 Rev 5 ch. 6.8 (no ECE type approval available)

**Electrical data**

Off-Highway Emission	EN 55011 Based on UN / ECE R10 Rev 5 ch. 6.5, 6.6 (no ECE type approval available)
Conducted interference	ISO 7637-2, ISO 16750-2, details see section "Test pulses"

**Mechanical data**

Type	Cylindrical threaded
Material (sensing face)	PBT
Housing material	Brass nickel plated
Dimension	18 mm
Housing length	50 mm
Connection types	Cable, L=2 m
Tightening torque max.	40 Nm (A: 28 Nm, B: 28 Nm)

**Ambient conditions**

Operating temperature	-40 ... +85 °C
Protection class	IP 68 (sensing face/sensor) IP 68 (1,5 m, 24 h) IP 69K (sensing face)

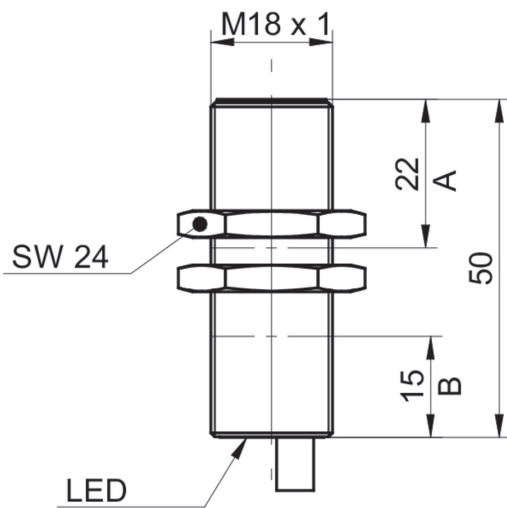
**Remarks**

- 1) only for use in machines with centralized load dump suppression (58 V DC)
- 2) shall not be used in the direct control and modification of the state of function of the machine
- 3) not for operations during engine start phase in 12 VDC / 24 VDC vehicle power

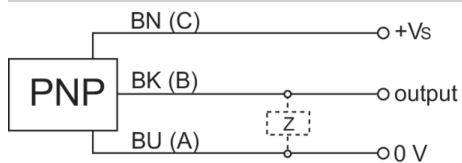
**Test pulses**

Test pulse (ISO 7637-2, ISO 16750-2)	1	2a	2b	3a	3b	4	5b
Severity level	IV	III	IV	III	III	III	
Functional status (12V/24V System)	C	A	C	A	A	C/B	A

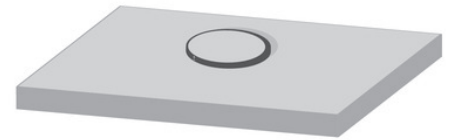
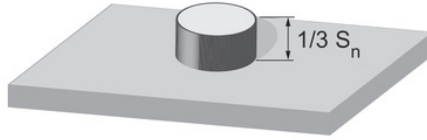
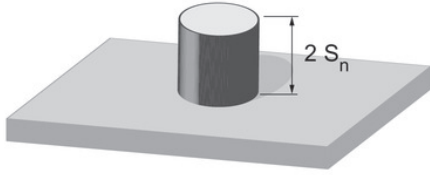
**Dimension drawing**



**Connection diagram**



**Correction factors for different mounting situation (approx.)**



Mounting material	Correction factor
Mild steel	100 %
Stainless steel	100 %
Aluminum	100 %

Mounting material	Correction factor
Mild steel	105%
Stainless steel	95 %
Aluminum	95 %

Mounting material	Correction factor
Mild steel	not possible
Stainless steel	95 %
Aluminum	80 %

**Mounting instructions**

