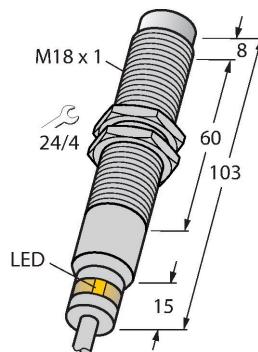


# NI7-EM18D-VP6X/S120

## Inductive Sensor – For Harsh Environments and Temperatures up to 120 °C



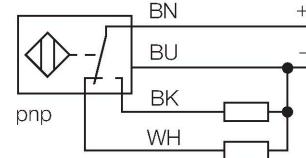
### Features

- Threaded barrel, M18 x 1
- Stainless steel, 1.4571
- Viton sealing ring
- Protection class IP68/IP69K
- For temperatures up to +120 °C
- PTFE front cap
- Climate-proof
- Resistance to cooling lubricants, cutting and grinding oils
- Suitable for applications in the food industry
- DC 4-wire, 10...30 VDC
- Changeover contact, PNP output
- Cable connection

### Technical data

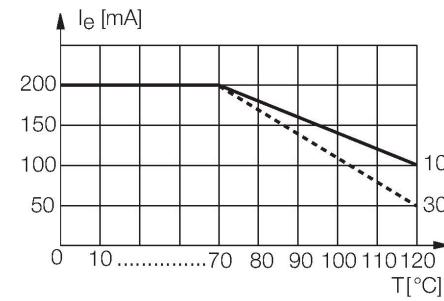
Type	NI7-EM18D-VP6X/S120
Ident. no.	4632100
Rated switching distance	7 mm
Mounting conditions	Non-flush
Secured operating distance	$\leq (0.81 \times S_n) \text{ mm}$
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	$\leq 2 \text{ % of full scale}$
Temperature drift	$\leq \pm 10 \text{ %}$
	$\leq \pm 20 \text{ %, } \geq +70 \text{ }^{\circ}\text{C}$
Hysteresis	3...15 %
Ambient temperature	-25...+120 °C
Operating voltage	10...30 VDC
Residual ripple	$\leq 10 \text{ % } U_{ss}$
DC rated operational current	$\leq 200 \text{ mA}$
Rated operational current	See derating curve
No-load current	$\leq 15 \text{ mA}$
Residual current	$\leq 0.1 \text{ mA}$
Isolation test voltage	$\leq 0.5 \text{ kV}$
Short-circuit protection	yes / Cyclic
Voltage drop at $I_o$	$\leq 1.8 \text{ V}$
Wire breakage/Reverse polarity protection	yes / Complete
Output function	4-wire, Complementary contact, PNP

### Wiring diagram



### Functional principle

TURCK offers leak-proof sensors for the food industry and machine engineering that are resistant to cleaning agents, cooling lubricants, cutting and grinding oils. They are made for rough environmental conditions and not only meet but even exceed the requirements of the protection classes IP68 and IP69. Special versions are available for ambient temperatures between -60°C and +250°C.

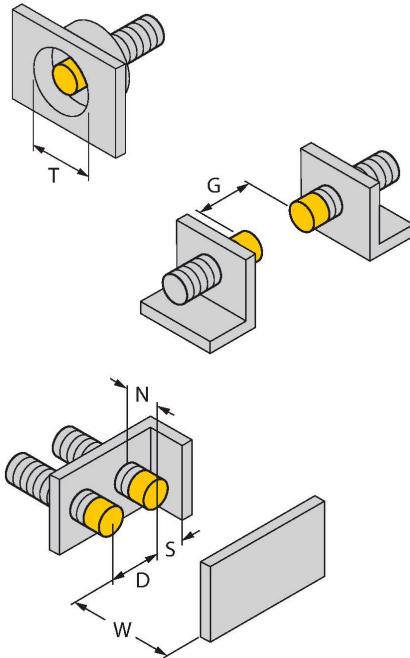


## Technical data

Switching frequency	0.1 kHz
Design	Threaded barrel, M18 x 1
Dimensions	103 mm
Housing material	Stainless steel, 1.4571 (AISI 316Ti)
Active area material	Plastic, PTFE
End cap	Plastic, PTFE
Admissible pressure on front cap	≤ 10 bar
Max. tightening torque of housing nut	25 Nm
Electrical connection	Cable
Cable quality	Ø 3.7 mm, PTFE, FEP, 2 m
Core cross-section	4 x 0.25 mm <sup>2</sup>
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68 / IP69K
Switching state	LED, Yellow

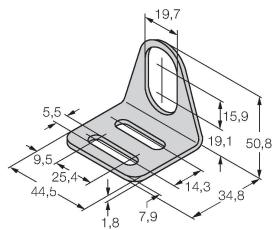
## Mounting instructions

### Mounting instructions/Description



Distance D	3 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn
Distance N	2 x Sn
Diameter active area B	Ø 18 mm

## Accessories

**MW-18****6945004**

Mounting bracket for threaded barrel  
sensors; material: Stainless steel A2  
1.4301 (AISI 304)