Photoelectrics Fork Sensor Type PF80 FNT .. BP .. T





- Slot width of 3 mm
- Settings: Standard and fine mode
- Teach-In: Push button or by wire
- Universal output: NPN, PNP, NO or NC
- Teach-In lock
- High speed of detection
- Detection of transparent material

CE

Ordering Key

Product Description

Detection of labels, marks and double sheets, as well as holes and edges are typical applications for the PF80 fork sensor.

The sensor is made in a strong aluminium housing with 8 mm plug for fast disconnection.

Ordering Key	PF80FNT03BPM5T
Туре	
Housing style ———	
Housing size —	
Housing material	
Housing length ———	
Detection principle ——	
Slot width (mm)	
Output type	
Output configuration —	
Connection type	
Teach-In mode	

Type Selection

Housing W x H x D	Slot width	Ordering no. NPN, PNP, make or break switching
12 x 37.5 x 80 mm	3 mm	PF 80 FNT 03 BPM5T

Specifications

Fork width	3 mm
Sensitivity Teach-In through switch or wire Standard setting Fine setting	ET to V+ 1 pulse 0.3 4 s 1 pulse 0.3 4 s + 1 pause 0.3 1.3 s + 1 pulse 0.3 4 s
Temperature drift	≤ 0.4%/°C
Rated operational volt. (U_B)	10 to 30 VDC (ripple included)
Ripple (U _{rpp})	≤ 10%
Output current Continuous (I _e) Short-time (I)	≤ 100 mA ≤ 100 mA
No load supply current (l _o)	≤ 40 mA
Voltage drop (U _d)	≤ 2 VDC @ 100 mA ≤ 1 VDC @ 10 mA
Protection	Short-circuit, transients
Light type Ambient light	Infrared, incandescent light ≤ 3,000 lux
Operating frequency	10 kHz

Response times	
OFF-ON (t _{on})	≤ 50 μs
ON-OFF (t _{OFF})	≤ 50 μs
Power ON delay (t _v)	≤ 300 ms
Output function	
NPN and PNP	Available (push-pull output)
Make or break (light or dark)	Programmed by reversing power supply
Indication (function)	
Uninterrupted light path	LED, red
Free light path	LED, yellow
Environment	
Installation category	l (IEC 60664/60664A; 60947-1)
Pollution degree	3 (IEC 60664/60664A; 60947-1)
Degree of protection	IP 65 (IEC 60529; 60947-1)
Ambient temperature	
Operating	-20° to +60°C (-4° to +140°F)
Storage	-20° to +80°C (-4° to +176°F)
Vibration	10 to 150 Hz, 0.5 mm/7.5 g (IEC 60068-2-6)
Shock	2 x 1 m and 100 x 0.5 m (IEC 60068-2-6, 60068-2-32)



Specifications (cont.)

Rated insulation voltage	50 VAC (rms)
Housing material	
Body	Aluminium, black
Connection	
Plug	M8 x 1, 4-pin, NPB
Weight	Approx. 60 g
CE-marking	Yes

Dimensions



Wiring Diagrams



Installation Hints



Delivery Contents

- Photoelectric switch: PF 80 FNT 03 BPM5T
- Accessories
- Connector type CONG5A-.. series

Packaging: Cardboard box

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Teach-In Procedure

Teach-in

The switching threshold is set as described in the following **Teach-in Procedure**. This can be done via the ET wire (External Teach) or by using the Teach-in button on the sensor.

Teach-in Procedure

1) Place the object in the fork opening covering the light beam.

2) Activate Teach-in using the teach button or via the ET wire:

Standard setting:

Press once and the red LED flashes (standard hysteresis).

Fine setting: Press twice and the yellow LED flashes.

NB! The last taught settings are always stored in the sensor.

Lock and unlock Teach-in

Lock Teach-in function: Press the teach button for approximately 6 s until the red LED lights continuously. Unlock Teach-in function: Press teach button for approximately 6 s until the red LED goes off.

