

Ind. angular measuring system

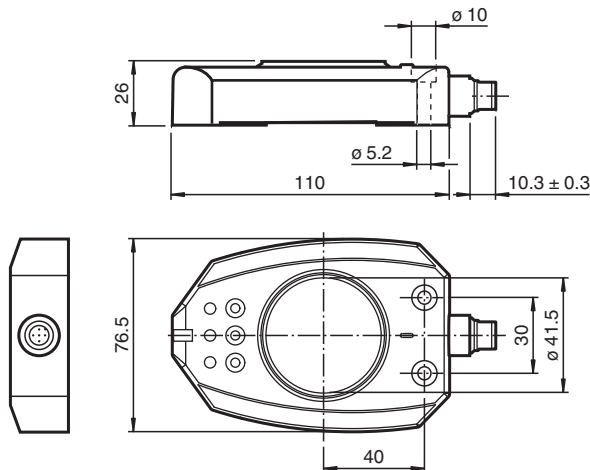
PMI360DV-F130-IU2E2-V15



- Analog output, load-dependent voltage or current
- 2 configurable switching frames
- Parameterisable measuring range



Dimensions



Technical Data

General specifications

Measurement range	max. 360° min. 45°
Adjustment range	2 switch frames programmable , min. 5°, max. 360°
Rotational speed	max. 100 min ⁻¹

Nominal ratings

Operating voltage	U _B	18 ... 30 V DC
Reverse polarity protection		reverse polarity protected
Repeat accuracy	R	± 0.25 °
Resolution		0.2 °
Temperature drift		0.02 ° / °C (-25 °C ... 70 °C)
No-load supply current	I ₀	≤ 45 mA
Time delay before availability	t _v	1 s

Functional safety related parameters

MTTF _d	450 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %

Indicators/operating means

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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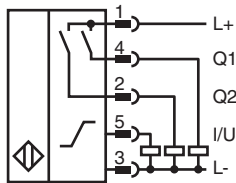
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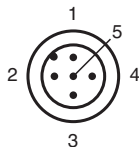
Technical Data

LED yellow 1		switching state, Switching output 1
LED yellow 2		switching state, Switching output 2
LED PWR/ERR		Status display LED, green/red (Power on / missing actuator / keylock)
LED U/I		Activator within measuring range
Switching output		
Output type		2 switch outputs PNP, NO , reverse polarity protected , short-circuit protected , programmable
Operating current	I_L	≤ 100 mA
Switching hysteresis		1°
Voltage drop		≤ 3 V
Short-circuit protection		pulsing
Analog output		
Output type		current output or voltage output (load dependend) 4 ... 20 mA ($R_L < 400 \Omega$) 0 ... 10 V ($R_L > 3.3 \text{ k}\Omega$)
Linearity error		$\pm 0.6^\circ$, (with original actuator)
Compliance with standards and directives		
Standard conformity		
Standards		EN 60947-5-2:2007 IEC 60947-5-2:2007
Approvals and certificates		
UL approval		cULus Listed, General Purpose, Class 2 Power Source
CCC approval		CCC approval / marking not required for products rated ≤ 36 V
Ambient conditions		
Ambient temperature		$-25 \dots 70^\circ\text{C}$ ($-13 \dots 158^\circ\text{F}$)
Mechanical specifications		
Connection type		5-pin, M12 x 1 connector
Degree of protection		IP67
Material		
Housing		PBT
Target		mild steel, e. g. 1.0037, SR235JR (formerly St37-2)
Mass		180 g

Connection






Connection Assignment



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)
5	GY	(gray)

Accessories

	BT-F130-A	Actuator for F130 series
	V15-G-2M-PVC	Female cordset, M12, 5-pin, PVC cable
	V15-W-2M-PVC	Female cordset, M12, 5-pin, PVC cable

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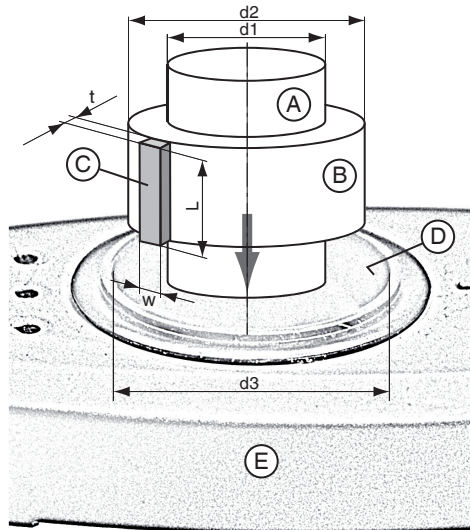
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Additional Information

Using a different actuating element

You can use a different actuator instead of the BT-F130-A actuator provided, which must be positioned centrally in the sensor opening. When using a different actuating element, the element must fulfill all requirements relating to the material, dimensions and distance to the sensitive surface on the sensors (see table). Failing to fulfill all of these requirements may reduce the accuracy/resolution of the sensor or even cause the sensor to stop functioning.

Dimensions when using a different actuating element



- A Drive shaft
- B Insulation ring made from non-conductive material
- C Separate actuator (L ≥ 23 mm)
- D Sensitive surface on the sensors (black, cylindrical inner surface)
- E Sensor



Actuator (C) can be placed on the insulating ring made from non-conductive material (B) or inserted in this ring.

Dimension	
t	2 mm
w	7.5 mm
L	≥ 23mm
d1	Depending on the drive shaft material S235JR+AR (previously St37-2): max. 19 mm Stainless steel 1.4435 / AISI 316L (V4A): max. 21 mm Stainless steel 1.4305 / AISI 303 (V2A): max. 23 mm
d2	Select so that the distance between the edges of the actuator and the sensitive surface on the sensor is 1 ... 2 mm.
d3	41.5 mm
Actuator material	Mild steel such as S235JR+AR (previously St37-2)

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