

# Ind. angular measuring system

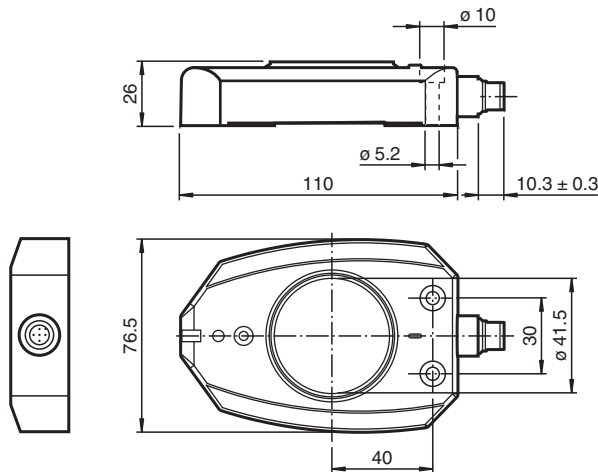
## PMI360DV-F130-IU-V15



- Analog output, load-dependent voltage or current
- Parameterisable measuring range



### Dimensions



### Technical Data

General specifications		
Measurement range		max. 360° min. 45°
Adjustment range		360°
Rotational speed		max. 100 min <sup>-1</sup>
Nominal ratings		
Operating voltage	U <sub>B</sub>	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 <sub>0</sub>	≤ 45 mA
Functional safety related parameters		
MTTF <sub>d</sub>		450 a
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
Indicators/operating means		

Release date: 2022-05-17 Date of issue: 2022-05-17 Filename: 215315\_eng.pdf

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

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0001  
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111  
fa-info@de.pepperl-fuchs.com

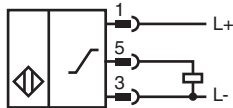
Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS

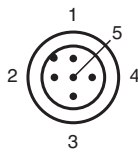
## Technical Data

LED PWR/ERR	LED green / red
LED U/I	Activator within measuring range
<b>Analog output</b>	
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	$\pm 0.6 \text{ }^\circ$ , (with original actuator)
<b>Compliance with standards and directives</b>	
Standard conformity	
Standards	EN 60947-5-2:2007 IEC 60947-5-2:2007
<b>Approvals and certificates</b>	
UL approval	cULus Listed, General Purpose, Class 2 Power Source
CCC approval	CCC approval / marking not required for products rated $\leq 36 \text{ V}$
<b>Ambient conditions</b>	
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
<b>Mechanical specifications</b>	
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**

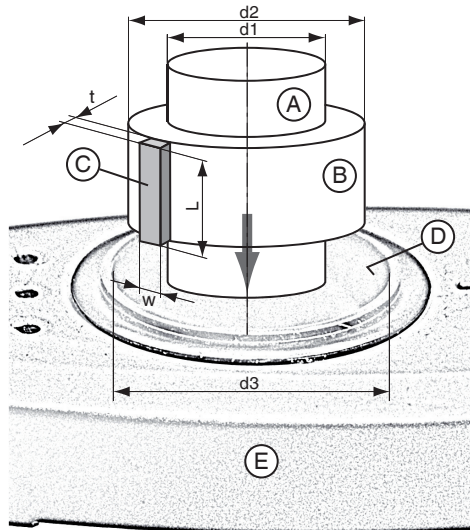
	<b>BT-F130-A</b>	Actuator for F130 series
	<b>V15-G-2M-PVC</b>	Female cordset single-ended M12 straight A-coded, 5-pin, PVC cable grey
	<b>V15-W-2M-PVC</b>	Female cordset single-ended M12 angled A-coded, 5-pin, PVC cable grey

**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)

Release date: 2022-05-17 Date of issue: 2022-05-17 Filename: 215315\_eng.pdf