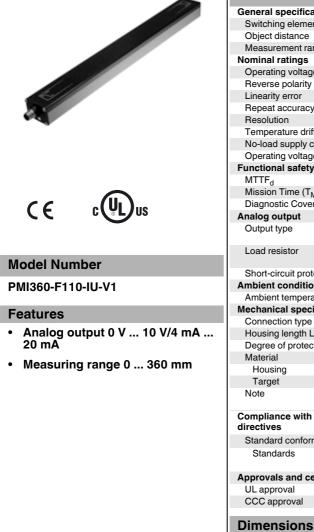
Tech

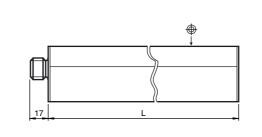


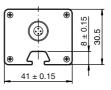


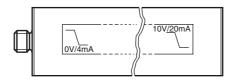
hnical data	
al specifications	
ching element function	analog, current or voltage output
ect distance	max. 6 mm
surement range	0 360 mm
nal ratings	
rating voltage U _B	18 30 V DC
erse polarity protection	reverse polarity protected
arity error	± 0.4 mm
eat accuracy R	± 0.2 mm
olution	360 µm
perature drift	± 0.5 mm (-25 °C 70 °C)
oad supply current I ₀	≤ 40 mA
rating voltage indicator	LED green
ional safety related parameters	
F _d	210 a
ion Time (T _M)	20 a
nostic Coverage (DC)	0 %
g output	
put type	1 current output: 4 20 mA 1 voltage output: 0 10 V
l resistor	current output: $\leq 400 \ \Omega$ voltage output: $\geq 1000 \ \Omega$
t-circuit protection	voltage output: pulsing
ent conditions	
ient temperature	-25 70 °C (-13 158 °F)
anical specifications	
nection type	4-pin, M12 x 1 connector
sing length L	400 mm
ree of protection	IP65
erial	
ousing	PA 6 / AL
rget	mild steel, e. g. 1.0037, SR235JR (formerly St37-2)
)	The data relating to accuracy only apply to a distance to the object to be detected of 1 6 mm.
liance with standards and ives	
dard conformity	
andards	EN 60947-5-2:2007 IEC 60947-5-2:2007

Approvals and certificates

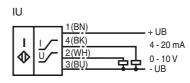
cULus Listed, General Purpose, Class 2 Power Source CCC approval / marking not required for products rated \leq 36 V







Electrical Connection



Core colours in accordance with EN 60947-5-2.

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 4411 fa-info@de.pepperl-fuchs.com

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



Pinout



Wire colors in accordance with EN 60947-5-2

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

Accessories

BT-F110-G

Damping element for F110 housing sensors; front screw holes

BT-F110-W

Damping element for F110 housing sensors; lateral screw holes

V1-G-2M-PVC Female cordset, M12, 4-pin, PVC cable

MH-F110

Mounting bracket for mounting F110 series sensors

Instruction manual

· Security advice



0

Note

This product must not be used in applications, where safety of persons depend on the correct device function.

This product is not a safety device according to EC machinery directive.

Sensor Properties

The inductive positioning system F110 provides both, a current and voltage signal at the outputs, which is proportional to the position of the attenuating element. Output signals: 4 mA ... 20 mA and 0 V ... 10 V

· Attenuating element

The inductive position encoding system F110 is optimally adjusted to the geometry of the attenuating elements we offer (see accessories, below).

> When using your own attenuating elements, you must ensure that the active surface of the attenua-

ting element has a width of exactly 13 mm and overlaps the entire sensor width (41 mm). A different width has a direct impact on the achie-

vable resolution and accuracy of the system.

Spacing between sensor and attenuating element is from 0 \dots 6 mm. Sensing accuracy is guaranteed between 1 \dots 6 mm.

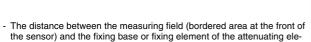
Installation and operation Notes on installation

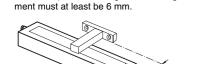
- A flush installation is possible.
- Fixation and installation of the positioning system F110 is carried out by the use of t-slides. This provides a flexible adaptation to the field situation.

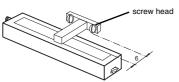


9nt is from 0 ... 6 mm.









Notes on operation

The sensor accuracy can be guaranteed, when the spacing between attenuating element and sensor is within an interval of 1 ... 6 mm.

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

 Pepperl+Fuchs Group
 USA: +1 330 486 0001
 Germany: +49 621 776 4411

 www.pepperl-fuchs.com
 fa-info@us.pepperl-fuchs.com
 fa-info@de.pepperl-fuchs.com

l 776 4411 Singap l-fuchs.com fa-info@sg

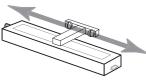
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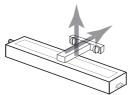


Release date: 2012-05-14 13:31 Date of issue: 2016-05-03 191141_eng.xml

When the attenuating element leaves the measurement range (figures below):

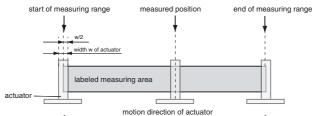
- the last valid value is maintained at the voltage output until the attenuating element re-enters the valid range.
 the last valid value is maintained at the current output for 0.5 seconds. Afterwards, the output changes to a fault current of 3.6 mA until the attenuating element re-enters the valid range.





· Definition of measuring range / of measured position

The measured attenuating elements (actuators) position refers to half its width (middle of the actuator). The measuring range starts and ends when the attenuating element overlaps the labeled measuring area on the sensor at transversal motion (see left figure above).



• Accessories

Attenuating elements BT-F110-G





Mounting brackets



Straight cables: Angled cables:

V1-G-2M-PVC (4 wire) V1-W-2M-PVC (4 wire)

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