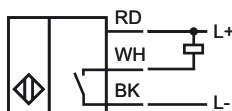


**Model Number**

50FY12-1

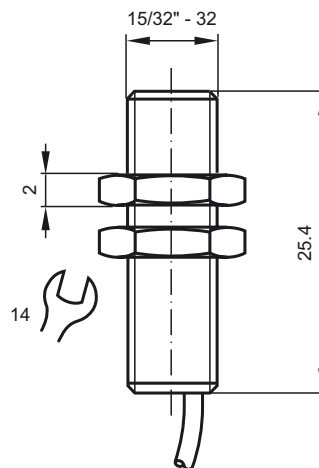
Features

- Magnetic Sensor
- 3-wire DC
- Cylindrical housing

Connection**Accessories**

51FY7

52FY11

Dimensions**Technical Data****General specifications**

Switching element function	NPN normally open
Rated operating distance	s_n 2.03 ... 3.81 mm
Installation	embeddable
Output polarity	DC

Nominal ratings

Operating voltage	U_B 7 ... 16 V
Switching frequency	f 25 kHz
Reverse polarity protected	yes
Short-circuit protection	no
Voltage drop	U_d ≤ 0.4 V
Repeat accuracy	± 1 %
Operating current	I_L ≤ 20 mA
Off-state current	I_r 10 μ A
No-load supply current	I_0 ≤ 10 mA
Release point	3.5 - 7 mm

Ambient conditions

Ambient temperature	-40 ... 105 °C (-40 ... 221 °F)
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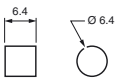
Mechanical specifications

Connection type	cable PVC , 1 m
Core cross-section	0.34 mm ²
Housing material	aluminium
Sensing face	aluminium
Protection degree	IP67

Target Sizes Available

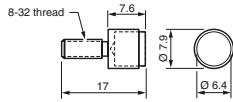
Dimensions (mm) unless otherwise specified

51FY7*



302°F Temperature Limit:

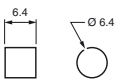
52FY11*



Target Sizes Available

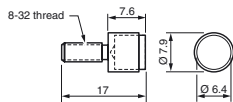
Dimensions (mm) unless otherwise specified

51FY7*



302°F Temperature Limit:

52FY11*



50FY Application Information

Graph 1 illustrates the extremes that 50FY sensors operate and release (regardless of temperature and voltage) as well as typical operate and release points at 75°F. Graph 1 applies to all 50FY sensors actuated with 51FY7, 52FY11 and 52FY15 magnets. The axis of the magnet should be parallel with the axis of the 50FY sensor. These operating characteristics apply only when all ferromagnetic material is at least a half-inch away from the sensing face and from any part of the magnet. Contact Pepperl+Fuchs for assistance with special applications.

For maximum reliability for slide-by actuation, the distance between the sensing face and magnet should be no more than 0.050 inches.

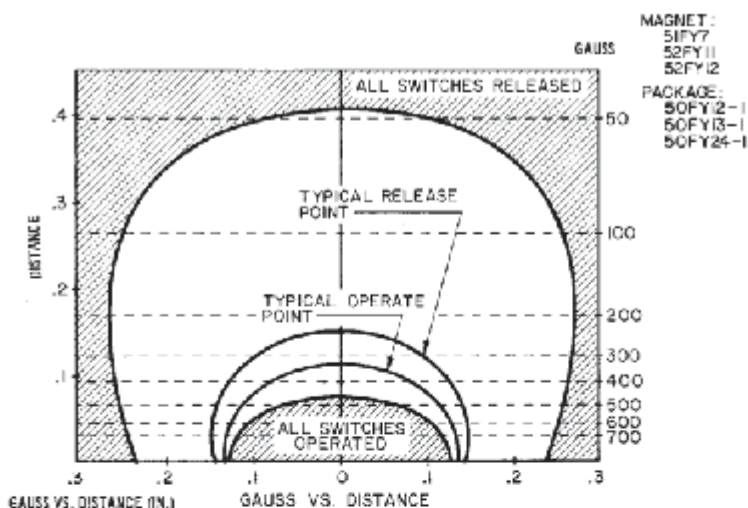
Magnetic Actuation

50FY sensors can be actuated by the south pole of any permanent magnet or electromagnet with sufficient flux density. To simplify application, Pepperl+Fuchs offers permanent magnets for use with 50FY sensors.

Magnets

Pepperl+Fuchs offers permanent bar magnets and self-mounting actuators for 50FY sensors. Refer to Graph 2 for magnetic characteristics.

Graph 1



Graph 2

