

# FIA Series

## ► FIA-C-06-0.6-5/8-IR-1000

- Integrated electronics
- Infrared light beam (IR LED 905 nm)
- Switching state indicator (yellow LED)
- Switching frequency typ. 1 kHz
- Scratch-resistant optics
- Oil-resistant cable with PUR sheath
- Sturdy aluminum housing
- Compact design
- Also available with tool plug



### Design

#### Product name:

**FIA-C-06-0.6-5/8-IR-1000**

**FIA-C-06-0.6-5/8-IR-1000-TP** (incl. tool plug TP-M12, s. below)

**FIA-C-06-0.6-5/8-IR-1000-TPO** (incl. tool plug TPO-01, s. below)

#### Apertures:

**0.6** (circular aperture Ø 0.6 mm)

**Fork size:** (cf. dimensions page 3)

**5/8** (fork width A=5 mm, fork depth B=8 mm)

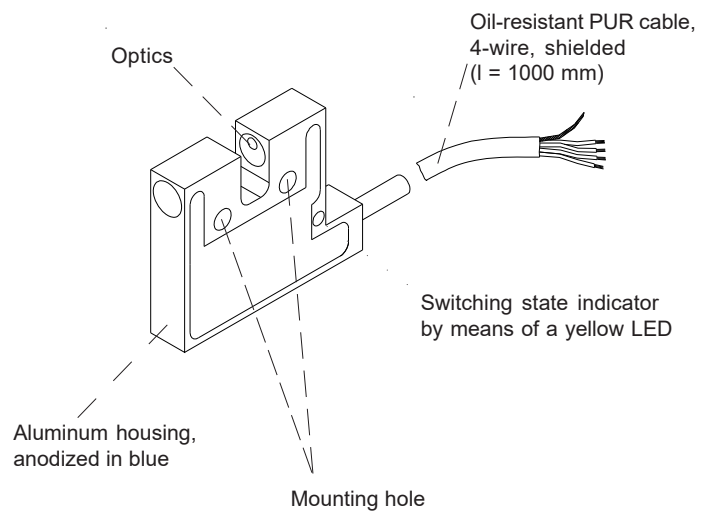
#### Length:

**1000** (cable length = 1000 mm)

#### Also available with tool plug:

**TP** (incl. tool plug TP-M12 with 4-pole M12-connector, fixed to the sensor cable)

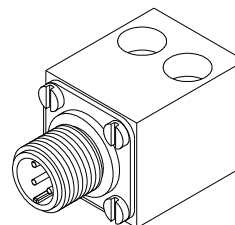
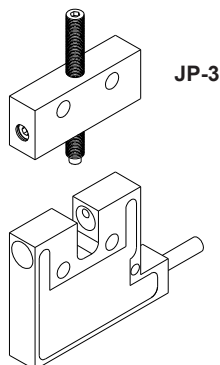
**TPO** (incl. tool plug TPO-01 with 5-pole connector 680, fixed to the sensor cable)



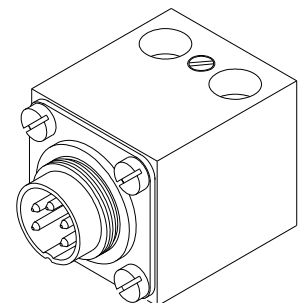
#### Accessories:

(please order separately, cf. page 4)

**JP-3** (jam plate)




**"TP"**  
(tool plug TP-M12)



**"TPO"**  
(tool plug TPO-01)



Technical Data

Type	FIA-C-06-0.6-5/8-IR
Transmitter	IR LED: 905 nm
Min. detectable object	typ. 0.3 mm
Reproducibility	typ. 0.05 mm
Optical filter	Daylight block filter
Voltage supply	+24VDC (± 10%), reverse polarity protected
Ambient light	up to 5000 Lux
Current consumption	typ. 30 mA
Aperture size	Circular aperture Ø 0.6 mm
Switching outputs (2x)	Q = pnp bright-switching (pnp n.c.) / npn dark-switching (nnp n.o.) Qinv = pnp dark-switching (pnp n.o.) / npn bright-switching (nnp n.c.) 100mA, short-circuit protection
Enclosure rating	IP67
Operating temperature range	-20°C ... +50°C
Storage temperature range	-20°C ... +85°C
Housing	Aluminum, anodized in blue
Dimensions	see page 3
Cable type	Cable integrated in the sensor housing: 4-wire, PUR-sheath, shielded, length 1000 mm
EMC test acc. to	DIN EN 60947-5-2 
Switching frequency	typ. 1 kHz
Switching state indicator	by means of a yellow LED integrated in the sensor housing: LED on = sensor free LED off = sensor covered



Connector Assignment


**Cable assignment FIA-C-06-5/8**  
(4-wire cable, PUR-sheath, shielded):

Color:	Assignment:
brown	+Ub (+24VDC ± 10%)
white	Qinv (pnp dark-switching, npn bright-switching)
blue	GND (0V)
black	Q (pnp bright-switching, npn dark-switching)
Shield	Housing

**Connector assignment FIA-C-06-5/8 with TP-M12**  
(4-pole M12 connector):

Pin:	Assignment:
1	+Ub (+24VDC ± 10%)
2	Output Qinv
3	GND (0V)
4	Output Q

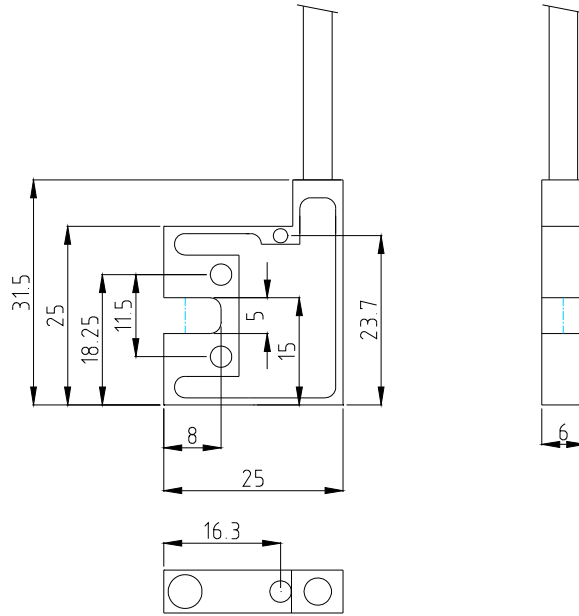
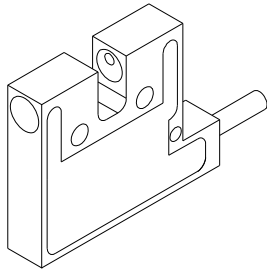
**Connector assignment FIA-C-06-5/8 with TPO-01**  
(5-pole connector Binder 680):

Pin:	Assignment:
1	GND (0V)
2	+Ub (+24VDC ± 10%)
3	Output 
4	n.c.
5	Connection control

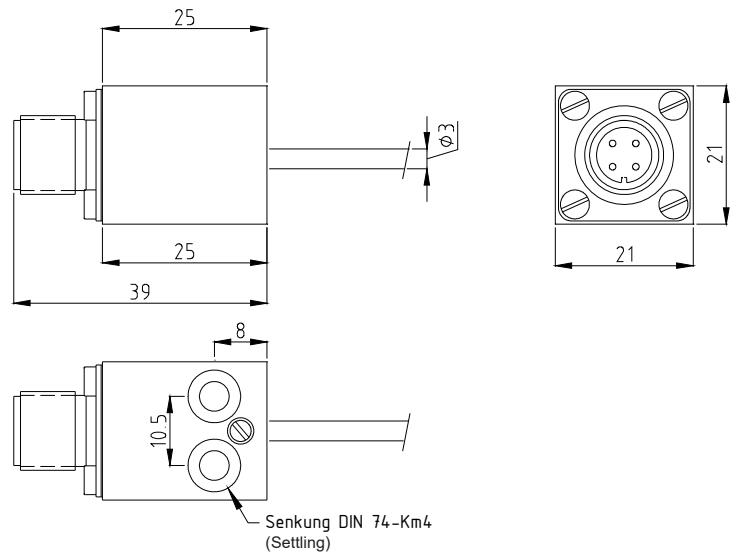
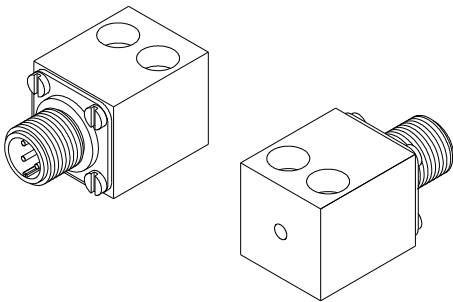


Dimensions

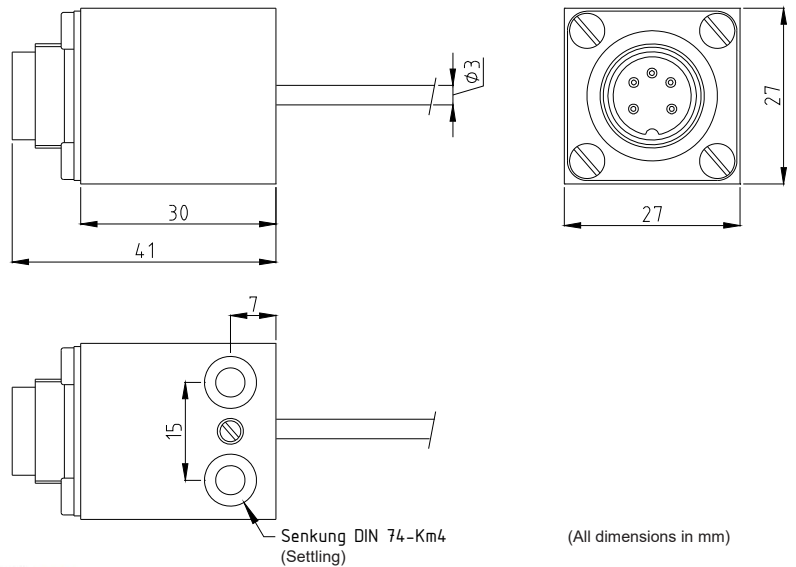
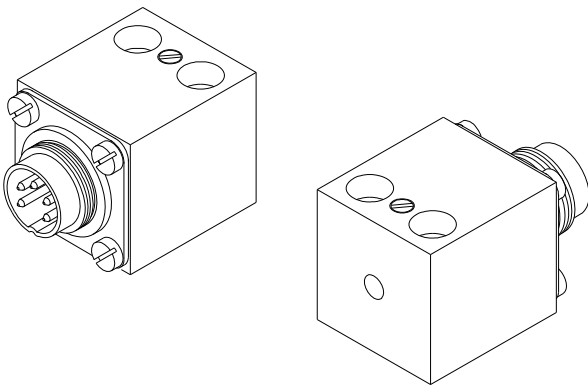
FIA-C-06-0.6-5/8-IR-1000:



Tool plug TP-M12:



Tool plug TPO-01:

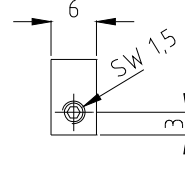
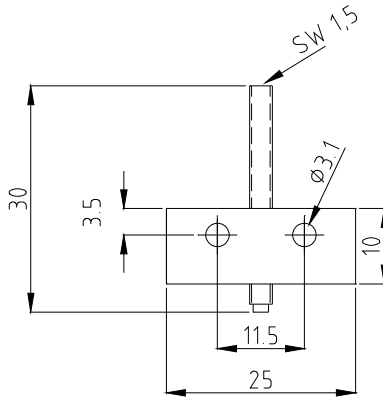
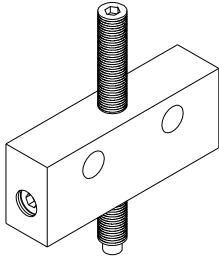


(All dimensions in mm)



Accessories

**Jam plate JP-3:**  
(please order separately).



(All dimensions in mm)