

FIA Series

► FIA-P-08-...

- Integrated electronics
- Infrared light beam (IR LED 905 nm)
- Switching state indicator (yellow LED)
- Switching frequency typ. 10 kHz (when object size > aperture size)
- Scratch-resistant optics
- 4-pole M8-connector
- Sturdy aluminum housing
- Compact design



Design

Product name:

FIA-P-08-(aperture)-(fork size)-IR

Available apertures:

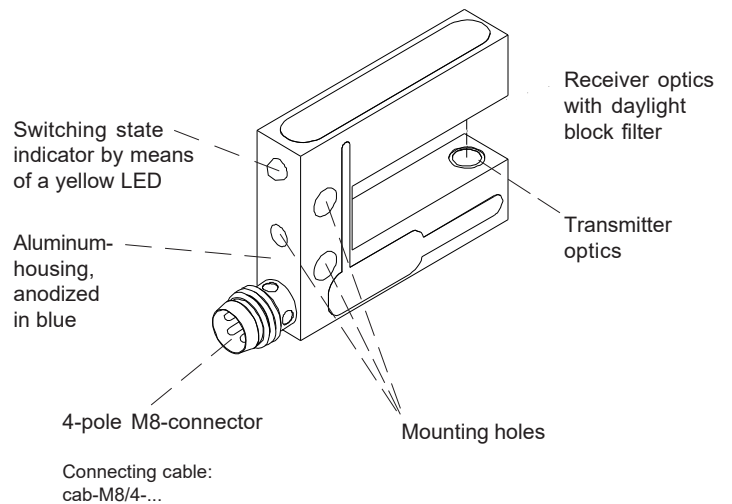
- d0.4** (circular aperture Ø 0.4 mm)
- d0.6** (circular aperture Ø 0.6 mm)
- d0.8** (circular aperture Ø 0.8 mm)
- d1.0** (circular aperture Ø 1.0 mm)
- d1.2** (circular aperture Ø 1.2 mm)

Available fork sizes: (cf. dimensions page 3)

- 10/15** (fork width A=10 mm, fork depth B=15 mm)
- 10/25** (fork width A=10 mm, fork depth B=25 mm)
- 10/30** (fork width A=10 mm, fork depth B=30 mm)
- 20/15** (fork width A=20 mm, fork depth B=15 mm)
- 20/30** (fork width A=20 mm, fork depth B=30 mm)
- 25/50** (fork width A=25 mm, fork depth B=50 mm)
- 25/80** (fork width A=25 mm, fork depth B=80 mm)
- 30/15** (fork width A=30 mm, fork depth B=15 mm)
- 30/30** (fork width A=30 mm, fork depth B=30 mm)
- 40/30** (fork width A=40 mm, fork depth B=30 mm)

Special fork sizes (available as per request):

- 40/40** (fork width A=40 mm, fork depth B=40 mm)
- 40/60** (fork width A=40 mm, fork depth B=60 mm)
- 60/60** (fork width A=60 mm, fork depth B=60 mm)





Technical Data

Type	FIA-P-08-...
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	Ø 0.4 mm / Ø 0.6 mm / Ø 0.8 mm / Ø 1.0 mm / Ø 1.2 mm
Switching output	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
Connector type	4-pole M8-connector
EMC test acc. to	DIN EN 60947-5-2 
Switching frequency	typ. 10 kHz (in case that object size > aperture size)
Switching state indicator	by means of a yellow LED integrated in the sensor housing LED on = sensor free LED off = sensor covered

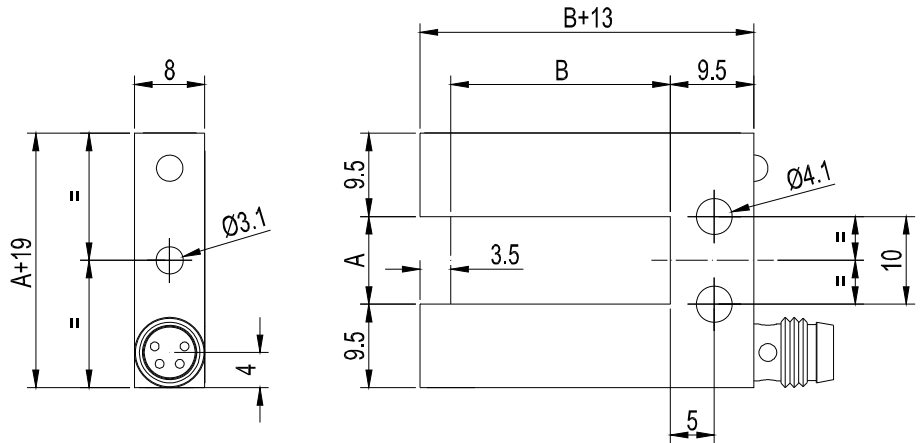
Dimensions

FIA-P-08-...-(fork size)-...:

Fork size	dim. A	dim. B	
10/15	10 mm	15 mm	(housings partly with inner radius R1)
10/25	10 mm	25 mm	(housings partly with inner radius R1)
10/30	10 mm	30 mm	(housings partly with inner radius R1)
20/15	20 mm	15 mm	(housings partly with inner radius R1)
20/30	20 mm	30 mm	
25/50	25 mm	50 mm	
25/80	25 mm	80 mm	
30/15	30 mm	15 mm	
30/30	30 mm	30 mm	
40/30	40 mm	30 mm	

Special fork sizes (as per request):

40/40	40 mm	40 mm
40/60	40 mm	60 mm
60/60	60 mm	60 mm



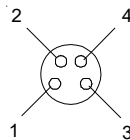
(All dimensions in mm)

Connector Assignment

Pin assignment FIA-P-08:

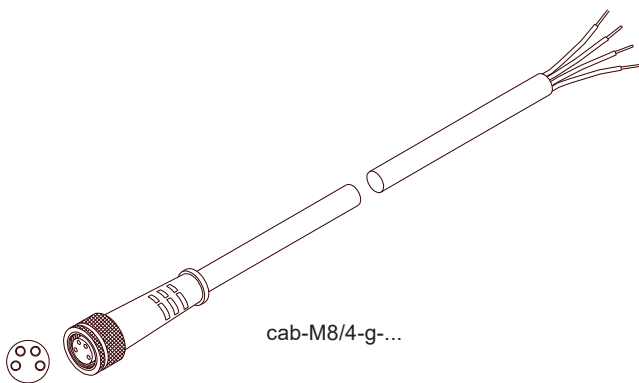
(4-pole M8-connector)

Pin:	Assignment:
1	+Ub (+24VDC ± 10%)
2	Qinv (pnp dark-switching, npn bright-switching)
3	0V (GND)
4	Q (pnp bright-switching, npn dark-switching)

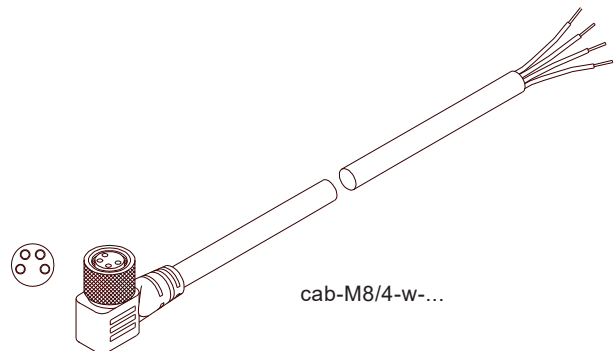


Available connecting cables:

- cab-M8/4-g-2** (l=2m)
- cab-M8/4-g-5** (l=5m)
- cab-M8/4-w-2** (angle type, l=2m)
- cab-M8/4-w-5** (angle type, l=5m)



cab-M8/4-g-...



cab-M8/4-w-...