

**OPTICAL FORK SENSOR SERIES**
**OFS**
**Description**

- 2 mm to 220 mm fork width
- Aluminium housing
- Plug connection
- Infrared or visible red light source
- Sensitivity adjustment via potentiometer
- Switch selectable light or dark function
- Output indicator
- High tolerance to hostile environments
- 10-35 V dc supply voltage
- 3 wire, NPN or PNP output
- Fast response time



The OFS series consists of self-contained optical fork sensors that are housed in a durable, U-shaped aluminium housing which operates in thru-beam mode. The series is available with a wide variety of fork opening widths, ranging from 2 mm to 220 mm.

The complete series is available as a 3 wire, NPN or PNP transistor output with a 10-35 V dc supply voltage. All models offer sensitivity

adjustment via integral potentiometer and are available with switch selectable light or dark function. The complete series offers a high switching frequency of up to 5000 Hz.

The series is protected against reverse polarity of power supplies and output signals. The output is protected against short circuit and inductive loads.

Technical Data		002	005	010	020	030	050	080	120	220	
Supply voltage		10-35 V dc									
Reverse polarity protected		Yes									
Short circuit protected		Yes									
Current consumption		Max. 35 mA									
Maximum output load		200 mA									
Resolution		0.4 mm									
Operation frequency		2500 Hz			5000 Hz				2500 Hz		
Response time ton / toff		0,2 ms / 0,2 ms			0,1 ms / 0,1 ms				0,2 ms / 0,2 ms		
Output indicator		Yellow LED									
Hysteresis		< 0,2 mm									
Light source	OFS	Infrared (880 nm)									
	OFSR	Visible red (660 nm)									
Fork opening width		2 mm	5 mm	10 mm	20 mm	30 mm	50 mm	80 mm	120 mm	220 mm	
Housing material	Fork housing	Aluminium (black anodised)									
	Lens cover	Glass									

Environmental Data	
Vibration	10 - 55 Hz, 0,5 mm
Shock	10 g
Light immunity, @ 15° incidence	> 50 000 lux
Temperature, operation	- 20 to +60 °C
Temperature, storage	- 40 to +80 °C
Sealing Class	IP 67
Approvals	CE

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Available Types							
Type	Fork opening size		Control Feature	Light source		Infrared	Visible Red
	Width	Depth		Output			
OFS 002	2 mm	40 mm	Sensitivity pot. and light/dark switch	NPN	NO/NC	OFS 002 N3S T3	OFSR 002 N3S T3
				PNP	NO/NC	OFS 002 P3S T3	OFSR 002 P3S T3
OFS 005	5 mm	17 mm	Sensitivity pot.	NPN	NC	OFS 005 N1S T3	-
					NO	OFS 005 N2S T3	-
				PNP	NC	OFS 005 P1S T3	-
					NO	OFS 005 P2S T3	-
OFS 010	10 mm	17 mm	Sensitivity pot.	NPN	NC	OFS 010 N1S T3	-
					NO	OFS 010 N2S T3	-
				PNP	NC	OFS 010 P1S T3	-
					NO	OFS 010 P2S T3	-
OFS 020	20 mm	25 mm	Sensitivity pot.	NPN	NC	OFS 020 N1S T3	OFSR 020 N1S T3
					NO	OFS 020 N2S T3	OFSR 020 N2S T3
				PNP	NC	OFS 020 P1S T3	OFSR 020 P1S T3
					NO	OFS 020 P2S T3	OFSR 020 P2S T3
OFS 030	30 mm	35 mm	Sensitivity pot. and light/dark switch	NPN	NO/NC	OFS 030 N3S T3	OFSR 030 N3S T3
				PNP	NO/NC	OFS 030 P3S T3	OFSR 030 P3S T3
OFS 050	50 mm	55 mm		NPN	NO/NC	OFS 050 N3S T3	OFSR 050 N3S T3
				PNP	NO/NC	OFS 050 P3S T3	OFSR 050 P3S T3
OFS 080	80 mm	55 mm		NPN	NO/NC	OFS 080 N3S T3	OFSR 080 N3S T3
				PNP	NO/NC	OFS 080 P3S T3	OFSR 080 P3S T3
OFS 120	120 mm	60 mm		NPN	NO/NC	OFS 120 N3S T3	OFSR 120 N3S T3
		205 mm		PNP	NO/NC	OFS 120 P3S T3	OFSR 120 P3S T3
OFS 220	220 mm	110 mm		NPN	NO/NC	OFS 120-205 N3S T3	OFSR 120-205 N3S T3
				PNP	NO/NC	OFS 120-205 P3S T3	OFSR 120-205 P3S T3
				NPN	NO/NC	OFS 220 N3S T3	OFSR 220 N3S T3
				PNP	NO/NC	OFS 220 P3S T3	OFSR 220 P3S T3

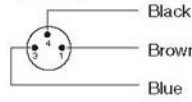
Note: Different size models are available upon request.

Connections	
	M8 Plug / Cable
Supply +	Pin 1 / Brown
Supply -	Pin 3 / Blue
Output	Pin 4 / Black

**3 pin, M8**



Sensor Plug (Male)

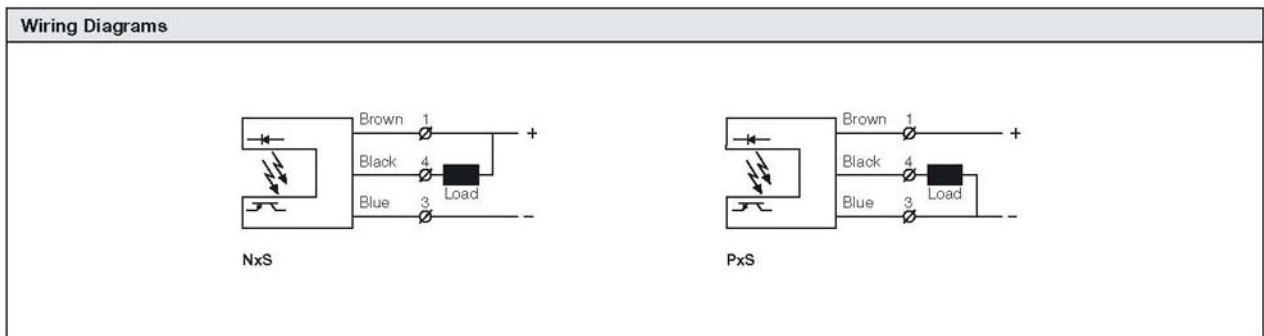


Cable Plug (Female)

Black

Brown

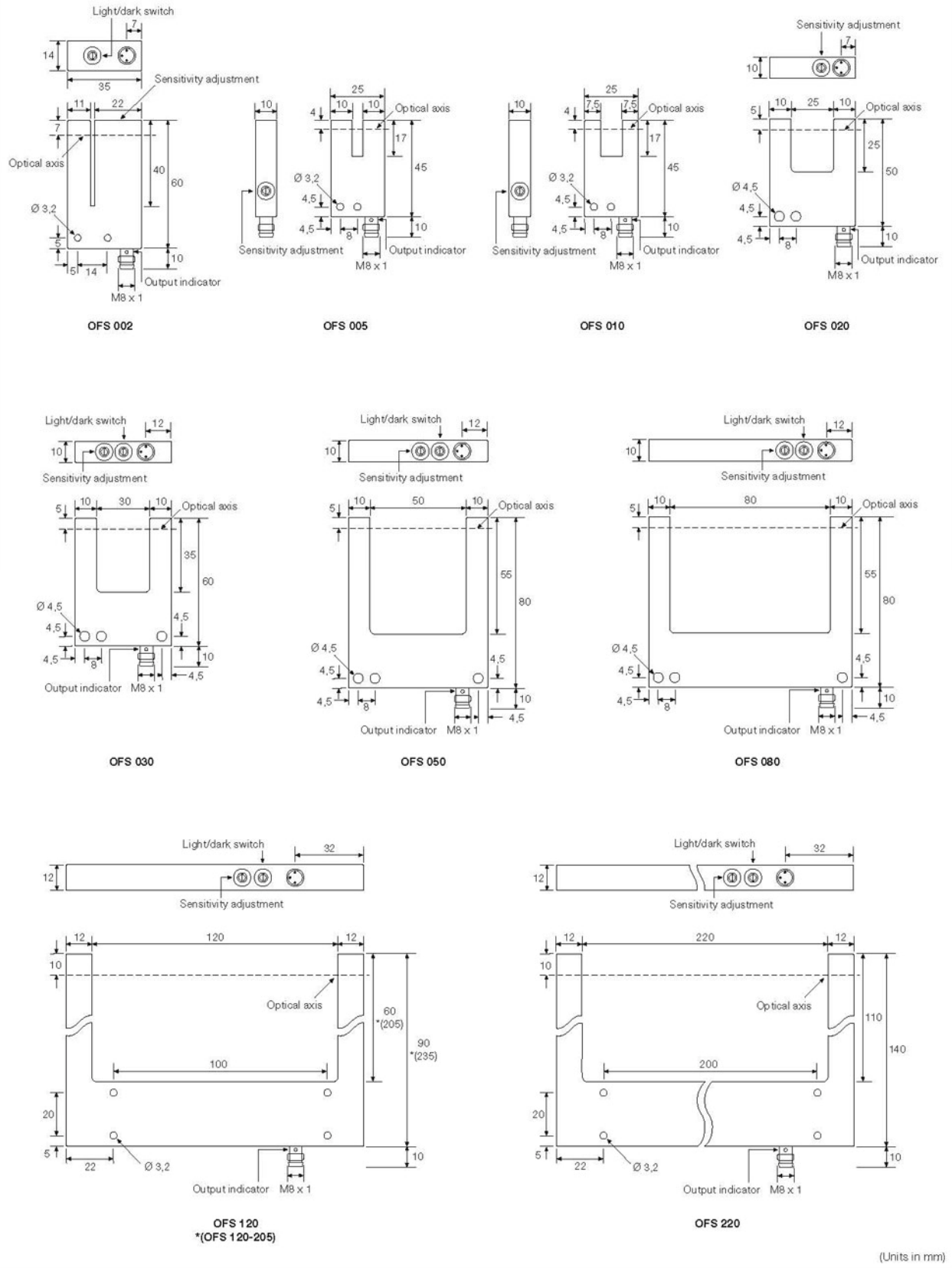
Blue



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**Dimensions and Descriptions**



(Units in mm)

