



FS1 series

Cubic amplifier
unit for optical fibres - DC



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features

- Extremely reduced dimensions amplifier units (only 49 x 26 x15 mm)
- Right angle cable exit or M12 plug cable for reducing the overall dimensions at minimum
- Trimmer for sensivity adjustment
- NPN or PNP outputs with selectable NO/NC
- Red light beam with visible spot
- Wide range of optical fibres (plastics and glass)
- Complete protection against electrical damage
- Fixing with M4 screws (2xM4, 20 mm step)



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code description

						FS1	/	0	N	-	C
series	FS1	Amplifier unit for optical fibres									
type	0	NO/NC output selectable									
NPN / PNP output	N	NPN output									
	P	PNP output									
cable / plug output	C	90° cable exit 2 m									
	E	90° M12 plug exit									

available models

dimensions (mm)	series	DIN rail	adjustment	exit	PNP	NPN
					NO / NC	NO / NC
15 x 26 x 67	FS1	-	trimmer	cable	FS1/0P-C	FS1/0N-C
				M12	FS1/0P-E	FS1/0N-E

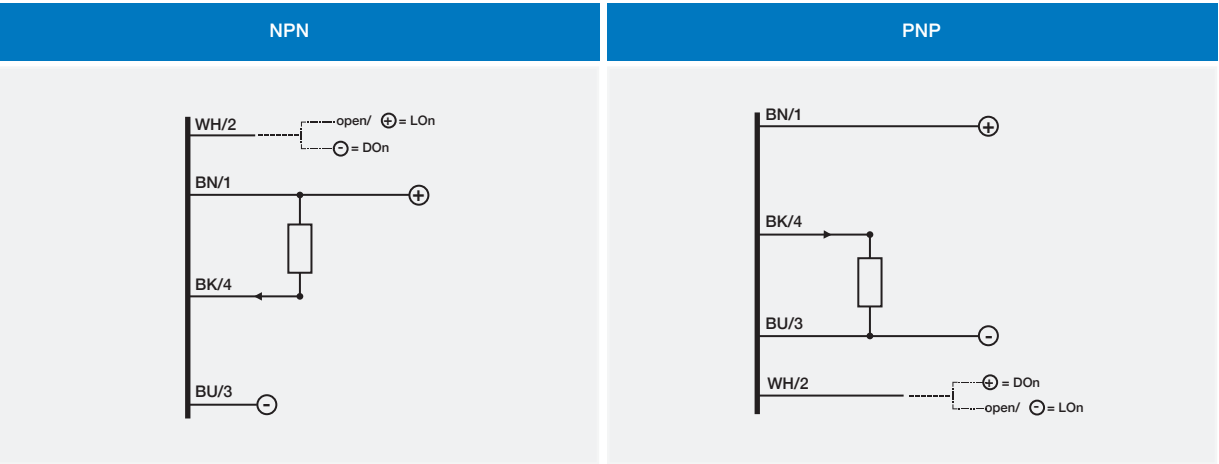


technical specification

	FS1/0*-*
sensing distance	see optical fibres table
emission	red (660 nm)
operating voltage	10...30 Vdc
ripple	≤ 10 %
no-load supply current	100 mA
load current	30 mA
voltage drop	1.2 V max
output type	NPN or PNP - NO / NC selectable
switching frequency	1 kHz
power on delay	200 ms
power supply protections	polarity reversal, transient
output electrical protections	short circuit (autoreset)
sensitivity adjustment	1 turn trimmer
temperature range	- 25°C...+ 70°C (without freeze)
external ligh interference	3,000 lux (incandescent lamp) 10,000 lux (sunlight)
protection degree	IP65 (EN60529) ⁽¹⁾
LEDs	red (output NO energized)
housing material	Polyamide
optic material	depending by optical fibres
weight (approximate)	50 g connector / 120 g cable (20 g mount bracket)

⁽¹⁾ Protection guaranteed only with plug cable well mounted.

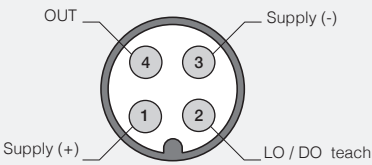
electrical diagrams of the connections



Maximum admissible capacity C=0,2µF, for maximum output voltage and current.
IndicationsNO and NC are referred to the diffuse reflection optical fibres (on target absence).
For retro-reflective and through-beam models the indication NO to be replaced by NC and NC becomes NO.



M12



dimensions (mm)

FS1/0*-C	FS1/0*-E
Technical drawing of the FS1/0*-C connector showing dimensions in mm. The main body is 49 mm long and 26 mm high. The connector is 17.5 mm wide. The mounting bracket is 4.7 mm high. The mounting holes are M3. The mounting distance is 15 mm. The mounting hole diameter is 2.6 mm. The mounting hole offset is 20 mm. The mounting hole offset is 2.2 mm.	Technical drawing of the FS1/0*-E connector showing dimensions in mm. The main body is 49 mm long and 26 mm high. The connector is 17.5 mm wide. The mounting bracket is 18 mm high. The mounting holes are M3. The mounting distance is 15 mm. The mounting hole diameter is 2.6 mm. The mounting hole offset is 20 mm. The mounting hole offset is 2.2 mm.