



# FS1 series

Cubic amplifier  
unit for optical fibres - DC



## 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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Cubic amplifier  
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## code description

FS1 / 0 N - C

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

## available models

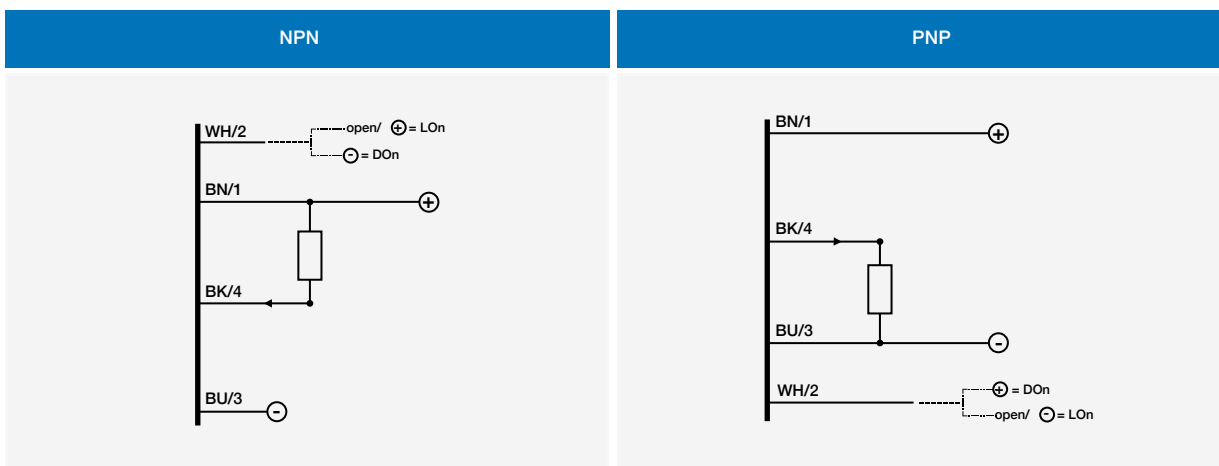
dimensions (mm)	series	DIN rail	adjustment	exit	PNP	NPN
					NO / NC	NO / NC
15 x 26 x 67	FS1	-	trimmer	cable	FS1/0P-C	FS1/0N-C
				M12	FS1/0P-E	FS1/0N-E



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 lighth interference	3,000 lux (incandescent lamp) 10,000 lux (sunlight)
protection degree	IP65 (EN60529) <sup>(1)</sup>
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)

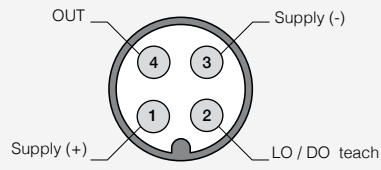
<sup>(1)</sup> Protection guaranteed only with plug cable well mounted.

### 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)

