

# Optical fiber amplifier **FD1** series

## Features

- ◆ Sensing distance can be set by key(Self learning);
- ◆ Stability indicator;
- ◆ Light on/Dark on optional;
- ◆ Output can be set, NO delay or OFF delay 100ms;
- ◆ Reverse polarity protection, shock protection, overland protection and short-circuit protection.



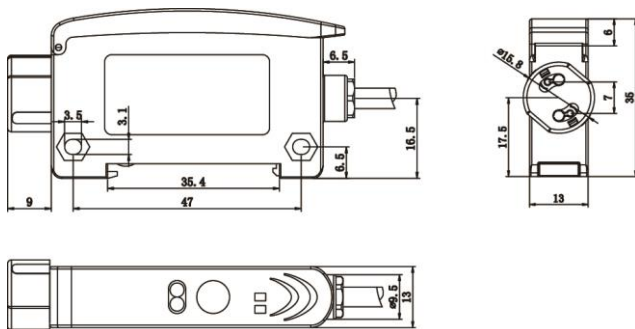
## Part number

NPN+PNP L.ON/D.ON FD1-NPR

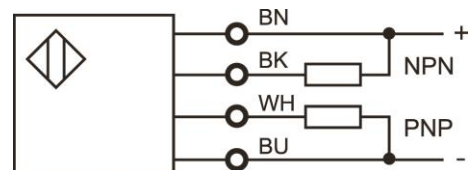
## Technical specifications

Limiting voltage	DC 10-30V	Distance regulation	Key
Fluctuation voltage	<10%	Response time	<1m
Current consumption	<40mA	Temperature drift	<10%
Leak current	<0.1mA	Ambient temperature	0°C~50°C
Output mode	NPN+PNP; L.ON/D.ON Dial switch optional	Light source	Visible red light
Power Supply Protection	Polarity protection, shock protection	Dielectric property	<0.2mA (500VAC, 60s)
Output protection	Overload protection, short-circuit protection	Repeated accuracy	<5%
Voltage drop	<2.5V (@I <sub>LOAD</sub> =100mA)	Protection degree	IP54
Rated load current	100mA	Connection	2m PVC cable
Min load current	1mA	Housing material	PC+ABS
Hysteresis	3%-20%		
Anti-vibration	Amplitude: 1mm; Frequency: 10~55Hz; Sweep frequency cycle: 5min)		
Anti-shock	Shock (Impulse) wave shape: Half sine; Peak speed: 30g <sub>r</sub> ; Pulse duration: 11ms		
Efficient operation distance	1~80mm(90% reflective rate, 100*100mm white card, with fiber cable PRC-610 for test )		
Indicator display	Output indicator; power indicator; stability indicator, short-circuit/overland indicator, setting indicator		
Output delay	There are two ways for setting: NORM; OFF delay 100ms		
EMC-ESD	±4kV CD/±8kV AD (IEC61000-4-2)		
EMC-Burst	±2kV 5kHz (IEC61000-4-4)		
EMC-HF radiated/conducted	3V/m (IEC61000-4-3) /3V (IEC61000-4-6)		

## Dimensions



## Wiring diagram









## Fiber head PFR series



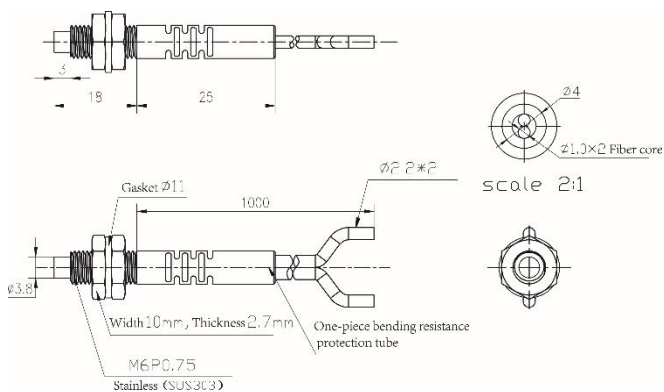
### Features

- ◆ Standard threaded mounting, easy and convenient;
- ◆ Made of stainless steel, with high durability;
- ◆ Suitable for installation in narrow spaces, with high detection accuracy.

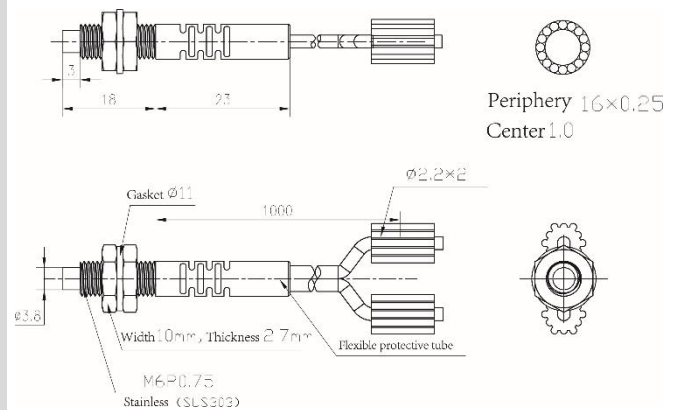
### Diffuse reflection

Item code	Size	Shape	Min bending radius	Sensing distance (mm)	Min detected target (mm)
PFR-610	M6		R25	100	φ0.2
PFRC-610	M6		R25	90	φ0.1
PFRD-410	M4		R15	60	φ0.1
PFRC-410	M4		R15	40	φ0.1
PFRD-310	M3		R15	40	φ0.1
PFRC-310	M3		R15	40	φ0.05

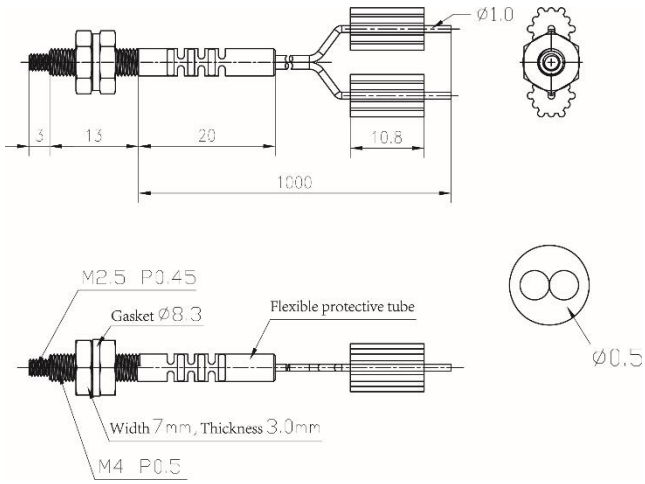
### Dimension: PFR-610



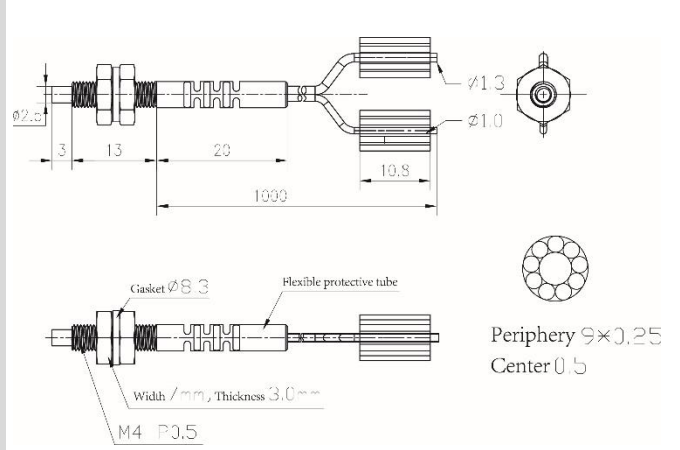
### Dimension: PFRC-610



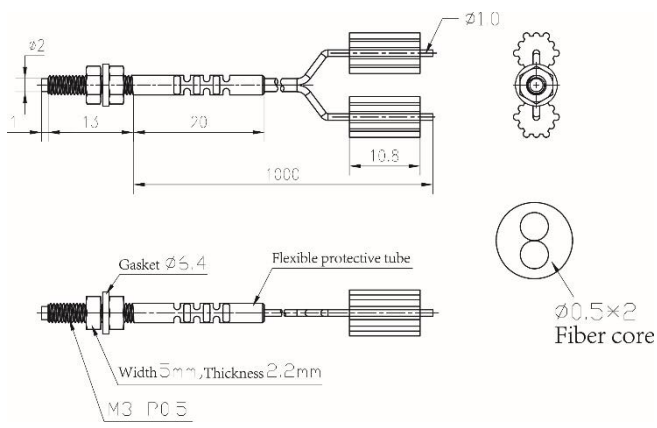
**Dimension: PFRD-410**



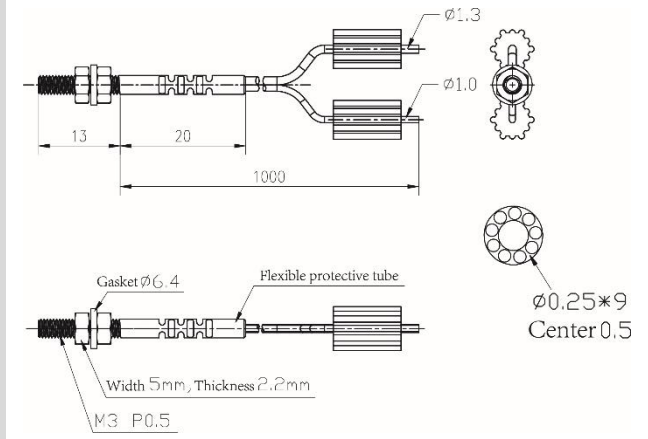
**Dimension: PFRC-410**



**Dimension: PFRD-310**



**Dimension: PFRC-310**



Fiber head **PFT** series



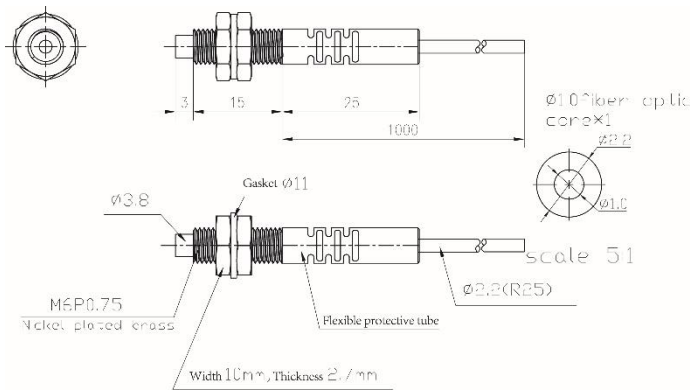
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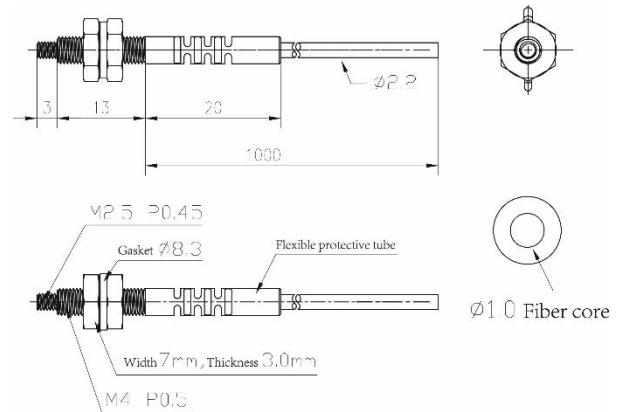
Through beam

Item code	Size	Shape	Min bending radius	Sensing distance (mm)	Min detected target (mm)
<b>PFT-610</b>	M6		R25	280	φ0.5
<b>PFT-410</b>	M4		R25	250	φ0.5
<b>PFT-310</b>	M3		R25	200	φ0.5

Dimension: PFT-610



Dimension: PFT-410



Dimension: PFT-310

