

Specifications

SUPPLY VOLTAGE & CURRENT

- 12-24 Vdc±10%
- 40mA @ 12Vdc
- Reverse polarity protected
- Transient spike protected

OUTPUT

- NPN or PNP (dependent on model)
- 100mA output current
- Short circuit & transient spike protected
- NPN = Saturation voltage: 0.4Vdc @16mA < 1.0Vdc @50mA
- PNP = Saturation voltage: 1.0Vdc @16mA < 2.0Vdc @100mA

RESPONSE TIME (Dependent on Mode)

- Standard – 1ms
 - Long Range – 2ms
 - Fast – 300µs
 - High Speed – 100µs
- Note: High Speed Mode not useful at close range; values over 400 may cause chatter

REPEATABILITY

- 100µs

MAXIMUM RANGE

Mode	Proximity	Through-Beam
High	11.0in, 280mm	19.2in, 488mm
Fast	18.0in, 458mm	38.4in, 975mm
Standard	20.0in, 512mm	43.2in, 1097mm
Long	21.5in, 549mm	46.1in, 1170mm

Note: Opposed tests utilized: PF-Z-78TL
Proximity tests utilized: PFD-Z-78M64

DISPLAY

- Two 4-digit display values: threshold (green); signal (red).

LIGHT IMMUNITY

- High immunity to most ambient light, including high efficiency lighting and high intensity strobes.
- 2000lx (sunshine), 1000lx (incandescent)

EMITTER LIGHT SOURCE

- RED 635nm
- Light source power can be adjusted via button 100%, 50%, 25%, 12%.

LED INDICATORS

- Output: Red LED.. Illuminates when output is ON.

CONNECTIONS

- M8, 3-pin
- Attached cable: 3-wire 6.5ft (2.0m)

OPERATING TEMPERATURE

- -10°C to 50°C (14°F to 122°F) Operational
- -20°C to 70°C (-4°F to 158°F) Storage

HUMIDITY

- 35~85%RH, storage: 35~85%RH

HOUSING CONSTRUCTION

- Chemical resistant, high-impact polycarbonate PC+ABS

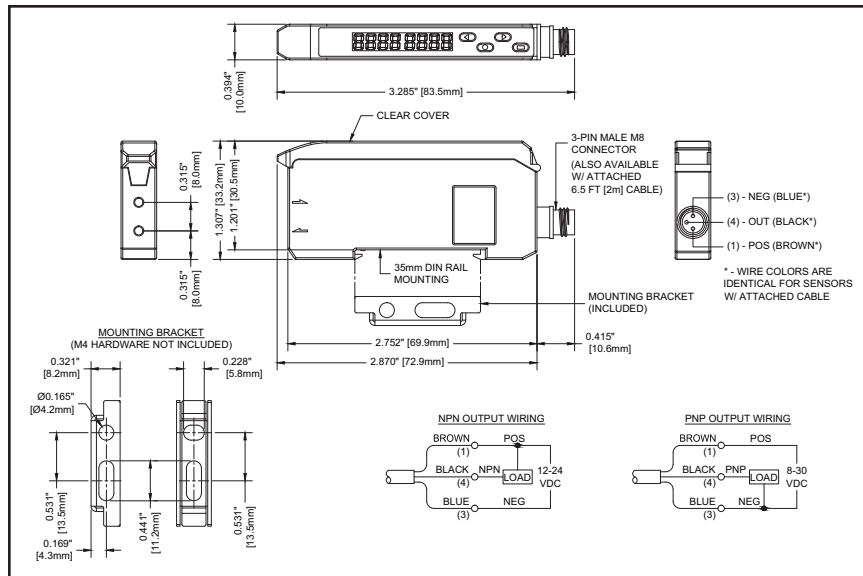
RATINGS & CERTIFICATIONS

- IP64
- CE



RoHS Compliant
Product subject to change without notice

Dimensions



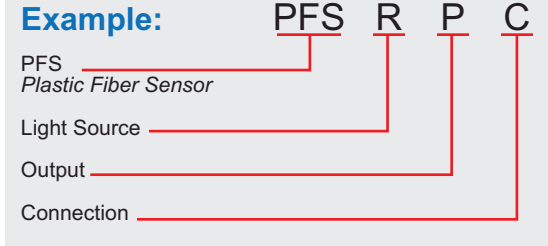
PFS - Instructions



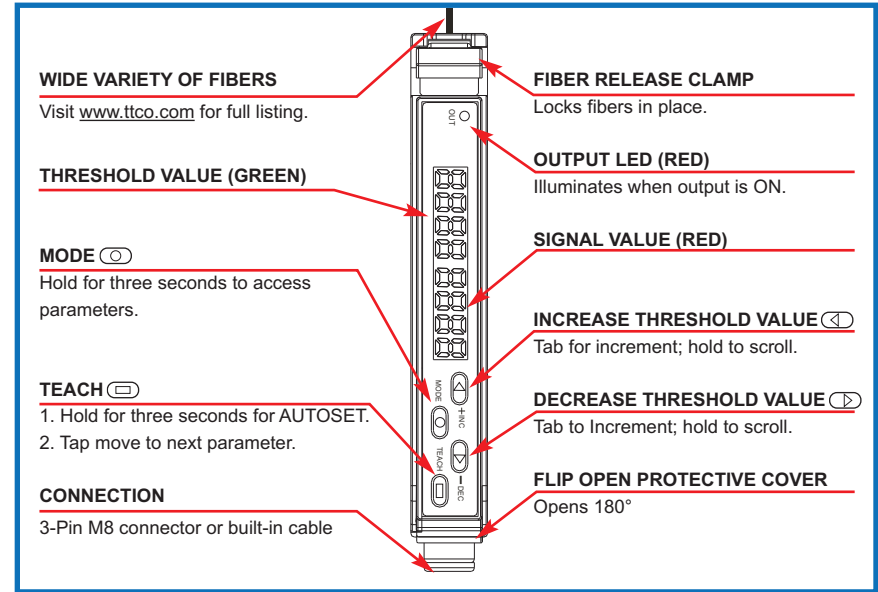
How To Specify

- Select Sensor:** PFS
Plastic Fiber Sensor
- Select Light Source:** R = Red
- Select Output:** P = PNP
N = NPN
- Select Connection:** Blank = 6ft cable (1.8m)
C = 3-pin M8 connector

Example:



Features

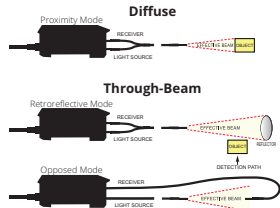


Quick Start

1. Establish one of the following conditions:

Diffuse: Reflect light off object.

Through-Beam: Remove object from light beam path.

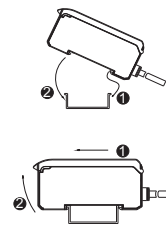


Programming will time out after five seconds if no action is taken.

2. Press **TEACH** button:

Pressing the TEACH button sets the sensors threshold to the desired level.

3. Verify setup. If needed, the threshold can be altered by tapping up or down.



Mounting on a DIN Rail

1. Hook the DIN rail clip on the bottom of the sensor under the edge of the DIN rail.

2. Gently push and pivot the sensor onto the DIN rail, pressing until it snaps into place.

Installing the Fibers

1. Open the dust cover.
2. Move the fiber clamp forward to unlock it.
3. Insert the fiber(s) into the fiber port(s) until they stop.
4. Move the fiber clamp backward to secure the fiber(s).
5. Close the dust cover.

Range	Mode	Proximity	Through-Beam
	High	11.0in, 280mm	19.2in, 488mm
	Fast	18.0in, 458mm	38.4in, 975mm
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Caution

- Ensure power is off before connecting device.
- When encountering noising power supply environments, ground sensor's negative wire to chassis ground.
- Power-on delay is 500ms.
- Avoid excessive capacitive loads.
- Avoid routing cable near high voltage wiring.
- Keep away from dust, dirt, and vapor.
- Do not allow direct contact with water, oil, grease, or organic solvents, such as thinners.

Accessing Parameters

Press and hold MODE button for three seconds until "SEL" appears.

1. Enter Parameter Mode

SEL 1 234

Press TEACH to access next parameter.

2. Manual Threshold Value

1634 1234

Tap up or down to adjust. Hold to scroll.

3. Detect Mode

NO 0 1234

Choose "Normally Open" or "Normally Closed".

NO 0 Normally Open Output - Light On

NC 0 Normally Closed Output - Dark On

4. Output Delay

0 1234

0 No delay

5 Delay 5ms

50 Delay 50ms

500 Delay 500ms

5000 Delay 5s

5. Emitter Brightness Control

L 100 1234

L 100 Emitter brightness 100%

L 50 Emitter brightness 50%

L 25 Emitter brightness 25%

L 12 Emitter brightness 12%

Note: Emitter LED power: Higher = Boosts power for long range; Lower = Cuts power to prevent saturation.

6. Response Time

Lon9 1234

Lon9 2ms = Long Range

SEnd 1ms = Standard Range

FRSL 300µs = Fast Speed

H,9h 100µs = High Speed

7. Delay Mode

0 0 1234

Choose Through-Beam (two fibers) or Diffuse (bifurcated fiber).

0 0 1234 Diffuse mode

L 0 1234 Through-beam mode

8. Quit

End 0

Quit Parameter MODE.

At anytime to go to top.

Factory Reset

Press both adjusts buttons to reset to default value.