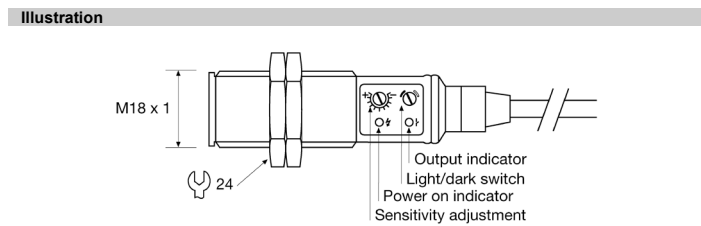


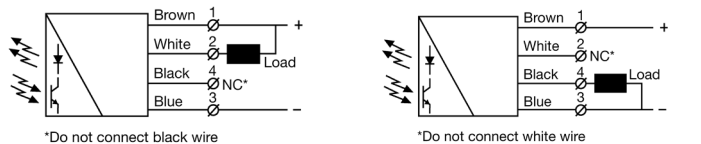
Product Data	
<b>Electrical Data</b>	
Supply Voltage	10-30 V dc
Voltage ripple	+/- 15%
Reverse polarity protected	Yes
Short circuit protected	Yes
Current consumption	20 mA
Max. output load	120 mA / 30 V dc
<b>Environmental Data</b>	
Temperature, operation	-20 to +60 °C
Sealing class	IP 67
Approvals	

Available Models					
	Model	Supply Voltage	Output	Output Mode	Sensing Range
Fibre Sensor	SMPF 7600	10-30 V dc	NPN/PNP	Light/dark	Dependent of fibre optics



**Connection**

**Wiring Diagrams**



SMPF 7600 Load as NPN	SMPF 7600 Load as PNP
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Connection Wires/Pins	Cable	4 pin, M8 plug	4 pin, M12 plug
Supply +	Brown	Pin 1	Pin 1
Supply -	Blue	Pin 3	Pin 3
Output	White	Pin 2	Pin 2
Output	Black	Pin 4	Pin 4

	Sensor plug	Sensor plug

**Mounting & Installation**

**Mounting & Alignment Steps for Thru Beam**

- Select the appropriate fibre optic cables for your application.
- Mount the fibre optic adaptor by screwing on the threaded nut onto the front of the sensor.
- Position the fibre optic tips facing each other.
- Align by moving fibre optic tips horizontally and vertically until the output mode is correct when no object is present.
- Fasten the sensor securely using the enclosed locking nuts and/or a mounting bracket, and fasten the fibre optic tips securely using mounting brackets (not included). Avoid acute angles on cable close to sensor.

**Mounting & Alignment Steps for Diffuse Proximity**

- Select the appropriate fibre optic cables for your application.
- Mount the fibre optic adaptor by screwing on the threaded nut onto the front of the sensor.
- Position the fibre optic tip pointing at the target object.
- Align by moving fibre optic tip horizontally and vertically until the output mode is correct when object is present.
- Fasten the sensor securely using the enclosed locking nuts and/or a mounting bracket, and fasten the fibre optic tip securely using a mounting bracket (not included). Avoid acute angles on cable close to sensor.

**Adjustments**

**Output Mode Selection**

The output mode can be selected via an integral light/dark switch. Refer to Output Logic table for reference.

Light Operated	Turn switch to full clockwise position
Dark Operated	Turn switch to full counter clockwise position

**Output Logic for Thru Beam**

Detection	Output Mode	Output status	Yellow LED
Object absent 	Dark operated (N.O.)	Open	Off
	Light operated (N.C.)	Closed	On
Object present 	Light operated (N.C.)	Open	Off
	Dark operated (N.O.)	Closed	On

**Output Logic for diffuse proximity**

Detection	Output mode	Output status	Yellow LED
Object present 	Dark operated (N.C.)	Open	Off
	Light operated (N.O.)	Closed	On
Object absent 	Light operated (N.O.)	Open	Off
	Dark operated (N.C.)	Closed	On

**Sensitivity Adjustment**

Maximum sensitivity can be used for most applications and is advised for applications with contaminated environments. Increase the sensitivity to maximum by turning the potentiometer to full clockwise position.

**For Thru Beam**

Sensitivity adjustment may be required in applications where objects to be detected are small or translucent. Proceed with the following steps:

- Start with the sensitivity at maximum by turning the potentiometer to full clockwise position.
- Select target object with smallest dimensions and most translucent surface.
- Place target object between fibre optic tips.
- Decrease the sensitivity by turning the potentiometer counter clockwise until the output changes.
- Remove target object. Check output has changed.

**For diffuse proximity**

Sensitivity adjustment may be required in applications where objects to be detected have highly reflective, dark or textured surfaces and/or applications where a background is present. Proceed with the following steps:

- Start with the sensitivity at minimum by turning the potentiometer to full counter clockwise position.
- Select target object with the smallest dimensions and least reflective surface.
- Place target object in front of fibre optic tip.
- Increase the sensitivity by turning the potentiometer clockwise until the target object is detected and the output changes (Position 1). If the output has not changed attempt to move fibre optic tip closer to target object and then repeat procedure.
- If there is a background proceed to step 7.1. If there is no background proceed to step 6.
- Turn the potentiometer clockwise to a position midway between Position 1 and maximum clockwise position.
- 1 Remove target object. If the output changes to step 7.2. If the output has not changed, a background is detected. Proceed to step 7.4
- 2 Turn the potentiometer clockwise until the output status has changed (Position 2). A background is now detected.
- 3 Turn the potentiometer counter clockwise to a position midway between Position 1 and Position 2. Observe the output status has changed.
- 4 If the background is still detected and the output has not changed, attempt to angle the sensor in relation to the plane of the background. Then repeat procedure from step 1.



**Warning**  
 This device is not to be used for Personnel Protection in Machine Guarding Safety applications. This device does not include the self-checking redundant circuitry necessary to allow its use in personnel machine guarding stand-alone safety applications.