

## Datasheet

Low cost self-contained sensors for use with plastic fiber optics



- Low-cost, 10 V dc to 30 V dc, self-contained sensors for use with all Banner plastic fiber optics
- Compact 11 mm-wide housing designed for DIN rail mounting; also mounts to other surfaces using the supplied mounting bracket
- Choice of NPN (sinking) or PNP (sourcing) complementary outputs—one normally open and one normally closed; 150 mA output load rating
- Normally-closed output may be wired as a diagnostic alarm to alert personnel to marginal sensing conditions<sup>1</sup>
- Fast, 500 microsecond (0.5 millisecond) output response
- LED status indications for power ON, output overload, fiber alignment, and marginal gain conditions
- Choose models with integral 2 m (6.5 ft) cable or pico-style quick disconnect (QD) connector; 9 m (30 ft) cables are also available



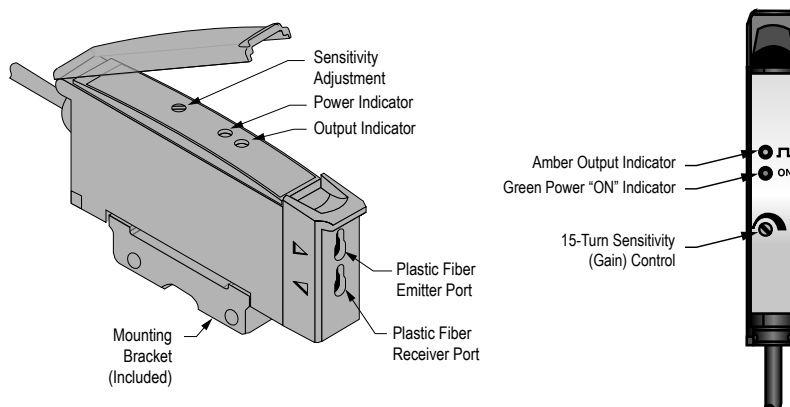
### WARNING: Not To Be Used for Personnel Protection

Never use this device as a sensing device for personnel **protection**. Doing so could lead to serious injury or death. This device does not include the self-checking redundant circuitry necessary to allow its use in personnel safety applications. A sensor failure or malfunction can cause either an energized or de-energized sensor output condition.

## Models

Models	Range	Connection <sup>2</sup>	Supply Voltage	Output Type
D11SN6FP	Range varies by sensing mode and fiber optics used	2 m (6.5 ft)	10 V dc to 30 V dc	Complementary NPN (sinking)
D11SN6FPQ		4-pin Pico QD		
D11SP6FP		2 m (6.5 ft)		Complementary PNP (sourcing)
D11SP6FPQ		4-pin Pico QD		

## Features



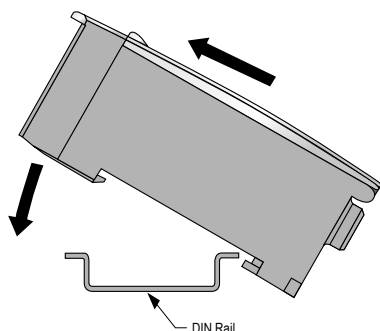
<sup>1</sup> U.S. Patent #5087838

<sup>2</sup> To order the 9 m (30 ft) PVC cable model, add the suffix "W/30" to the cabled model number. For example, D11SN6FP W/30. Models with a quick disconnect require a mating cordset.



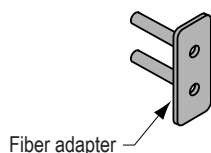
## Installation

Mount the D11 on a DIN rail or the included bracket.



## Installing Plastic Fibers

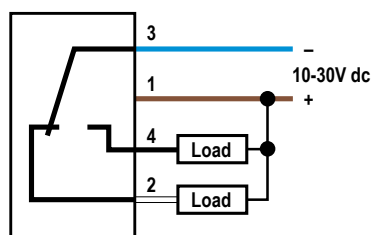
1. Cut the fiber ends according to the instructions included with the fibers.
2. Slide the fiber gripper up (open).
3. If you are using 0.254 mm or 0.508 mm (0.010 inch or 0.020 inch) diameter fibers: Insert the adaptor into the ports as far as it will go.



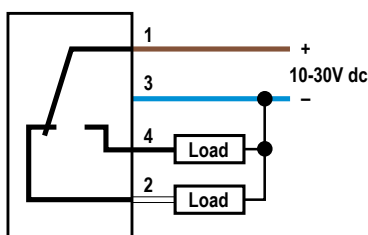
4. For all fiber diameters: Insert the prepared plastic fiber sensor ends gently into the ports as far as they will go.
5. Slide the fiber gripper back down to lock it.

## Wiring Diagrams

NPN Outputs—Standard Wiring

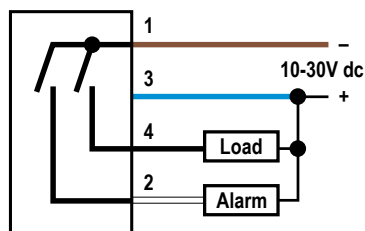


PNP Outputs—Standard Wiring

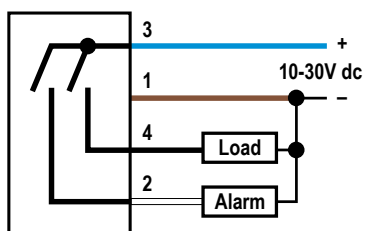


Key  
 1 = Brown  
 2 = White  
 3 = Blue  
 4 = Black

NPN Outputs—Alarm Wiring



PNP Outputs—Alarm Wiring



Quick disconnect (QD) wiring diagrams are functionally identical.