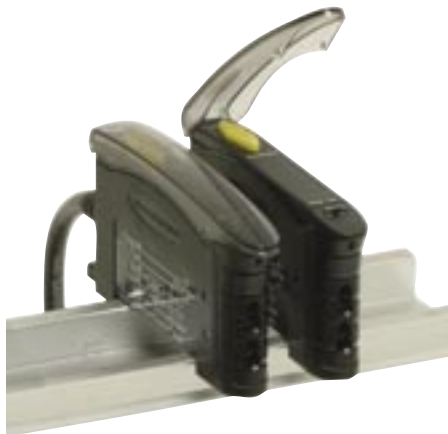




D10 Expert™ – Dual Discrete Outputs

Advanced sensor for use with plastic fiber optics



Features

- Easy-to-set automatic *Expert*-style TEACH options* including static, dynamic, and single-point programming plus manual adjustment for fine-tuning
- 16-bit microcontroller and 12-bit Analog-to-Digital converter for high-performance, low-contrast sensing
- Easy-to-read 4-digit display for TEACH and signal strength readout, plus indicators for a continuous readout of operating status (user configurable)
- Two discrete outputs, PNP or NPN
- Four-mode power and speed selection with automatic cross-talk avoidance circuitry
- Selectable OFF-delay options
- Gate input wire can be used to selectively inhibit sensor outputs from switching
- Models available with visible red (680 nm) or visible green (525 nm) sensing beam
- Models available with 2 m or 9 m (6.5' or 30') cable or integral Pico-style quick-disconnect
- Sleek, ultra-slim 10 mm housing, mounts to a standard 35 mm DIN rail

* U.S. Patent #5,808,296


Models

Models		Cables*	Discrete Outputs
Red Beam	Green Beam		
D10DNFP	D10DNFPG	2 m (6.5') Cable	NPN
D10DNFPQ	D10DNFPGQ	6-pin Pico-style QD	
D10DPFP	D10DPFPG	2 m (6.5') Cable	PNP
D10DPFPQ	D10DPFPGQ	6-pin Pico-style QD	

* 9 m (30') cables are available by adding suffix "W/30" to the model number of any cabled sensor (e.g., **D10DNFP W/30**). A model with a QD connector requires a mating cable (see page 12).

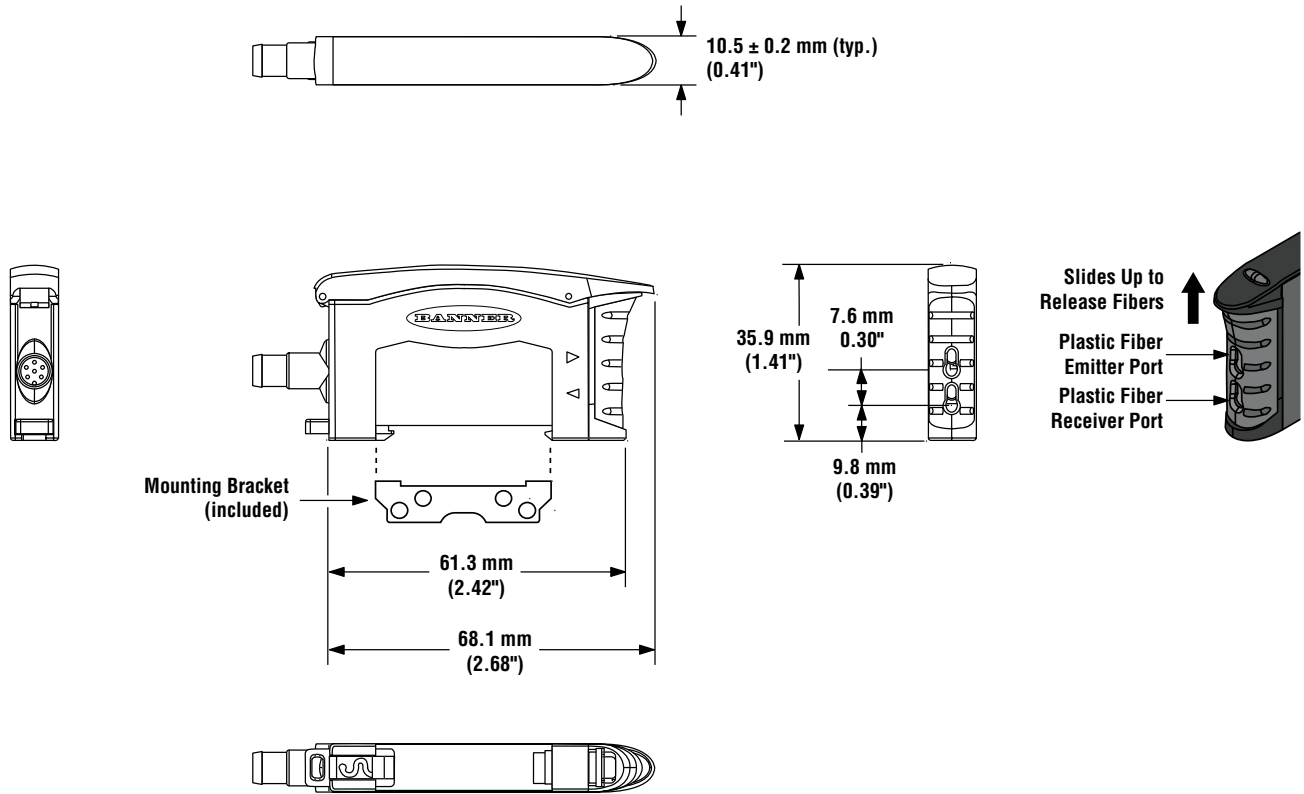
D10 Expert™ Dual Discrete Outputs

Specifications

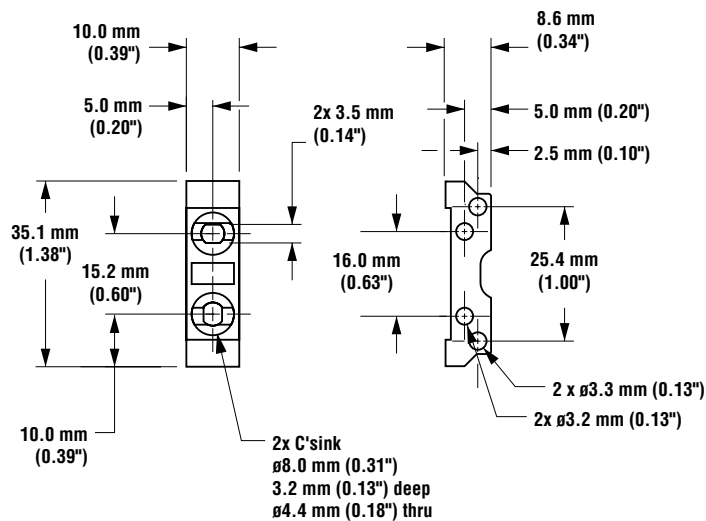
Required Fiber-Optic Cable	Banner P-Series plastic fibers		
Sensing Beam	Visible red, 680 nm, or Visible green, 525 nm, depending on model		
Supply Voltage and Current	12 to 24V dc (10% maximum ripple) at less than 65 mA, exclusive of load		
Supply Protection Circuitry	Protected against reverse polarity and transient voltage		
Output Configuration	2 NPN or 2 PNP, depending on model		
Output Rating	150 mA maximum load OFF-state leakage current: < 10 µA at 24V dc ON-state saturation voltage: NPN < 1.5V at 150 mA load PNP < 2.5V at 150 mA load		
Output Protection Circuitry	Protected against false pulse on power-up and continuous short-circuit		
Output Response Time	Programmable, 50 microseconds, 200 microseconds, 1 millisecond, 2.5 milliseconds NOTE: < 1 second delay on power-up; outputs do not conduct during this time.		
Adjustments	Push-button or remote programming of response time, OFF-delay, light/dark operate, and display		
Indicators	Four-digit digital display plus LED indicators for active channel, push-button lockout, OFF-delay and light/dark operate selection; 2 yellow output indicators		
Construction	Black ABS/polycarbonate alloy (UL94 V-0 rated) housing, clear polycarbonate cover		
Environmental Rating	NEMA 1, IEC IP50		
Connections	PVC-jacketed 2 m or 9 m (6.5' or 30') 6-wire integral cable or integral 6-pin Pico-style quick-disconnect		
Operating Conditions	Temperature: -20° to +55°C (-4° to +131°F) Storage Temperature: -20° to +80°C (-4° to +175°F) Max. Rel. Humidity: 90% @ 50°C (non-condensing)		
	Number of Devices, Stacked	Ambient Temperature Rating	Load Specification
	3	55°C	150 mA
	7	50°C	50 mA
10	45°C	50 mA	
Installation	35 mm DIN rail or included mounting bracket		
Certifications			

D10 Expert™ Dual Discrete Outputs

Dimensions



Included Bracket Dimensions



M3 Hardware included:
 Lock Washer (2)
 Flat Washer (2)
 Screws (2)
 Hex Nuts (2)