

Sensing Mode		Model ^{3 4}	Range	Output
		Q12AP6FF50Q3		1 PNP LO
		Q12RP6FF50Q3		1 PNP DO
		Q12AN6FF50Q3		1 NPN LO
		Q12RN6FF50Q3		1 NPN DO

Specifications

Sensing Beam

640 nm visible red

Supply Voltage and Current

10 to 30V dc (10% max. ripple) at 20 mA max current

Supply Protection Circuitry

Protected against reverse polarity and transient voltages

Output Configuration

Bipolar (1 NPN and 1 PNP) solid-state output or Single output (PNP or NPN), LO or DO, depending on model

Output Ratings

OFF-state leakage current:

- **NPN:** 200 μ A
- **PNP:** 10 μ A

ON-state saturation voltage:

- **NPN:** 1.25V at 50 mA
- **PNP:** 1.45V at 50 mA

Output Protection Circuitry

Protected against false pulse on power-up, short-circuit protected

Output Response Time

Opposed Mode: 1.3 ms ON; 900 μ s OFF

All Other Modes: 700 μ s ON/OFF

NOTE: 120 ms delay on power-up; outputs do not conduct during this time.

Repeatability

175 microseconds

Switching Frequency

Opposed Mode: 385 Hz

All Other Modes: 715 Hz

Indicators

One Yellow and one Green LED (see Figure 1)

Construction

Polarized Retro Models: Thermoplastic elastomer housing with glass lens

All Other Standard Models: Thermoplastic elastomer housing with polycarbonate lens

Chemical-Resistant Models: Housing encased in PFA jacket; cable encased in 3/16 in O.D. PFA tubing

Environmental Rating

Standard Models: IEC IP67

Chemical-Resistant Models: IEC IP67 (NEMA6) and PW12 1200 psi washdown per NEMA ICS5, Annex F-2002

Connections

Standard Models: 2 m (6.5 ft) or 9 m (30 ft) attached PVC cable, or 150 mm (6 in) pigtail with M8 or M12 threaded connection

Chemical-Resistant Models: 2 m (6.5 ft) cable encased in 3/16 in O.D. PFA tubing

Operating Conditions

Operating temperature: -20 °C to +55 °C (-4 °F to +131 °F)

Storage temperature: -30 °C to +75 °C (-22 °F to +167 °F)

Relative humidity: 95% max at +50 °C (+122 °F) non-condensing

Certifications



³ For black housing, add prefix **D** to the model number, for example **DQ12AB6FF15**.

⁴ **Q3 models:** 3-pin Pico-style (M8 threaded) 150 mm (6 in) pigtail QD. Not available for bipolar models. For 9 m (30 ft) cable, add suffix **W/30** to the model number, for example, **Q126E W/30**. For 4-pin Pico-style (M8 threaded) 150 mm (6 in) pigtail QD, add suffix **Q** to the model number, for example, **Q126EQ**. For 4-pin Euro-style (M12 threaded) 150 mm (6 in) pigtail QD, add suffix **Q5** to the model number, for example **Q126EQ5**.

Indicator Features



Figure 1. Features

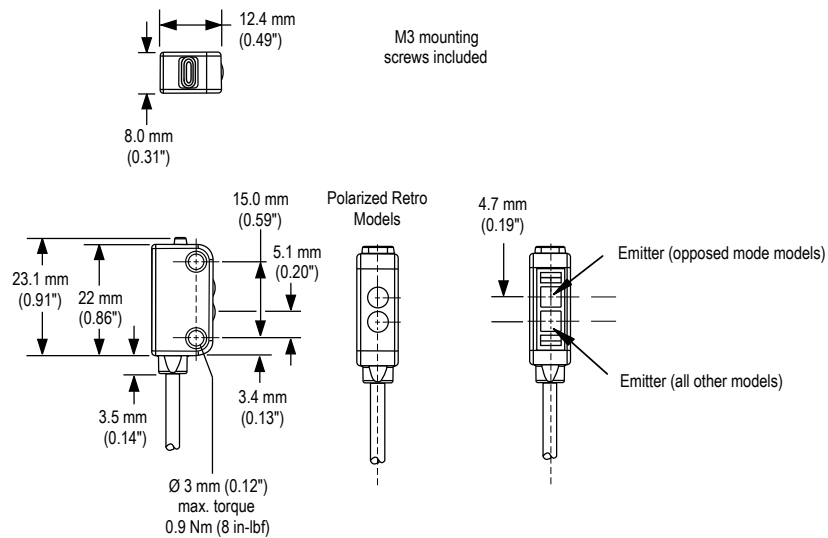
1. Yellow and Green LEDs

- Green ON steady: power to sensor is ON
- Green flashing: output is overloaded
- Yellow ON steady: received signal
- Yellow flashing: marginal signal

Chemical-Resistant models: LEDs are visible through translucent PFA jacket. Rated to 1200 psi washdown.

Dimensions

Standard Models



Chemical-Resistant Models

