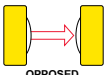
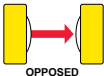
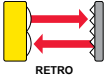
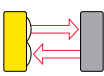
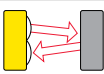
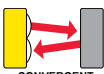
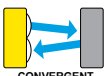
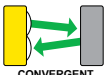
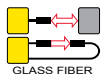
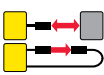


MINI-BEAM dc-Voltage Series



Self-contained photoelectric sensors

Models

Sensing Mode		Range	LED	Model
 OPPOSED	Opposed Emitter	3 m (10 ft)	Infrared 880 nm	SM31E
	Opposed Receiver			SM31R
	Opposed Emitter - Long Range	30 m (100 ft)		SM31EL
	Opposed Receiver - Long Range			SM31RL
 OPPOSED	Opposed Emitter - Clear Plastic Detection	0 to 300 mm (0 to 12 in) Actual range varies, depending on the light transmission properties of the plastic material being sensed.		SM31EPD
	Opposed Receiver - Clear Plastic Detection			SM31RPD
 RETRO	Non-Polarized Retroreflective	5 m (15 ft)	Visible Red 650 nm	SM312LV
 POLAR RETRO	Polarized Retroreflective	55 mm to 2 m (2 in to 7 ft)		SM312LVAG
	Extended-Range Polarized Retroreflective	10 mm to 3 m (0.4 in to 10 ft)		SM312LP
 DIFFUSE	Diffuse	380 mm (15 in)	Infrared 880 nm	SM312D
		300 mm (12 in)		SM312DBZ
	Divergent Diffuse	130 mm (5 in)		SM312W
 CONVERGENT	Convergent	16 mm (0.65 in) Focus		SM312C
		43 mm (1.7 in) Focus		SM312C2
 CONVERGENT		16 mm (0.65 in) Focus	Visible Red 650 nm	SM312CV
		43 mm (1.7 in) Focus		SM312CV2
 CONVERGENT		16 mm (0.65 in) Focus	Visible Blue 475 nm	SM312CVB
		49 mm (1.9 in) Focus		SM312CV2B
 CONVERGENT		16 mm (0.65 in) Focus	Visible Green 525 nm	SM312CVG
		49 mm (1.9 in) Focus		SM312CV2G
 GLASS FIBER	Glass Fiber Optic	Range varies, depending on sensing mode and fiber optics used.	Infrared 880 nm	SM312F
			Visible Red 650 nm	SM312FV
			Visible Blue 475 nm	SM312FVB
			Visible Green 525 nm	SM312FVG
 PLASTIC FIBER	Plastic Fiber Optic		Visible Red 650 nm	SM312FP
			Visible Blue 475 nm	SM312FPB
			Visible Green 525 nm	SM312FPG
	Special High-Power Option Plastic Fiber Optic			Visible Red 650 nm

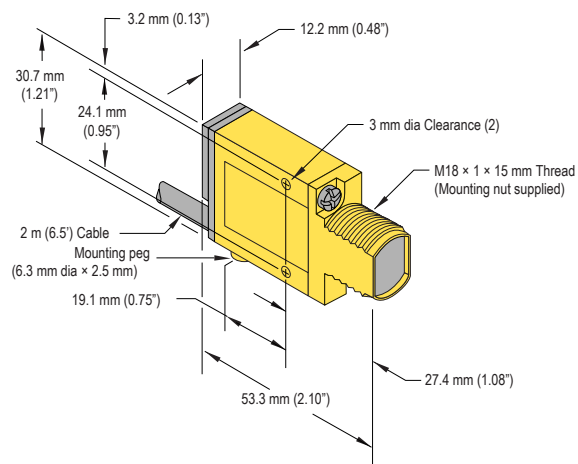
Standard 2 m (6.5') cable models are listed.

- 9 m (30') cable: add suffix "W/30" (e.g., SM31EW/30).
- 4-pin Euro QD models: add suffix "QD" (e.g., SM31EQD).
- 150 mm (6") QD Pigtail: add suffix "QDP" (e.g., SM31EQDP).

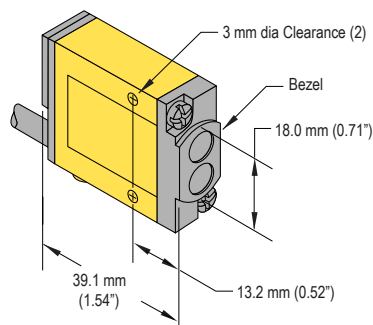
For a 0.3 ms response: add suffix "MHS" (eg., SM31EMHS).

Dimensions

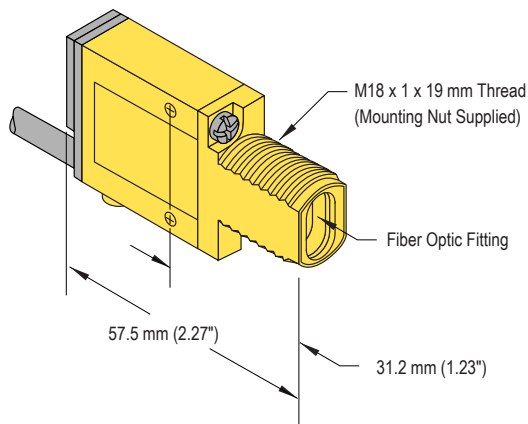
Models with suffix E, EL, EPD, R, RL, RPD, LV, LVAG, LP, D, C, C2, CV, CV2, CVG, CV2G, CVB, and CV2B



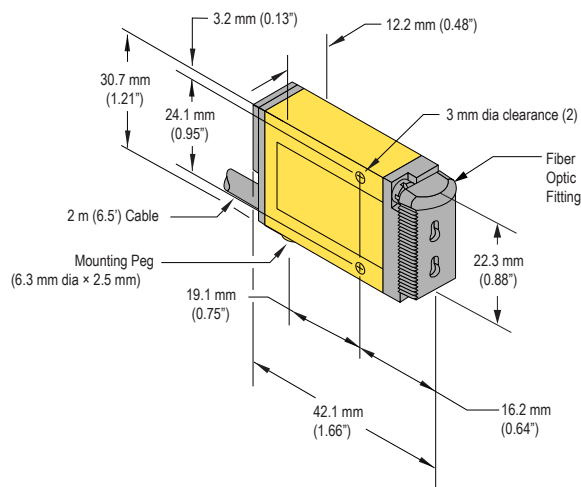
Models with suffix DBZ and W



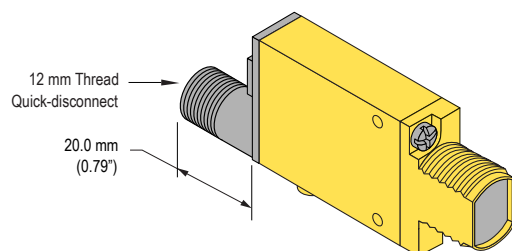
Models with suffix F, FV, FVB, and FVG



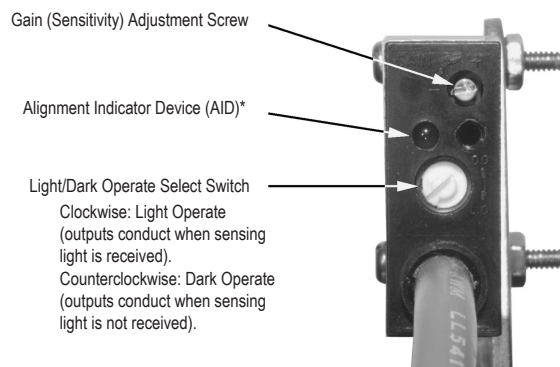
Models with suffix FP, FPB, FPG, and FPH



QD Models



Sensor Features



*U.S. Patent no. 4356393