

PHOTOSWITCH® Photoelectric Sensors

42BT Long Range Background Suppression

Slim Flatpack Style



General Specifications

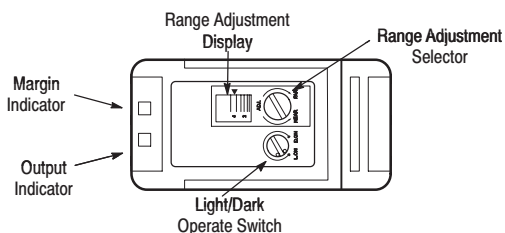
Unit Protection	Short circuit
Supply Voltage	12-24V DC
Current Consumption	30mA maximum
Output Type	NPN and PNP
Output Mode	Light/dark operate selectable
Output Rating	100mA@24V DC
Max Leakage Current	0.1mA
Response Time	2ms maximum
Housing Material	Polyarylate
Lens Material	Polyarylate
LED Indicators	See User Interface below.
Connection Types	4-pin pico and micro QD on 6 inch pigtail, 2m cable
Supplied Accessories	Screwdriver
Optional Accessories	Cordsets, mounting brackets—see page NO TAG
Operating Environment	NEMA 1, IP50 (IEC529)
Vibration	10-55Hz, 1mm amplitude, Meets or exceeds IEC 60947-5-2
Shock	30g with 1ms pulse duration, Meets or exceeds IEC 60947-5-2
Operating Temperature	-5°C to +55°C (+23°F to +131°F)
Relative Humidity	35...85%
Approvals	UL listed, c-UL, and CE marked for all applicable directives

Features

- Long range background suppression diffuse sensing mode
- Adjustable range settings
- Slim flatpack housing design
- Highly visible LED Indicators
- Pico QD and 2m cable versions
- Both NPN and PNP outputs
- Short-circuit protected outputs
- Fast 2ms response time

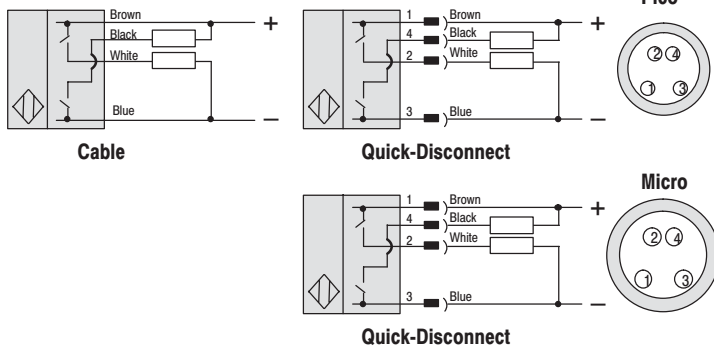
User Interface Panel

Label	Color	State	Status
Margin	Green	OFF	Margin < 2.5
		ON	Margin > 2.5
Status	Red	OFF	Output not activated
		ON	Output activated

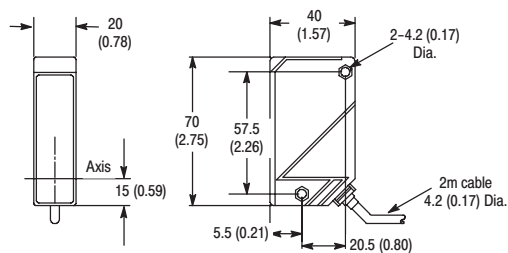


Wiring Diagrams

NPN/PNP



Dimensions—mm (inches)

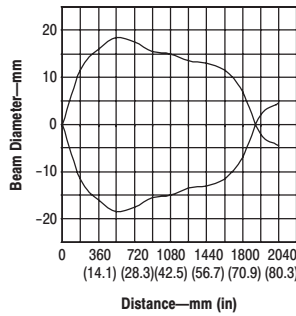
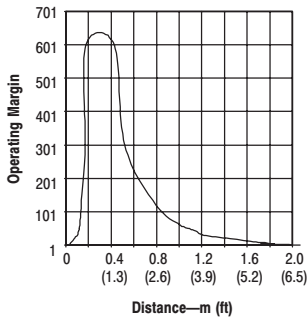


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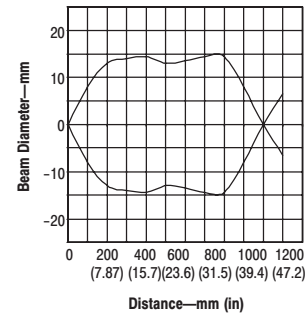
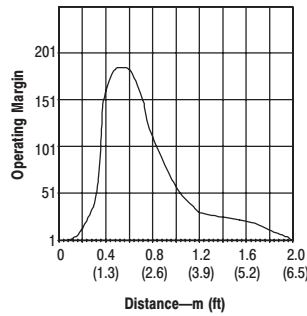
Typical Response Curve Beam Pattern

42BT-B1LBSN





Typical Response Curve Beam Pattern

42BT-B2LBSL



Product Selection

Sensing Mode	Operating Voltage Supply Current	Sensing Distance	LED Source	Output Energized	Output Type/ Capacity Response Time	Connection Type	Catalog Number
 Background Suppression Field of View: 1.7°	12-24V DC ± 10% 30mA	0.2m (0.66ft) to 1m (3.3ft)	Visible Red 650nm	L.O./D.O. selectable	NPN/PNP complementary 2ms (max)	2m 300V cable	42BT-B2LBSL-A2
						4-pin DC micro	42BT-B2LBSL-F4
						4-pin DC pico	42BT-B2LBSL-Y4
 Background Suppression Field of View: 2.8°		0.2m (0.66ft) to 2m (6.4ft)	Infrared 880nm			2m 300V cable	42BT-B1LBSN-A2
						4-pin DC micro	42BT-B1LBSN-F4
						4-pin DC pico	42BT-B1LBSN-Y4

Cordsets

Description	Catalog Number
2m (6.5ft) 4-pin, DC Micro QD Cordset	889D-F4AC-2
2m (6.5ft) 4-pin, AC Pico QD Cordset	889P-F4AB-2