Installation Instructions
PHOTOSWITCH® Bulletin 42KC Miniature Rectangular: 5V DC Version

IMPORTANT: SAVE THESE INSTRUCTIONS FOR FUTURE USE.

Description

Bulletin 42KC Miniature Rectangular Self Contained Photoelectric sensors are useful in applications where a small sensor with extended sensing range and fast response time is required. These flexible sensors offer a choice of end or side view optics, switch selectable light or dark operation, and dual output and stability indicators.

42KC sensors have a red output indicator and a green stability indicator. The stability indicator is on when the detected margin level is below 0.8X or above 1.2X, indicating stable sensing operation. The indicator is OFF when the application margin is between these two levels

42KC sensors are available with a single NPN or PNP output that is switch selectable for Light or Dark output operation. All 42KC sensors also are supplied with a stability output that signals when the sensor may be operating in an unstable state. The stability output is initiated after the detected margin level is between 1.0X and 1.2X and remains on until sensor output is triggered.

Each Bulletin 42KC sensor comes complete with a steel right angle mounting bracket which provides a variety of mounting options. Polarized Retroreflective sensors also contain a compact, rectangular reflector suited to most applications. Other reflectors are available separately.

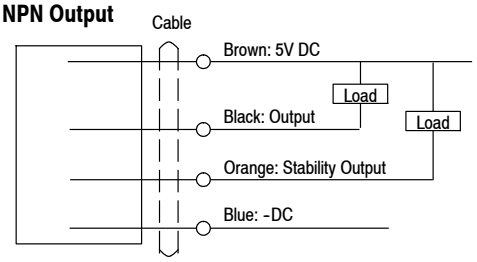
Features

- Sensitivity adjustment potentiometer (except Transmitted Beam sensing mode)
- Dual LED indicators: output (red), stability (green)
- Pico style quick-disconnect version available

Wiring Diagrams

Cable Version

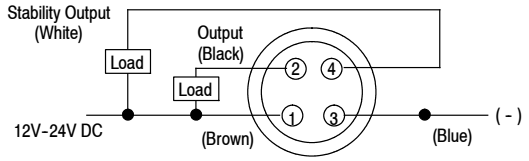
NPN Output



Pico Quick-Disconnect Version

NPN Output

Face View Male Receptacle (Sensor)



Features (continued)

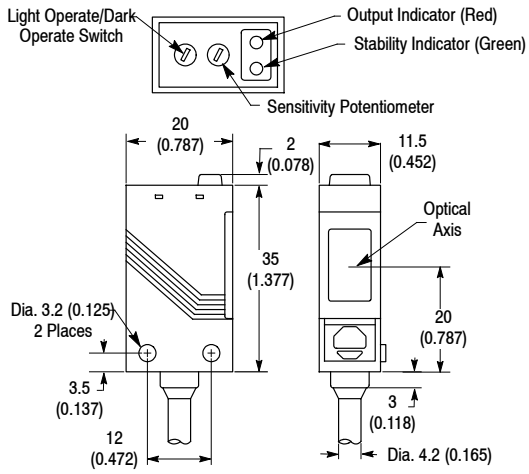
- Short-circuit protection on the sensor output (NPN output versions only)
- Switch selectable light or dark operate
- Flat lens surface to minimize dust collection
- Reverse polarity protection
- False pulse protection
- Transient noise protection
- Stability output

General Specifications

Relative Humidity	85% max
Ambient Temperature	-13°F to +131°F (-25°C to +55°C)
Lens Material	Acrylic
Housing Material	Polyarylate
Operating Environment	NEMA 1, 4, 6P, 12, 13 and IP67
Approvals	UL listed and CSA certified, class 2 source required, and CE marked for all applicable directives
Weight	80 grams (2.83oz)
Cable Construction	2m (6.5ft) 500V PVC jacketed 24AWG 4-conductor cable
QD Construction	4-pin pico style male receptacle

Dimensions—mm (inches)

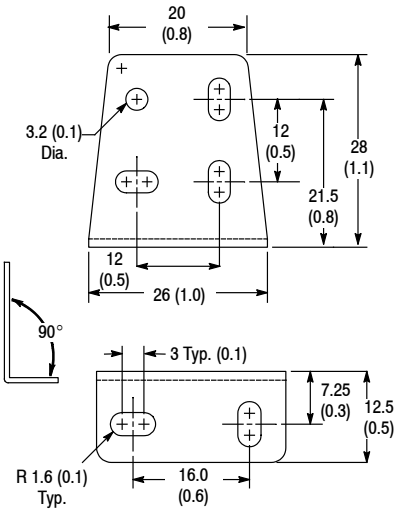
Cable Version (Side View) Sensors 42KC-P2YNSM-A2



Dimensions—mm (inches)

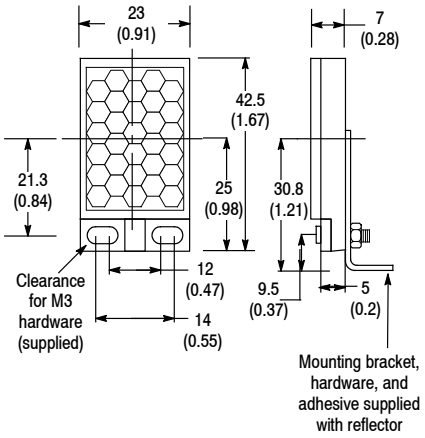
Side View Stainless Steel Mounting Bracket

Stainless steel mounting bracket and hardware supplied with side view sensors.



Reflector #92-93

Supplied with all polarized retroreflective sensors.

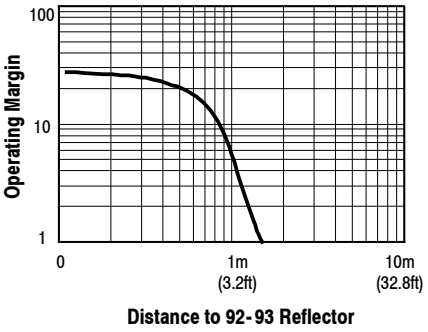
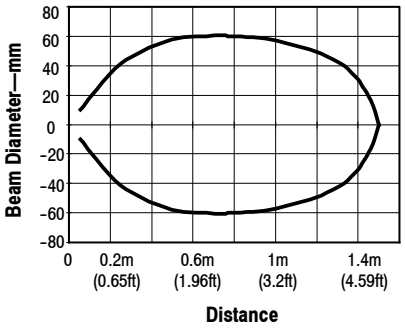


	Polarized Retroreflective
Field of View	8°
Transmitting LED	Visible red 700nm
Connection	4-conductor 500V PVC jacketed cable 6.5ft (2m)
1:1 Margin	1.5m (4.9ft)

Polarized Retroreflective

Operating Voltage	Supply Current	Output Energized	Output Characteristics			Response Time	Size	Connection Type	Catalog Number
			Type	Max Load Current	Max Leakage Current				
5V DC ±10%	25mA	Light/Dark Selectable	NPN	Output: 100mA Stability: 50mA	0.5mA	0.5ms	11.5mm x 20mm x 35mm side view lens	2m 500V cable	**42KC-P2YNSM-A2**
								4-pin pico QD	**42KC-P2YNSM-P4**

Typical Response Curves



Beam Pattern