

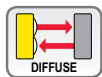
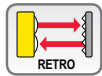
# PVD

## One-Piece Pick-to-Light Sensor

- Large green job light indicates action to perform, and red job light indicates an error.
- Two lengths are available to fit existing bins and configurations: 100 and 225 mm.
- Easy-to-use sensor suits many part assembly, pick-to-light and error-proofing applications.
- One-piece self-contained sensor requires no controller.
- Sensor automatically operates in either diffuse or retroreflective mode, depending on the application.
- Setup and adjustment are automated, and a wide beam pattern provides easy alignment.
- A choice of protective mounting brackets are available.

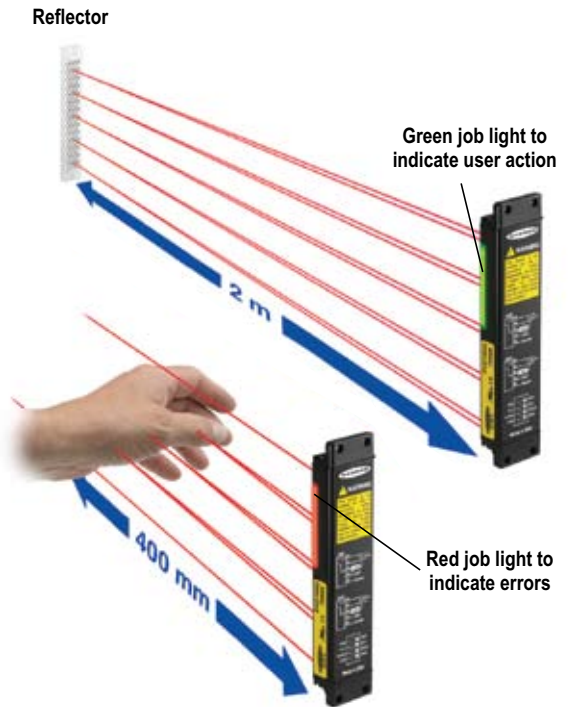


ACCESSORIES  
page 449



**ONLINE**  
AUTOCAD, STEP,  
IGES & PDF

Length (L)	Models
137.8 mm	PVD100
266.4 mm	PVD225



### PVD, 12-30V dc

→ Visible Red LED

Sensing Mode/LED	Range	Array	Connection	Output	Models
 RETRO	Retroreflective Mode: up to 2 m	100 mm (4 Beams)	2 m 5-pin Euro Pigtail QD	NPN/PNP	PVD100 PVD100Q
	 DIFFUSE	Diffuse Mode: up to 400 mm	225 mm (8 Beams)		2 m 5-pin Euro Pigtail QD

Connection options: A model with a QD requires a mating cordset (see page 449).

For 9 m cable, add W/30 to the 2 m model number (example, PVD100 W/30).

PVD Specifications	
<b>Sensing Range</b>	<b>Retroreflective applications:</b> 2 m, using 25 mm wide retroreflective tape <b>Diffuse applications:</b> 400 mm, with 18% reflectivity gray card target
<b>Sensing Beam</b>	630 nm, Visible red
<b>Beam Spacing</b>	28.6 mm
<b>Sensing Height</b>	<b>4-channel models:</b> 111 mm <b>8-channel models:</b> 240 mm
<b>Supply Voltage and Current</b>	<b>Input Voltage:</b> 12 to 30V dc (10% max. ripple @ 10% duty cycle) <b>Input Current:</b> less than 40 mA @ 24V dc and less than 70 mA @ 12V dc (exclusive of load)
<b>Supply Protection Circuitry</b>	Protected against reverse polarity and transient over-voltage
<b>Sensing Resolution</b>	<b>Retroreflective:</b> 51 mm at 406 mm range, 100 mm at 2 m <b>Diffuse:</b> 55 mm dia. at 400 mm range
<b>Output Configuration</b>	<b>User-selectable via DIP switch:</b> 1 open-collector PNP (current sourcing) or 1 open-collector NPN (current sinking)
<b>Output Rating</b>	150 mA max. <b>OFF-state leakage current:</b> less than 10 µA <b>ON-state saturation voltage:</b> <b>NPN:</b> less than 1.0V dc at 150 mA <b>PNP:</b> less than 2.0V dc at 150 mA
<b>Output Protection Circuitry</b>	Protected against false pulse at power-up and short circuit of outputs
<b>Output Response Time</b>	400 milliseconds (Includes standard 100 milliseconds ON-delay and 100 milliseconds OFF-delay)
<b>Delay at Power-Up</b>	Less than 1.0 second
<b>Indicators</b>	<b>Green:</b> LED to indicate power ON/OFF <b>Yellow:</b> LED to indicate output ON/OFF <b>Job Light:</b> (Diffused Green LED) Turned ON and OFF by applying an external signal to the Job input (white wire). The job lights will be active high or active low, depending on user selection of DIP switch 4. <b>Error Light:</b> (Diffused Red LED) Turned ON and OFF by detection of an output event when job light is not ON.
<b>Adjustments</b>	<b>4 DIP switches, located behind access panel</b> († denotes default setting): 1. PNP†/ NPN output 2. Normally Open operation†/Normally Closed 3. Job light ON solid†/Job light flashing 4. Job light input high†/Job light input low
<b>Construction</b>	Black painted aluminum housing; acrylic lenses; thermoplastic polyester end caps; thermoplastic elastomer programming switch cover; stainless steel mounting brackets and hardware
<b>Environmental Rating</b>	NEMA 2; IEC IP62
<b>Connections</b>	5-conductor PVC-jacketed 2 m cable which is either unterminated or terminated with a 5-pin Euro-style quick-disconnect connector, depending on model. Cable diameter is 3.3 mm. QD cordsets are ordered separately. See page 449.
<b>Operating Conditions</b>	<b>Temperature:</b> 0° to +50° C <b>Relative humidity:</b> 90% relative humidity @ 50° C (non-condensing)
<b>Certifications</b>	
<b>Hookup Diagrams</b>	LI03 (p. 769)

Photoelectrics  
Sensors  
Fiber Optic  
Sensors  
Special Purpose  
Sensors  
Measurement &  
Inspection Sensors

Vision

Wireless

**Lighting &  
Indicators**

Safety  
Light Screens

Safety  
Laser Scanners

Fiber Optic  
Safety Systems

Safety Controllers &  
Modules

Safety Two-Hand  
Control Modules

Safety Interlock  
Switches

Emergency Stop &  
Stop Control

TASK LIGHTS

VISION LIGHTS

INDICATORS

**ACTUATORS**

K50/K80

PVD

PVA

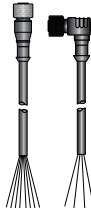
VTB


OTB/LTB

STB




## Cordsets


Euro QD		
See page 685		
Threaded 5-Pin		
Length	Straight	Right-Angle
1.83 m	MQDC1-506	MQDC1-506RA
4.57 m	MQDC1-515	MQDC1-515RA
9.14 m	MQDC1-530	MQDC1-530RA

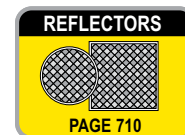


 Additional cordset information available. See page 679.

## Brackets

PVD		
 pg. 667 SMBPVD...	 pg. 665 SMBPVA.C	 pg. 666 SMBPVA6

 Additional brackets and information available. See page 620.



# Lighting & Indicators Hookups

Accessories

Reference

Hookups

Wiring Diagrams

Glossary

International Reps

<b>LI01</b>	<b>K50 and K80 Current Sinking (NPN) Hookup for Solid Job Light—1 or 2 Color</b>	<b>Key</b>
<b>K50 and K80 Current Sourcing (PNP) Hookup for Solid Job Light—1 or 2 Color</b>		<p>1 = Brown 2 = White 3 = Blue 4 = Black</p>
<b>4-Pin Euro</b>		

<b>LI02</b>	<b>K50 and K80 Current Sinking (NPN) for Solid Job Light—3 Color</b>	<b>Key</b>
<b>K50 and K80 Current Sourcing (PNP) for Solid Job Light—3 Color</b>		<p>1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray</p>
<b>5-Pin Euro</b>		

<b>LI03</b>	<b>PVD with Switch-Selectable Output Current Sinking (NPN)</b>	<b>Key</b>
<p>* See configuration information in data sheet for job light enable input requirements. † For specialized applications requiring custom configuration options. See data sheet and contact your Banner representative for more information.</p>		
<b>PVD with Switch-Selectable Output Current Sourcing (PNP)</b>		<p>1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray</p>
<p>* See configuration information in data sheet for job light enable input requirements. † For specialized applications requiring custom configuration options. See data sheet and contact your Banner representative for more information.</p>		
<b>5-Pin Euro</b>		

<b>LI04</b>	<b>PVA Current Sinking (NPN)</b>	<b>Key</b>
<p>* See data sheet for Programming information or job light enable requirements.</p>		
<b>PVA Current Sourcing (PNP)</b>		<p>1 = Brown 2 = White 3 = Blue 4 = Black</p>
<p>* See data sheet for Programming information or job light enable requirements.</p>		
<b>4-Pin Euro</b>		

