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more sensors, more solutions



2014



PVA

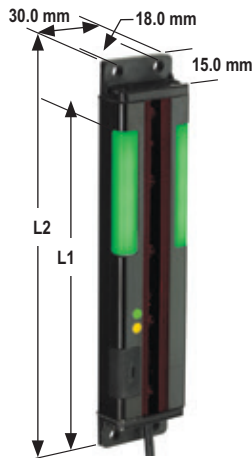
Parts Verification Array

The PVA Pick-to-Light Sensor helps reduce missed and misassembled parts for increased quality and reduced production costs. With highly visible job lights, Banner's PVA provides the most reliable solution for error proofing.


- Emitter/receiver arrays for high resolution sensing
- Four lengths to cover a variety of openings and applications
- Highly reliable sensing over a long operating range
- Wide field-of-view makes alignment easy
- Protective mounting brackets available

PVA Model Key, 12-30 V DC Example Model Number PVA100P6EQ

Family	Length	Output	Emitter/ Receiver	Connection
PVA	100	P6	E	Q
	100 = 100 mm 225 = 225 mm 300 = 300 mm 375 = 375 mm	P6 = PNP N6 = NPN	E = Emitter R = Receiver Blank = E/R Pair	Blank = 2 m Integral Cable Q = 2 m Euro Pigtail QD



Models	No. of Beams	Length (L1)	Length (L2)
PVA100	5	100	137.8 mm
PVA225	10	225	266.4 mm
PVA300	13	300	341.4 mm
PVA375	16	375	416.6 mm

 **Connection options:** A model with a QD requires a mating cordset (see page 635).
For 9 m cable, add W/30 to the 2 m model number (example, PVA100P6E W/30).

Cordsets

Euro QD (for Q models)

See page 908

Length	Threaded 4-Pin			
	Straight		Right-Angle	
1.83 m		MQDC-406		MQDC-406RA
4.57 m		MQDC-415		MQDC-415RA
9.14 m		MQDC-430		MQDC-430RA

Additional cordset information available.
See page 904.

Brackets

PVA

See page 890

See page 890

See page 890

SMBPVA...	SMBPVA..C	SMBPVA2

Additional bracket information available.
See page 846.

PVA Specifications

Beam Spacing	25.0 mm		
Sensing Height	100, 225, 300 or 375 mm, depending on emitter and receiver models		
Supply Voltage and Current	12 to 30 V dc (10% max. ripple) at less than 62 mA for the emitter and 50 mA for the receiver (exclusive of load)		
Supply Protection Circuitry	Protected against reverse polarity		
Output Configuration	Receivers have one solid-state dc output, programmable for Light or Dark Operate: Models PVA...N6R have current sinking (NPN) open-collector transistor Models PVA...P6R have current sourcing (PNP) open-collector transistor		
Output Rating	150 mA max. OFF-state leakage current: less than 2 μ A ON-state saturation voltage: less than 1 V dc at 10 mA and less than 1.5 V dc at 100 mA		
Output Response Time	Sensor Size	Standard	With Crosstalk from Adjacent Units
	100 mm	20 milliseconds	30 milliseconds max.
	225 mm	40 milliseconds	60 milliseconds max.
	300 mm	52 milliseconds	78 milliseconds max.
	375 mm	64 milliseconds	96 milliseconds max.
Output Protection Circuitry	Protected against false pulse at power-up and continuous overload or short circuit of outputs		
Sensing Resolution	35 mm min. diameter		
Status Indicators	Emitter: One Green LED to indicate power ON/OFF One Red LED to indicate frequency selected Receiver: One Green LED to indicate power ON/OFF One Yellow LED to indicate output state Emitter & Receiver: Both have two highly visible "job lights" which are turned ON/OFF by applying an external signal to the white wire. The job lights may be programmed for steady or flashing green.		
Construction	Black painted aluminum housing; acrylic lenses; PBT polyester end caps; thermoplastic elastomer programming switch cover; stainless steel mounting brackets and hardware		
Environmental Rating	IEC IP62; NEMA 2		
Connections	Emitter: 3-conductor PVC-jacketed 2 m cable which is either unterminated or terminated with a 4-pin Euro-style quick-disconnect connector, depending on model. Cable diameter is 3.3 mm. Receiver: 4-conductor PVC-jacketed 2 m cable which is either unterminated or terminated with a 4-pin Euro-style quick-disconnect connector, depending on model. Cable diameter is 3.3 mm.		
Operating Temperature	0° to +50° C		
Certifications			
Hookup Diagrams	Emitters: LI05 (p. 1002) All others: LI04 (p. 1001)		