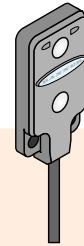


Features

- Extremely low profile self-contained miniature sensor
- Visible red sensing beam
- 10 V DC to 30 V DC supply voltage
- NPN or PNP output, depending on the model
- 15 mm or 30 mm convergent point, depending on the model
- Available in dark-operate or light-operate models



WARNING:



- **Do not use this device for personnel protection**
- Using this device for personnel protection could result in serious injury or death.
- This device does not include the self-checking redundant circuitry necessary to allow its use in personnel safety applications. A device failure or malfunction can cause either an energized (on) or de-energized (off) output condition.

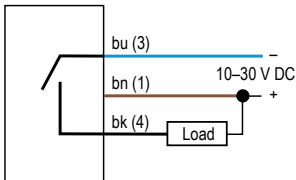
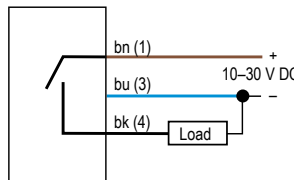
Models

Model ⁽¹⁾	Output Type	Range	Supply Voltage
VS2AN5CV15	NPN Light Operate	15 mm (0.6 inch) ±5 mm	10 V DC to 30 V DC
VS2RN5CV15	NPN Dark Operate		
VS2AP5CV15	PNP Light Operate		
VS2RP5CV15	PNP Dark Operate		
VS2AN5CV30	NPN Light Operate	30 mm (1.2 inch) ±10 mm	
VS2RN5CV30	NPN Dark Operate		
VS2AP5CV30	PNP Light Operate		
VS2RP5CV30	PNP Dark Operate		

Overview

VS2 Series miniature self-contained sensors are designed for precision sensing in small areas previously accessible only to remote or fiber optic models. Typical applications include mounting inside vibrating feeders and electronic component handling equipment.

Wiring

NPN	PNP
	

Specifications

Supply Voltage and Current

10 V DC to 30 V DC (10% max. ripple) at less than 25 mA (exclusive of load)

Supply Protection Circuitry

Protected against reverse polarity and transient voltages

⁽¹⁾ Integral 2 m (6.5 ft) unterminated cable models are listed.

- To order the 3-pin M8 integral quick disconnect model, add the suffix "Q" to the model number. For example, VS2AN5CV15Q.
- Models with a quick disconnect require a mating cordset.



Output Configuration

- SPST solid-state switch
- Choose NPN or PNP models
- Choose light operate or dark operate models

Output Rating

- 50 mA maximum
- Off-state leakage current:** < 1 microamp at 24 V DC
- On-state saturation voltage:** < 0.25 V at 10 mA DC; < 0.5 V at 50 mA DC

Output Protection Circuitry

- Protected against output short-circuit, continuous overload, and false pulse on power-up
- Overload trip point ≥ 100 mA

Output Response Time

- 1 millisecond ON and OFF

NOTE: 150 millisecond delay maximum on power-up: output does not conduct during this time

Repeatability

- 160 microseconds

Indicators

- Two LEDs: Green and Amber
- Green ON = power to sensor is ON
- Green flashing = output overload
- Amber ON = light is sensed

Construction

- Black ABS housing with acrylic lens

Connections

- 2 m (6.5 in) PVC integral cable: three #28 ga stranded conductors with PE insulation; 150 mm (6 in) PVC-jacketed cable with a 3-pin M8 male quick-disconnect connector. Quick disconnect cables are ordered separately.

Environmental Rating

- IP67; NEMA 6

Operating Conditions

- 20 °C to +55 °C (-4 °F to +131°F)
- 80% at +50 °C maximum relative humidity (non-condensing)

Vibration and Mechanical Shock

- Vibration:** All models meet IEC 60068-2-6, IEC 60947-5-2, UL491 Section 40, MIL-STD-202F Method 201A; 10 to 60 Hz, 0.5 mm peak to peak

- Shock:** All models meet IEC 60068-2-27, IEC 60947-5-2; 30g peak acceleration, 11 millisecond pulse duration, half-sine wave pulse shape

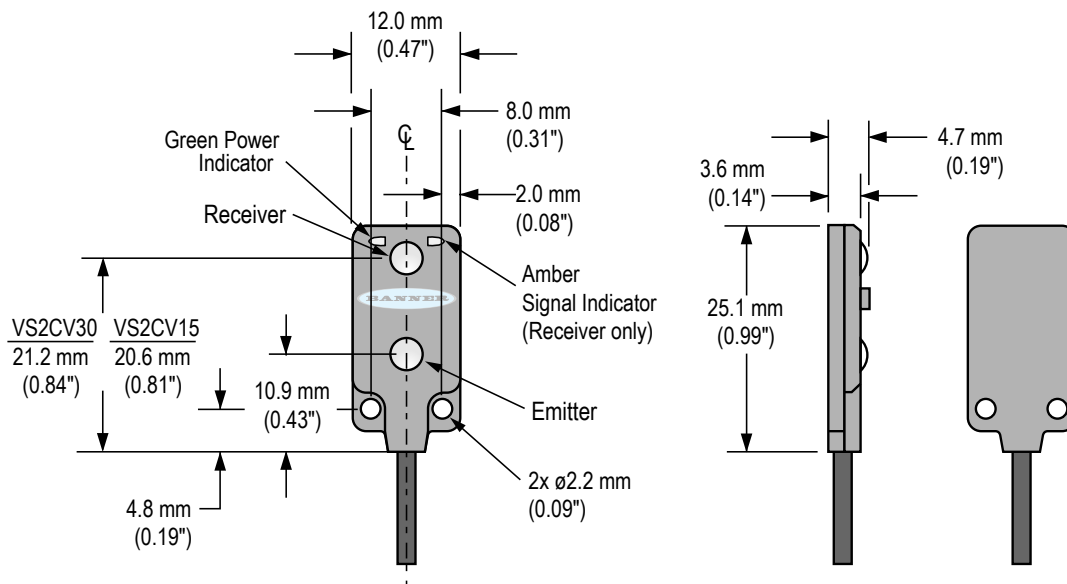
Application Notes

- M2 stainless steel mounting hardware included. Optional mounting brackets are available.

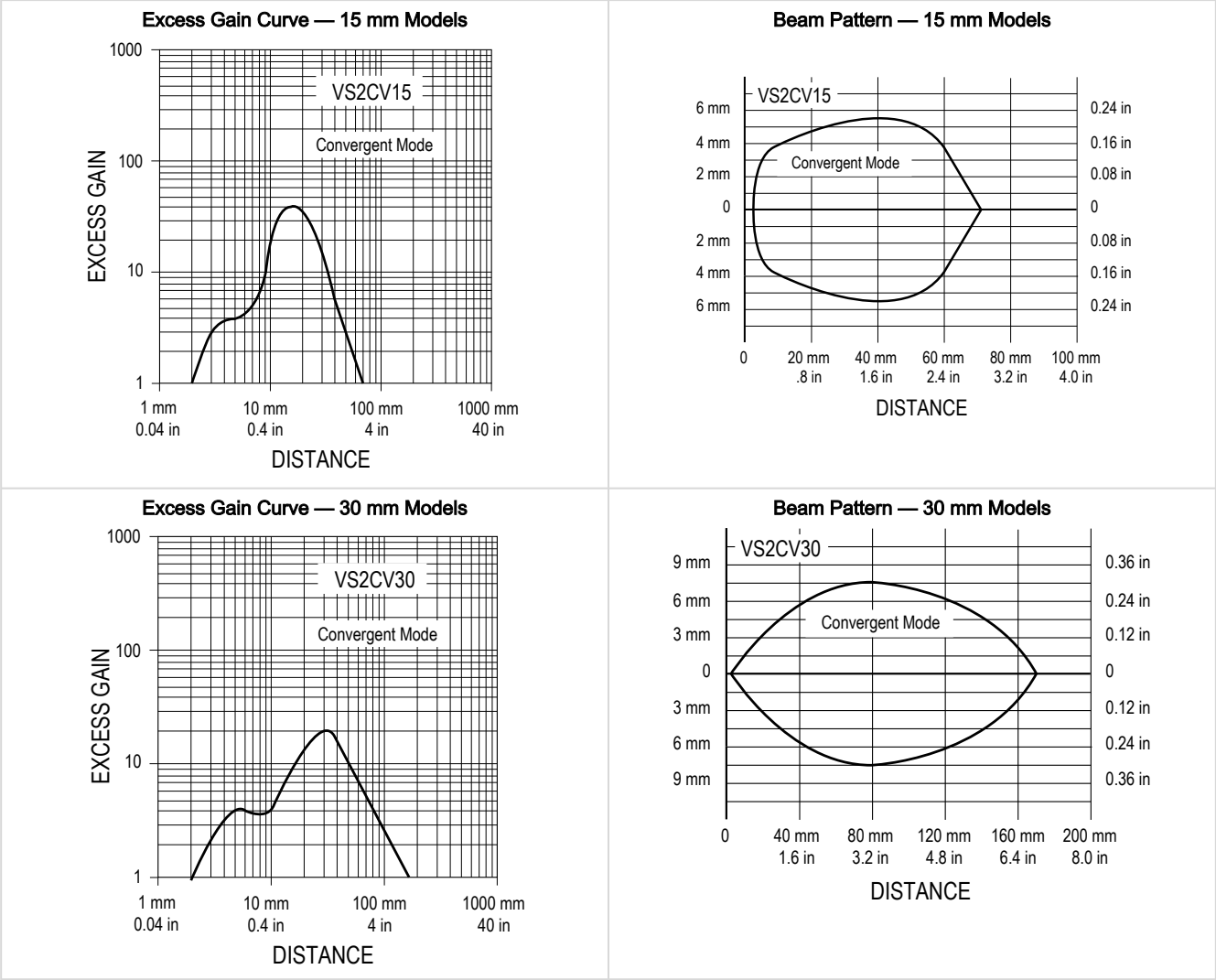
Certifications



Dimensions



Performance Curves



Accessories

Quick-Disconnect Cables

3-pin Single-Ended M8 Female Cordsets			
Model	Length	Dimensions	Pinout (Female)
PKG3M-2	2 m (6.56 ft)		
PKG3M-4	4 m (13.12 ft)		
PKG3M-5	5 m (16.4 ft)		
PKG3M-7	7 m (22.96 ft)		
PKG3M-9	9 m (29.52 ft)		
PKG3M-10	10 m (32.92 ft)		

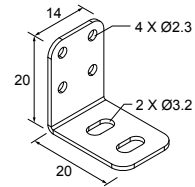
Brackets

SMBVS2RA

- Right-angle bracket
- Stainless steel

Hole center spacing: A = 80.0

Hole size: A = 3.2 x 6.0



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