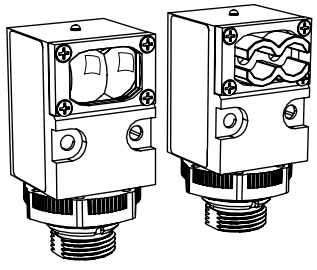
Features

With an electromechanical relay output



- Models available for:
  - 12 V AC/DC to 28 V AC/DC
  - 90 V AC to 130 V AC
  - 210 V AC to 250 V AC
- SPDT electromechanical relay output is rated for up to 5 amps switching capacity
- Rear panel sensitivity adjustment; top-mounted alignment indicator
- Visible red beam on most models, simplifies alignment
- Choose models with integral 2 m (6.5 ft) cable or mini-style quick disconnect connector; 9 m (30 ft) cables are also available

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

Opposed Mode Emitter (E) and Receiver (R)

Opposed-mode sensor pairs have higher excess gain than other models and should be used whenever possible. The visible red tracer beam simplifies sensor alignment.

Models	Connection	Supply Voltage	Range
SMA91E Emitter	2 m (6.5 ft) cable	10 V AC/DC to 250 V AC/DC	60 m (200 ft)
SMA91E W/30 Emitter	9 m cable		
SMA91EQD Emitter	3-pin Mini quick disconnect		
SMW95R Receiver	2 m (6.5 ft) cable	12 V AC/DC to 28 V AC/DC	
SMW95RQD Receiver	5-pin Mini quick disconnect		
SMA95R Receiver	2 m (6.5 ft) cable	90 V AC to 130 V AC	
SMA95RQD Receiver	5-pin Mini quick disconnect		
SMB95R Receiver	2 m (6.5 ft) cable	210 V AC to 250 V AC	
SMB95RQD Receiver	5-pin Mini quick disconnect		

ESR and RSR models' small effective beam size enables them to reliably detect relatively small objects. Their wide beam angle allows forgiving alignment within the 10 ft range.

Models	Connection	Supply Voltage	Range
SMA91ESR Emitter	2 m (6.5 ft) cable	10 V AC/DC to 250 V AC/DC	3 m (10 ft)
SMA91ESR W/30 Emitter	9 m cable		
SMA91ESRQD Emitter	3-pin Mini quick disconnect		
SMW95RSR Receiver	2 m (6.5 ft) cable	12 V DC to 28 V DC	
SMW95RSRQD Receiver	5-pin Mini quick disconnect		
SMA95RSR Receiver	2 m (6.5 ft) cable	90 V AC to 130 V AC	
SMA95RSRQD Receiver	5-pin Mini quick disconnect		

Models with a quick disconnect require a mating cordset. See "Quick Disconnect Cables" on page 9 for more information.

For a list of discontinued models, see Discontinued Models.

Original Instructions
19-Jun-26

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03453
p/n: 03453 Rev H

ПРОМЭЛЕКТРОНИКА/ sales@prom-elec.com

Retroreflective Mode

Retroreflective mode sensors are an alternative when opposed mode sensing is not possible. A visible red beam reduces the potential for false signals from reflective objects (proxing) and simplifies alignment. AG (anti-glare) models polarize the emitted light and filter out unwanted reflections.

Non-polarized retroreflective mode models

Models	Connection	Supply Voltage	Range
SMW915LV	2 m (6.5 ft) cable	12 V AC/DC to 28 V AC/DC	0.15 m to 9 m (6 in to 30 ft)
SMW915LV W/30	9 m cable		
SMW915LVQD	5-pin Mini quick-disconnect		
SMA915LV	2 m (6.5 ft) cable	90 V AC to 130 V AC	
SMA915LVQD	5-pin Mini quick-disconnect		

Polarized retroreflective mode models

Models	Connection	Supply Voltage	Range
SMA915LVAG	2 m (6.5 ft) cable	90 V AC to 130 V AC	0.3 m to 4.5 m (1 ft to 15 ft)
SMA915LVAGQD	5-pin Mini quick-disconnect		

Models with a quick disconnect require a mating cordset. See "Quick Disconnect Cables" on page 9 for more information.

Retroreflective range is specified using one model BRT-3 retroreflector (3 in diameter). Actual sensing range may be more or less than specified, depending upon the efficiency and reflective area of the retroreflector(s) in use. See www.bannerengineering.com for more information.

For a list of discontinued models, see Discontinued Models.

Diffuse Mode Models

Diffuse mode sensors detect the reflection of their own light from the object being sensed, and so require no special reflectors. They are ideal for applications where the reflectivity and profile of the object are sufficient to return a large portion of the emitted light back to the sensor. Choose DSR models for best response to objects at close range.

Models	Connection	Supply Voltage	Range
SMW915DQD	5-pin Mini quick disconnect	12 V AC/DC to 28 V AC/DC	760 mm (30 in)
SMA915D	2 m (6.5 ft) cable	90 V DC to 130 V DC	
SMA915DQD	5-pin Mini quick disconnect		
SMW915DSR	2 m (6.5 ft) cable	12 V AC/DC to 28 V AC/DC	380 mm (15 in)
SMW915DSRQD	5-pin Mini quick disconnect		
SMA915DSR	2 m (6.5 ft) cable	90 V AC to 130 V DC	
SMA915DSRQD	5-pin Mini quick disconnect		

Models with a quick disconnect require a mating cordset. See "Quick Disconnect Cables" on page 9 for more information.

For a list of discontinued models, see Discontinued Models.

Convergent Mode

Due to their narrow depth of field, convergent mode sensors excel at detecting small objects only a fraction of an inch in front of their backgrounds. The precise 1.5 mm (0.06 in) diameter sensing spot focuses 38.1 mm (1.5 in) in front of the sensor lens. The visible red beam simplifies alignment.

Models	Connection	Supply Voltage	Focus
SMA915CVQD	5-pin Mini quick disconnect	90 V AC to 130 V AC	38 mm (1.5 in) **Spot Size at Focus:** 1.5 mm (0.06 in)

Models with a quick disconnect require a mating cordset. See "Quick Disconnect Cables" on page 9 for more information.

For a list of discontinued models, see Discontinued Models.

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Glass Fiber Optic Sensors

Glass fiber-optic sensors can be used where sensing must be accomplished in tight, inaccessible, or volatile areas. The sensors can withstand vibration and shock, and are immune to electrical noise. Glass fibers withstand high temperatures, extreme moisture, and corrosive materials. Not recommended for applications requiring bending or repeated flexing of fibers.

Models	Connection	Supply Voltage	Range
SMW915F	2 m (6.5 ft) cable	12 V AC/DC to 28 V AC/DC	Range varies by sensing mode and fiber used
SMW915FQD	5-pin Mini quick disconnect		
SMA915F	2 m (6.5 ft) cable	90 V AC to 30 V AC	
SMA915F W/30	9 m cable		

To order the 9 m (30 ft) PVC cable model, replace the suffix "Q" with "W/30" in the model number. For example, SMW915F W/30. Models with a quick disconnect require a mating cordset. See "Quick Disconnect Cables" on page 9 for more information.

For a list of discontinued models, see Discontinued Models.

Plastic Fiber Optic Sensors

Plastic fiber optic sensors are compatible with more Banner plastic fiber optic assemblies. Excellent option for sensing in tight, inaccessible or volatile areas. It can withstand vibration and shock, and are immune to electrical noise. The sensor functions well at temperatures between -30 °C and +70 °C (-20 °F and +158 °F), and withstands repeated flexing. Most are easy to shorten in the field. Not recommended for severe environments.

None of the previously available plastic fiber-optic sensor models are available.

For a list of discontinued models, see Discontinued Models.

Overview

VALU-BEAM® 915 Series sensors are rugged, self-contained photoelectric sensors designed for especially demanding industrial applications where economy, performance, and durability are important. They feature SPDT (single-pole, double-throw, form C) electromechanical relay output and operate from a variety of supply voltages.

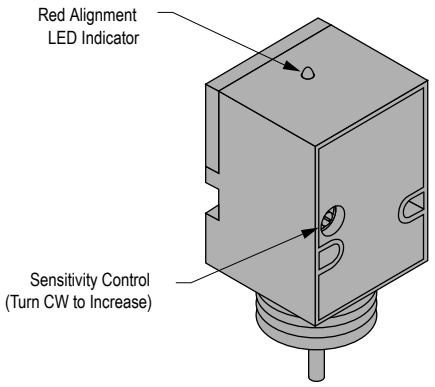
Powerful, modulated LED light sources provide a wide sensing range. The sensors are extremely robust; being totally epoxy-encapsulated, they are highly resistant to shock, vibration, moisture, and corrosion.

915 Series sensors may be mounted from either the front or the rear, using the two through-mount holes, or by their threaded base (mounting nut supplied), making them ideal for conveyor and other production line applications.

The easy-to-see top-mounted red LED indicator simplifies alignment and system monitoring.

Light or dark operate is selected by connecting the appropriate output relay contact to the circuit under control; see "VALU-BEAM 915 Wiring Diagrams" on page 4.

VALU-BEAM 915 Series sensor features



In light operate (LO) mode, the output is ON when the target returns the same or more light to the sensor and OFF when the sensor detects less light than the configured/ taught target. In **opposed and retroreflective sensing modes**, light operate is active when the beam is unblocked. In **diffuse, fixed field, and adjustable field sensor modes**, light operate is active when the target is present.

In dark operate (DO) mode, the output is ON when the target returns less light to the sensor than the configured target and OFF when the sensor detects more light than the configured/taught target. In **opposed and retroreflective sensing modes**, dark operate is active when the beam is blocked. In **diffuse, fixed field, and adjustable field sensor modes**, dark operate is active when the target is absent.

Fiber Optic Models

Banner offers a complete line of both plastic and glass fiber optic assemblies to fit VALU-BEAM 915 Series fiber optic model sensors. Glass fiber assemblies are recommended for environments with high temperatures, extreme moisture, and corrosive materials; they are not recommended for applications requiring bending or repeated flexing of fibers.

Plastic fiber optics are an economical alternative for piping photoelectric sensing light into and out of confined areas where the environmental conditions allow, and they can withstand repeated flexing. Banner plastic fiber optic assemblies are available in several core sizes; the highest excess gain will be obtained with the larger fiber cores. Standard plastic fiber optic assemblies are unterminated on the control (sensor) end. These assemblies are approximately 2 m (6 ft) long and may be used as-is or may be cut to length as needed, using the supplied fiber cutter. Cutting and installation instructions also are included with the fiber assembly.

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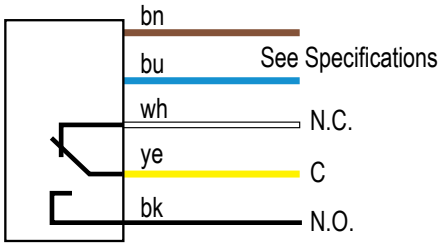
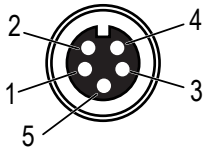
Both plastic and glass fibers are offered in individual and bifurcated styles. Individual fibers are used in pairs in the opposed sensing mode; one fiber transmits the light to the sensing location, while the other fiber returns the received light to the sensor. Bifurcated plastic fiber assemblies are two-way fibers, having a single sensing end that both emits and receives light and dual control (sensor) ends, which attach separately to the sensor. Fiber optic assemblies are available with a wide variety of sensing end styles. See www.bannerengineering.com for a full selection.

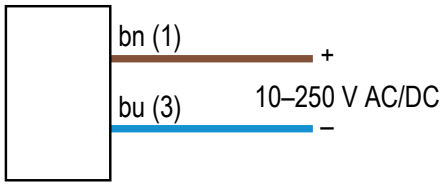
Wiring

Quick disconnect wiring diagrams are functionally identical.

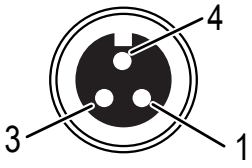


Key
1 = Brown
2 = White (Dark Operate)
3 = Blue
4 = Black (Light Operate)
5 = Yellow





Key
1 = Brown
3 = Blue
4 = Black (not used)



Specifications

Supply Voltage and Current

SMW915 Series: 12 V AC/DC to 30 V AC/DC at 50 mA maximum, exclusive of load

SMA915 Series: 90 V AC to 130 V AC (50 Hz to 60 Hz) at 20 mA maximum, exclusive of load

SMB915 Series: 210 V AC to 250 V AC (50 Hz to 60 Hz) at 20 mA maximum, exclusive of load

Exceptions: SMA91E and ESR emitters, which operate from 10 V AC to 250 V AC (50 Hz to 60 Hz) or dc (10 mA maximum)

Supply Protection Circuitry

Protected against transient voltages

Sensing Beam

Opposed, diffuse, glass fiber-optic mode sensors: Infrared, 880 nm

Retroreflective (polarized and non-polarized), convergent, and plastic fiber-optic mode sensors: Visible red, 650 nm

Output Configuration

One internal form C (single-pole double-throw) electromechanical relay

Output Rating

Maximum switching power (resistive load): 150 W, 600 VA

Maximum switching voltage (resistive load): 250 V AC or 30 V DC (120 V AC Maximum per UL and CSA)

Maximum switching current (resistive load): 5 A

Minimum voltage and current: 1 amp at 5 V DC, 0.1 amp at 24 V DC

Peak switching voltage: 750 V AC (transient suppression recommended)

Mechanical life of relay: 10,000,000 operations

Output Protection Circuitry

Protected against false pulse on power-up

Output Response Time

20 milliseconds ON and OFF; independent of signal strength

(NOTE: 100 millisecond delay on power-up; relay de-energized during this time)

Indicators

Top-mounted red LED indicator lights whenever the sensor sees light condition

Models SMA91E and SMA91ESR emitters have visible-red tracer beam, which indicates power on and enables easy line-of-sight alignment

Construction

Reinforced black thermoplastic polyester housing, totally encapsulated, molded acrylic lenses and stainless steel hardware

Environmental Rating

NEMA 1, NEMA 2, NEMA 3, NEMA 3S, NEMA 4, NEMA 4X, NEMA 12, NEMA 13, IP66

Connections

Emitters: 2 m (6.5 ft) unterminated 3-wire PVC-jacketed cable or 9 m (30 ft) unterminated PVC-jacketed cable, or 3-pin Mini-style quick disconnect fitting available.

All Other Sensors: 2 m (6.5 ft) unterminated 3-wire PVC-jacketed cable or 9 m (30 ft) unterminated PVC-jacketed cable, or 5-pin Mini-style quick disconnect fitting available.

Operating Conditions

Temperature: –40 °C to +50 °C (–40 °F to +122 °F)

90% at +50 °C maximum relative humidity (non-condensing)

Applications Notes

Install a transient suppressor (MOV) across any output contact that switches an inductive load

Adjustments

Sensitivity control on the rear of the sensor allows precise gain setting (turn clockwise to increase gain)

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Certifications

Banner Engineering BV
Park Lane, Culliganlaan 2F bus 3
1831 Diegem, BELGIUM

Turck Banner LTD Blenheim House
Blenheim Court
Wickford, Essex SS11 8YT
GREAT BRITAIN

Required Overcurrent Protection

WARNING: Electrical connections must be made by qualified personnel in accordance with local and national electrical codes and regulations.

Overcurrent protection is required to be provided by end product application per the supplied table.

Overcurrent protection may be provided with external fusing or via Current Limiting, Class 2 Power Supply.

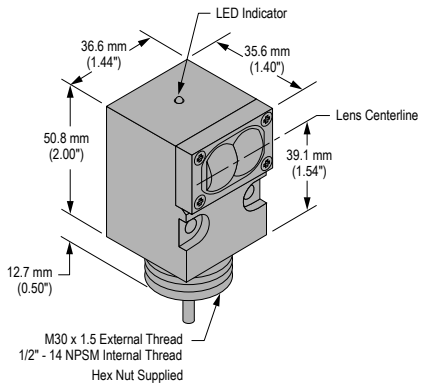
Supply wiring leads < 24 AWG shall not be spliced.

For additional product support, go to www.bannerengineering.com.

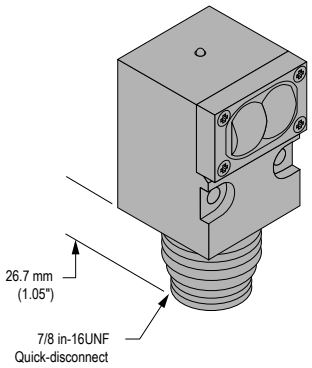
Supply Wiring (AWG)	Required Overcurrent Protection (A)	Supply Wiring (AWG)	Required Overcurrent Protection (A)
20	5.0	26	1.0
22	3.0	28	0.8
24	2.0	30	0.5

Dimensions

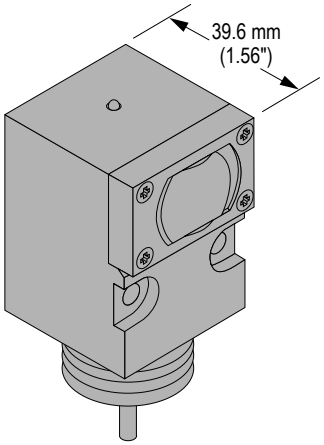
Opposed, Retro, and Diffuse Sensing Modes (model suffix E, ESR, R, LV, D, and DSR) - With Attached Cable



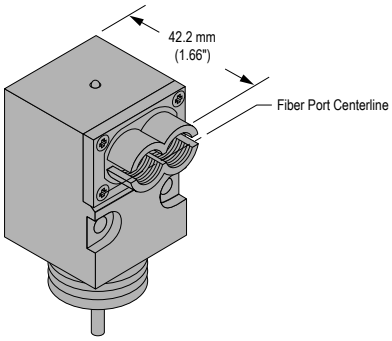
Opposed, Retro, and Diffuse Sensing Modes (model suffix E, ESR, R, LV, D, and DSR) - With Quick Disconnect



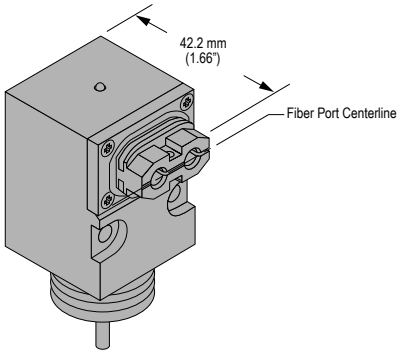
Convergent Sensing Mode (model suffix LVAG and CV)



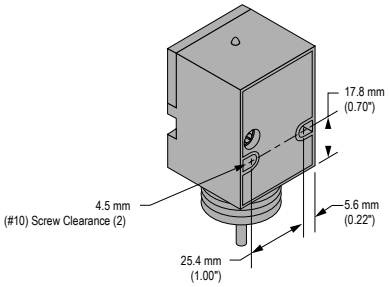
Glass Fiber Optic Models (model suffix F)



Plastic Fiber Optic Models (model suffix FP)



Rear View, All Models



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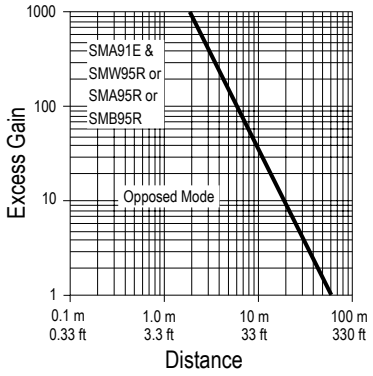
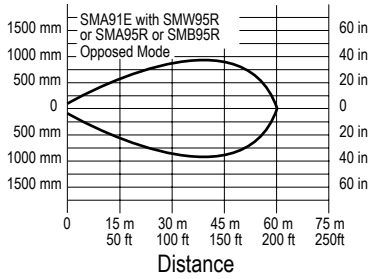
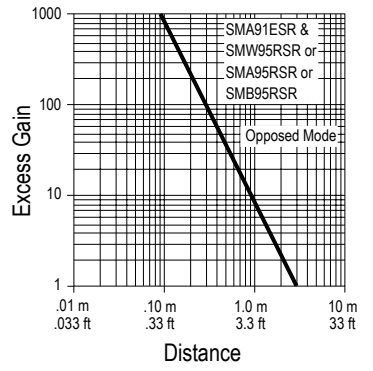
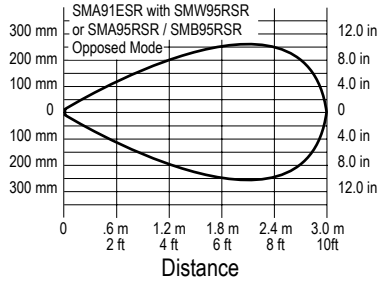
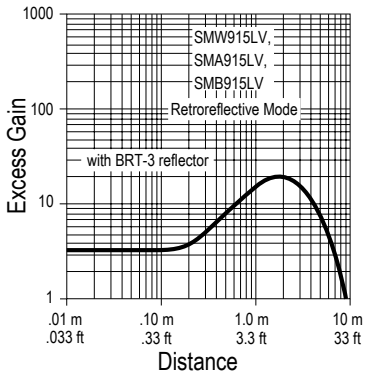
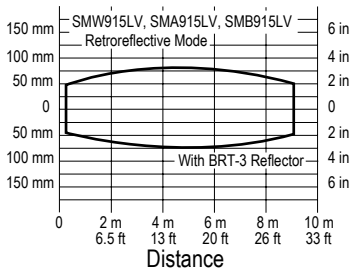
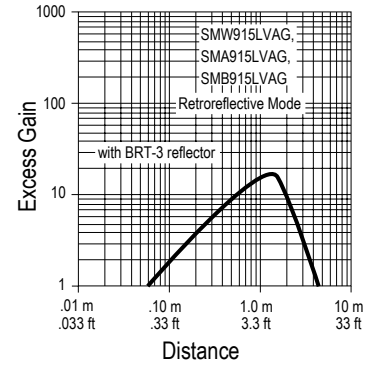
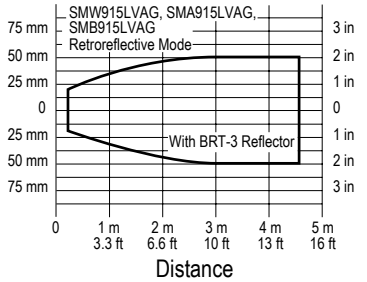
Performance Curves

Mode	Excess Gain	Beam Pattern
Opposed		 Effective Beam: 13 mm
Opposed (ESR and RSR models)		 Effective Beam: 3.5 mm
Retroreflective (Non-polarized)		
Retroreflective (Polarized)		

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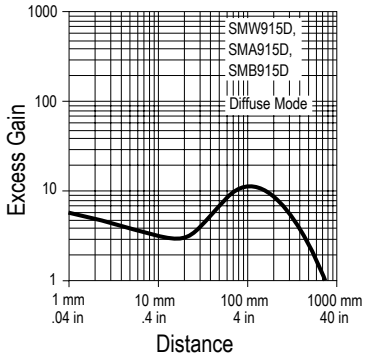
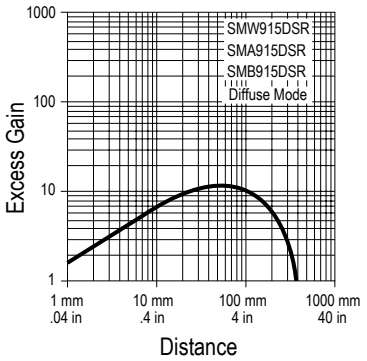
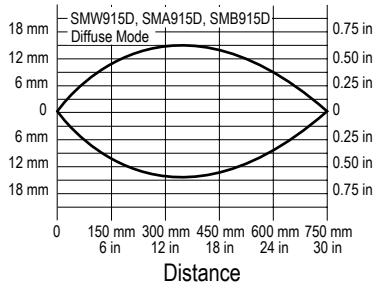
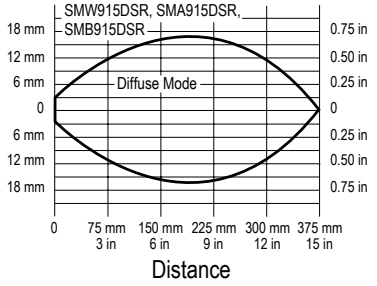
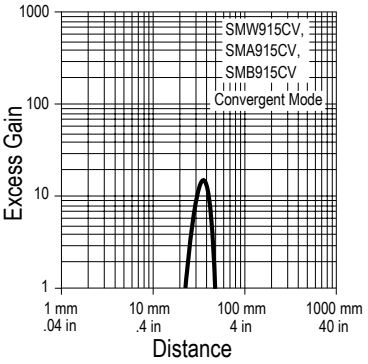
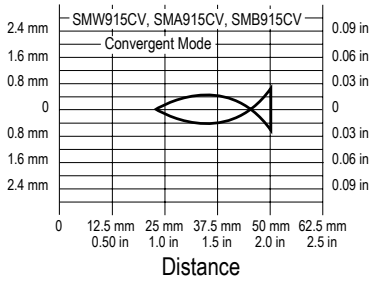
Mode	Excess Gain	Beam Pattern
Diffuse	  Performance based in 90% reflectance white test card	  Performance based in 90% reflectance white test card
Convergent	 Performance based in 90% reflectance white test card	 Performance based in 90% reflectance white test card

Continued on page 8

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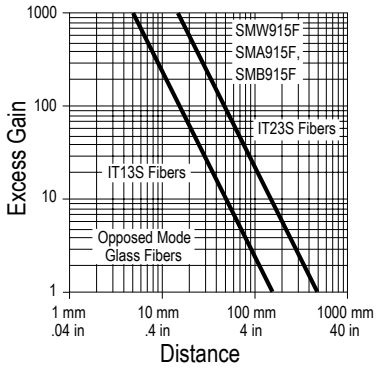
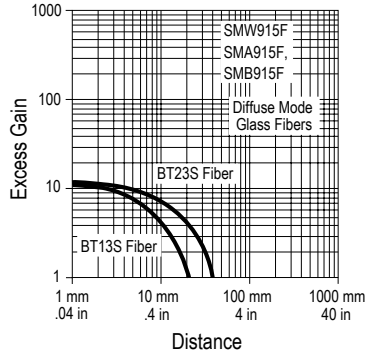
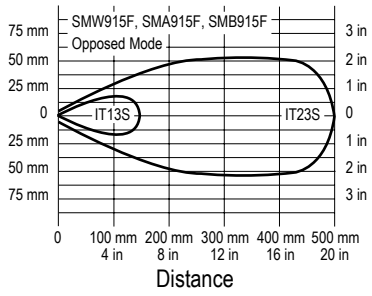
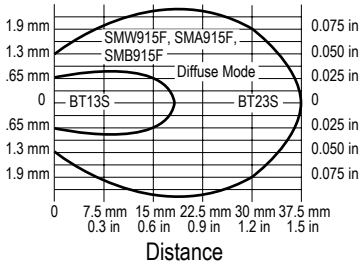
Continued from page 7

Mode	Excess Gain	Beam Pattern
Glass Fiber Optic Sensors	  Performance based in 90% reflectance white test card	  Performance based in 90% reflectance white test card

Continued on page 9

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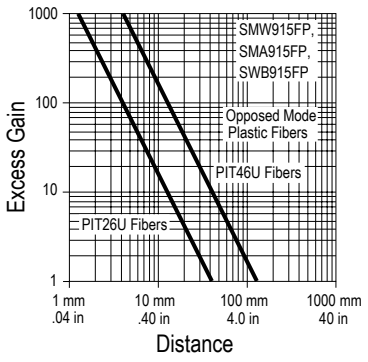
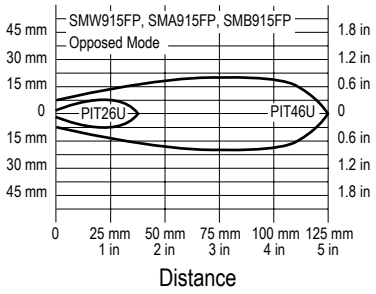
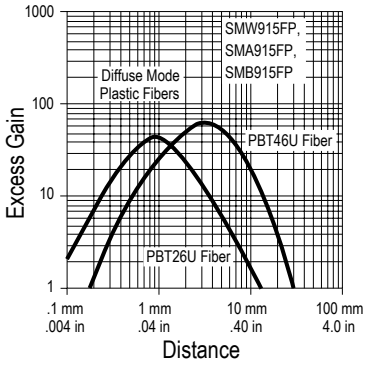
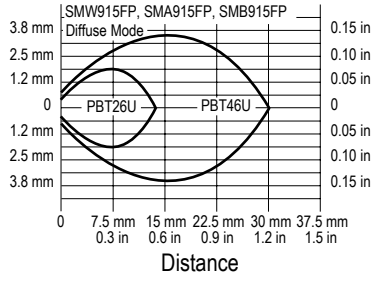
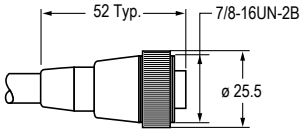
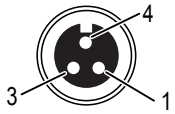
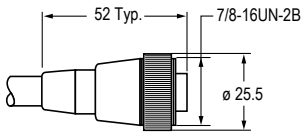
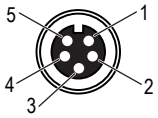
Continued from page 8

Mode	Excess Gain	Beam Pattern
Plastic Fiber Optic Sensors		
		
	Performance based in 90% reflectance white test card	Performance based in 90% reflectance white test card

Accessories

Quick Disconnect Cables

3-pin Single-Ended Mini Female Cordsets				
Model	**Length**	**Style**	**Dimensions**	**Pinout (Female)**
MBCC-306	1.83 m (6 ft)	Straight		 1 = Brown 3 = Blue 4 = Black
MBCC-312	3.66 m (12 ft)			
MBCC-330	9.14 m (30 ft)			

5-Pin Single-Ended Mini Female Cordsets				
Model	**Length**	**Style**	**Dimensions**	**Pinout (Female)**
MBCC-506	1.83 m (6 ft)	Straight		 1 = Black 2 = Blue 3 = Yellow 4 = Brown 5 = White
MBCC-512	3.66 m (12 ft)			
MBCC-530	9.14 m (30 ft)			

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Cabling Accessories

Model	Description	
AC-6	2 m (6.5 ft) armored cable jacket	I.D. 5/16-in; O.D. 7/16-in
PVC-6	2 m (6.5 ft) flexible PVC tubing (not for QD models)	I.D. 1/4-in; O.D. 3/8-in
RF1-2NPS	Compression fitting for attaching armored cable or PVC tubing	–
HF1-2NPS	• Flexible black nylon cable protector • Includes a neoprene gland that compresses around the VALU-BEAM cable to provide an additional seal against moisture • Resistant to gasoline, alcohol, oil, grease, solvents and weak acids • Working temperature range of –30 °C to +100 °C (–22 °F to +212 °F)	

Extension Cables (without connectors)

The following cables are available for extending the length of existing sensor cable. These are 30 m (100 ft) lengths of VALU-BEAM cable. This cable may be spliced to existing cable. Connectors, if used, must be user-supplied.

Model	Type	Used With:
EC312A-100	2-conductor	For all emitters
EC915-100	5-conductor	915 Series sensors other than emitters

Replacement Lens Assemblies

VALU-BEAM lens assemblies are field-replaceable. In addition, some lenses may be used to convert from one sensing mode to another, or to change the sensing range of a particular sensor. The possible conversions are listed in the table below.

Models	Description	Possible Sensing Mode or Range Changes
UC-900AG	Replacement lens for LVAG	Change LV to LVAG
UC-900C	Replacement lens for C and CV	Change LV to CV
UC-900DSR	Replacement lens for DSR, ESR, and RSR	Change D or F to DSR, EF to ESR, and RF to RSR
UC-900F	Replacement lens for F	Change D to F and DSR to F
UC-900FP	Replacement lens for FP	–
UC-900L	Replacement lens for E, R, LV, and D	Change LVAG to LV, CV to LV, DSR to D, and F to D
UC-900J	Attach to E, R, ESR, RSR, LV, and D models	Flat polycarbonate dust cover

Retroreflective Tape

Model	Reflectivity Factor	Maximum Temperature	Size
BRT-THG-3X3-10	0.7	+60 °C (+140 °F)	75 × 75 mm (package of 10)
BRT-THG-4X4-5	0.7	+60 °C (+140 °F)	100 × 100 mm (package of 5)
BRT-THG-8.5X11-2	0.7	+60 °C (+140 °F)	216 × 280 mm (package of 2)
BRT-THG-18X36	0.7	+60 °C (+140 °F)	457 × 914 mm (single sheet)
BRT-THG-1-100	0.7	+60 °C (+140 °F)	25 mm (1 in) wide, 2.5 m (100 in) long
BRT-THG-2-100	0.7	+60 °C (+140 °F)	50 mm (2 in) wide, 2.5 m (100 in) long
BRT-THG-3-100	0.7	+60 °C (+140 °F)	75 mm (3 in) wide, 2.5 m (100 in) long

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Model	Reflectivity Factor	Maximum Temperature	Size
BRT-THT-100 [1]	0.07	+175 °C (+347 °F)	25 mm wide, 2.5 m (100 in) long

Retroreflective Targets



The range of all retroreflective sensors is specified using target model BRT-3. Sensing range and signal strength at any given sensor-to-target distance will vary due to target reflectivity and target area. A “Reflectivity Factor” is included for each target model to help predict sensor performance, relative to the excess gain curve plotted for target model BRT-3. Consider, also, target area when predicting performance.

* Optional brackets are available; see http://www.bannerengineering.com.

Round retroreflectors

Model	Reflectivity Factor	Maximum Temperature	Size
BRT-6	1.0	+60 °C (+140 °F)	20.3 mm diameter
BRT-1	1.0	+60 °C (+140 °F)	25 mm diameter
BRT-1.5	1.0	+60 °C (+140 °F)	46 mm diameter
BRT-2B	1.0	+65 °C (+150 °F)	60.5 mm diameter
BRT-3 *	1.0	+60 °C (+140 °F)	84 mm diameter
BRT-25R	1.0	+60 °C (+140 °F)	25.2 mm diameter
BRT-41AHT	1.0	+200 °C (+390 °F)	74 mm diameter
BRT-42A	1.0	+60 °C (+140 °F)	42 mm diameter
BRT-42D	1.0	+60 °C (+140 °F)	42 mm diameter
BRT-50	1.0	+60 °C (+140 °F)	50.8 mm diameter
BRT-50D *	1.0	+60 °C (+140 °F)	50.8 mm diameter
BRT-50R *	1.0	+60 °C (+140 °F)	50.8 mm diameter

* Optional brackets are available; see http://www.bannerengineering.com.

Square retroreflectors

Model	Reflectivity Factor	Maximum Temperature	Size
BRT-2X2	1.0	+50 °C (+120 °F)	61 mm × 51 mm
BRT-77X77C *	2.0	+60 °C (+140 °F)	84.5 mm × 84.5 mm
BRT-92X92C *	3.0	+60 °C (+140 °F)	100 mm × 100 mm
BRT-4HT * (This target has micro-prism geometry.)	0.15	+480 °C (+900 °F)	100 mm × 100 mm

* Optional brackets are available; see http://www.bannerengineering.com.

Miscellaneous retroreflectors

Model	Reflectivity Factor	Maximum Temperature	Size
BRT-35X20A	1.4	+60 °C (+140 °F)	23.5 mm × 55 mm
BRT-40X18A	1.0	+60 °C (+140 °F)	18 mm × 60 mm
BRT-40X23	1.4	+60 °C (+140 °F)	23.5 mm × 40 mm
BRT-40X23B	1.4	+60 °C (+140 °F)	23.5 mm × 47.5 mm
BRT-48X32	1.0	+60 °C (+140 °F)	32.5 mm × 48 mm
BRT-48X32A	1.0	+60 °C (+140 °F)	32 mm × 65 mm

Continued on page 12

[1] These targets are not recommended for polarized retroreflective sensors.

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Continued from page 11

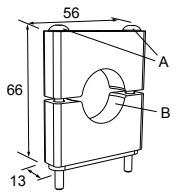
Model	Reflectivity Factor	Maximum Temperature	Size
BRT-48X32B	1.0	+60 °C (+140 °F)	32.5 mm × 57 mm
BRT-53X19A	1.4	+60 °C (+140 °F)	19 mm × 72 mm
BRT-60X40C *	1.4	+60 °C (+140 °F)	40.5 mm × 60 mm
BRT-100X18A	1.4	+60 °C (+140 °F)	18.5 mm × 120 mm
BRT-100X50	1.5	+60 °C (+140 °F)	101 mm × 50.6 mm
BRT-100X55A	1.5	+60 °C (+140 °F)	132 mm × 56 mm
BRT-L	0.8	+65 °C (+150 °F)	165 mm × 19 mm

MINI-BEAM Mounting Brackets

SMB30C

- 30 mm split clamp, black PBT bracket
- Stainless steel mounting hardware included
- Mounting hole for 30 mm sensor
- CAD Files: DXF, PDF, IGS, STP

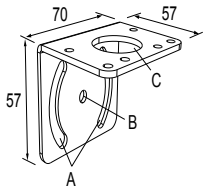
Hole center spacing: A=ø 45
Hole size: B=ø 27.2



SMB30MM

- 12-gauge stainless steel bracket with curved mounting slots for versatile orientation
- Clearance for M6 (¼ in) hardware
- Mounting hole for 30 mm sensor
- CAD Files: DXF, PDF, IGS, STP

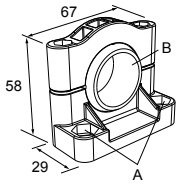
Hole center spacing: A=51, A to B=25.4
Hole size: A=42.6 × 7, B=ø 6.4, C=ø 30.1



SMB30SC

- Swivel bracket with 30 mm mounting hole for sensor
- Black reinforced thermoplastic polyester
- Stainless steel mounting and swivel locking hardware included
- CAD Files: DXF, PDF, IGS, STP

Hole center spacing: A=ø 50.8
Hole size: A=ø 7.0, B=ø 30.0



Product Support and Maintenance

Discontinued Models

The following models are no longer available for order but are still covered by the information in this document.

Opposed mode emitters and receivers

Models	Cable	Supply Voltage	Range
SMW95R W/30	9 m cable	**Receiver:** 12 V AC/DC to 28 V AC/DC	60 m (200 ft)
SMA95R W/30	9 m cable	**Receiver:** 90 V AC to 130 V AC	
SMB95R W/30	9 m cable	**Receiver:** 210 V AC to 250 V AC	

Models	Connection	Supply Voltage	Range
SMW95RSR W/30	9 m cable	**Receiver:** 12 V DC to 28 V DC	3 m (10 ft)
SMA95RSR W/30	9 m cable	**Receiver:** 90 V AC to 130 V AC	
SMB95RSR	2 m cable	**Receiver:** 210 V AC to 250 V AC	
SMB95RSR W/30	9 m cable		
SMB95RSRQD	5-pin Mini quick disconnect		

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Non-polarized retroreflective mode models

Models	Connection	Supply Voltage	Range
SMA915LV W/30	9 m cable	90 V AC to 130 V AC	0.15 m to 9 m (6 in to 30 ft)
SMB915LV	2 m (6.5 ft) cable	210 V AC to 250 V AC	
SMB915LV W/30	9 m cable		
SMB915LVQD	5-pin Mini Quick-Disconnect		

Polarized retroreflective mode models

Models	Connection	Supply Voltage	Range
SMW915LVAG	2 m (6.5 ft) cable	12 V AC/DC to 28 V AC/DC	0.3 m to 4.5 m (1 ft to 15 ft)
SMW915LVAG W/30	9 m cable		
SMW915LVAGQD	5-pin Mini quick-disconnect		
SMA915LVAG W/30	9 m cable	90 V AC to 130 V AC	
SMB915LVAG	2 m (6.5 ft) cable	210 V AC to 250 V AC	
SMB915LVAG W/30	9 m cable		
SMB915LVAGQD	5-pin Mini quick-disconnect		

Diffuse mode models

Models	Connection	Supply Voltage	Range
SMW915D	2 m (6.5 ft) cable	12 V AC/DC to 28 V AC/DC	760 mm (30 in)
SMW915D W/30	9 m cable		
SMA915D W/30	9 m cable	90 V DC to 130 V DC	
SMB915D	2 m (6.5 ft) cable	210 V AC to 250 V AC	
SMB915D W/30	9 m cable		
SMB915DQD	5-pin Mini quick disconnect		
SMW915DSR W/30	9 m cable	12 V AC/DC to 28 V AC/DC	380 mm (15 in)
SMA915DSR W/30	9 m cable	90 V AC to 130 V DC	
SMA915DSRQD	5-pin Mini quick disconnect		
SMB915DSR	2 m (6.5 ft) cable	210 V AC to 250 V AC	
SMB915DSR W/30			
SMB915DSRQD	5-pin Mini quick disconnect		

Convergent mode models

Models	Connection	Supply Voltage	Focus
SMW915CV	2 m (6.5 ft) cable	12 V AC/DC to 28 V AC/DC	38 mm (1.5 in) **Spot Size at Focus:** 1.5 mm (0.06 in)
SMW915CV W/30	9 m cable		
SMW915CVQD	5-pin Mini quick disconnect		
SMA915CV	2 m (6.5 ft) cable	90 V AC to 130 V AC	
SMA915CV W/30	9 m cable		
SMB915CV	2 m (6.5 ft) cable	210 V AC to 250 V AC	
SMB915CV W/30	9 m cable		
SMB915CVQD	5-pin Mini quick disconnect		

Glass fiber-optic sensor models

Models	Connection	Supply Voltage	Range
SMW915F W/30	9 m cable	12 V AC/DC to 28 V AC/DC	Range varies by sensing mode and fiber used
SMA915FQD	5-pin Mini quick disconnect	90 V AC to 30 V AC	
SMB915F	2 m (6.5 ft) cable	210 V AC to 250 V AC	
SMB915F W/30	9 m cable		
SMB915FQD	5-pin Mini quick disconnect		

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Plastic fiber-optic sensor models

Models	Connection	Supply Voltage	Range
SMW915FP	2 m (6.5 ft) cable	12 V AC/DC to 28 V AC/DC	Range varies by sensing mode and fiber used
SMW915FP W/30	9 m cable		
SMW915FPQD	5-pin Mini quick disconnect		
SMA915FP	2 m (6.5 ft) cable	90 V AC to 130 V AC	
SMA915FP W/30	9 m cable		
SMA915FPQD	5-pin Mini quick disconnect		
SMB915FP	2 m (6.5 ft) cable	210 V AC to 250 V AC	
SMB915FP W/30	9 m cable		
SMB915FPQD	5-pin Mini quick disconnect		

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