

MAXI-BEAM Sensor Heads

Sensing Mode

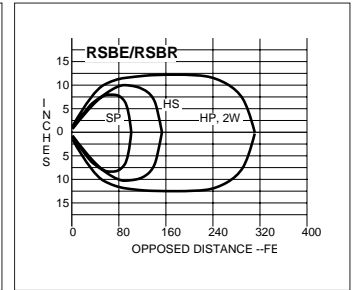
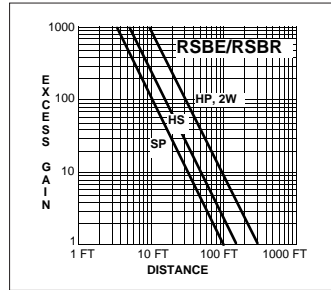
Models

Excess Gain

Beam Pattern



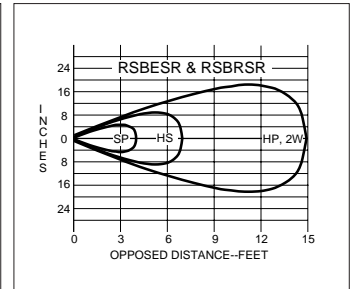
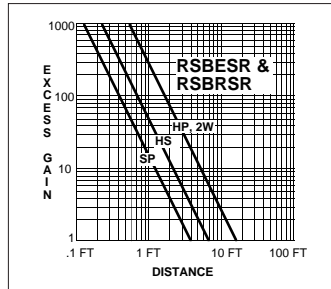
RSBE & RSBR
Range: 300 feet (90 m) in "HP" (high power) and 2W (2 wire) modes
Beam: infrared, 880nm; visible red tracer beam
Effective Beam: 0.5" dia.
Response:
 HP, 2W mode: 10ms on/5 off
 HS mode: 1ms on/0.5 off
 SP mode: 0.3ms on/off
Repeatability: HP, 2W= 1.4ms; HS = 0.1ms; SP = 0.04ms



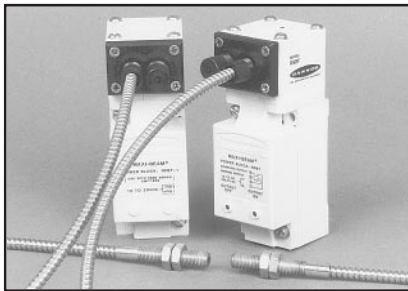
OPPOSED Mode



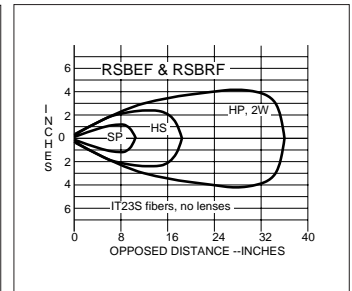
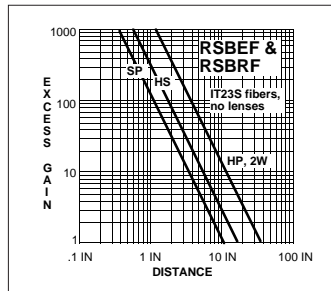
RSBESR & RSBRSR
Range: 15 feet (4.5m) in "HP" (high power) and 2W (2 wire) modes
Beam: infrared, 880nm
Response:
 HP, 2W modes: 10ms on/5 off
 HS mode: 1ms on/0.5 off
 SP mode: 0.3ms on/off
Repeatability: HP, 2W= 1.4ms; HS = 0.1ms; SP = 0.04ms



MAXI-BEAM emitters have a visible red "tracer beam". This beam is non-active, and is used as a means of visual alignment during installation. A retroreflector temporarily attached to the receiver lens provides an effective target for the tracer beam during alignment. The narrow beam of the RSBESR/RSBRSR pair is ideal for sensing small parts (effective beam diameter is 0.14 inch).



RSBEF & RSBRF
Range: see excess gain curves
Beam: infrared, 880nm.
Response:
 HP, 2W modes: 10ms
 HS mode: 1ms
 SP mode: 0.3ms on/off
Repeatability: HP, 2W= 3.3ms; HS = 0.3ms; SP = 0.1ms

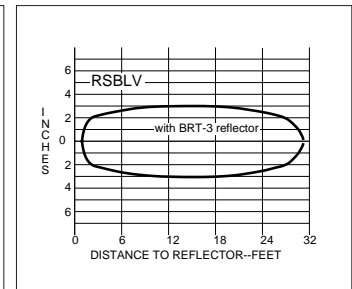
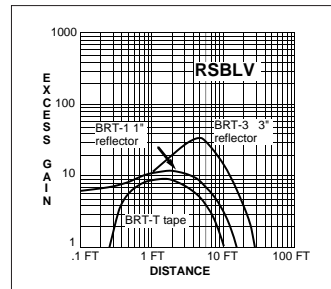


OPPOSED FIBER OPTIC Mode (glass fibers)

This sensor pair is designed for opposed mode operation using Banner glass fiber optics. Maximum range (HP mode) using L9 lenses is 12 feet. Maximum range using L16F lenses is 50 feet.



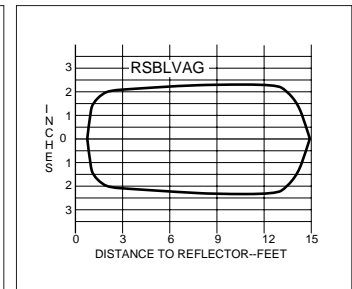
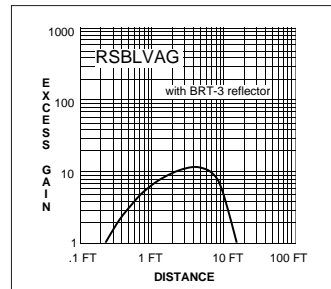
RSBLV
Range: 6 inches to 30 feet (9 m) in all program modes
Beam: visible red, 650nm
Response:
 HP, 2W, SP modes: 4ms
 HS mode: 1ms
Repeatability:
 HP, 2W, SP = 1.3ms; HS = 0.3ms



RETROREFLECTIVE Mode



RSBLVAG
 (anti-glare filter)
Range: 1 to 15 feet (4.5 m) in all program modes
Beam: visible red, 650nm; with polarizing filter
Response:
 HP, 2W, SP modes: 4ms
 HS mode: 1ms
Repeatability: HP, 2W, SP = 1.3ms; HS = 0.3ms



MAXI-BEAM Sensor Heads

Sensing Mode

Models

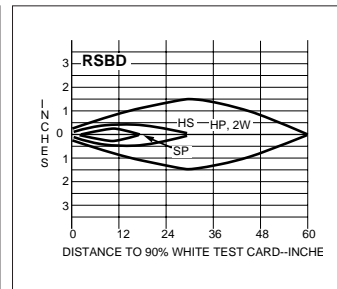
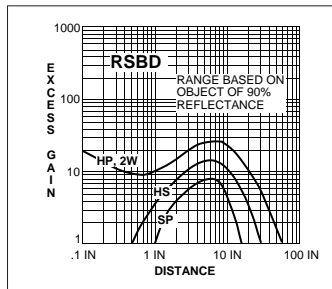
Excess Gain

Beam Pattern



RSBD

Range: 5 feet (1.5 m) in HP and 2W modes
Beam: infrared, 880nm
Response:
 HP, 2W modes: 10ms
 HS mode: 1ms
 SP mode: 0.3ms
Repeatability: HP, 2W= 3.3ms; HS = 0.3ms; SP = 0.1ms



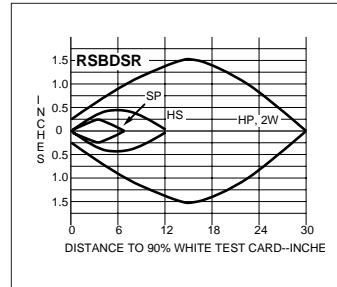
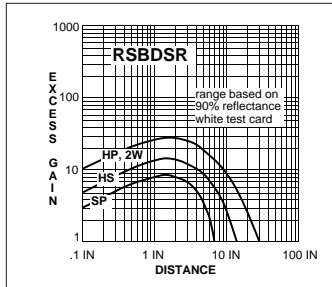
DIFFUSE Mode



RSBDSR

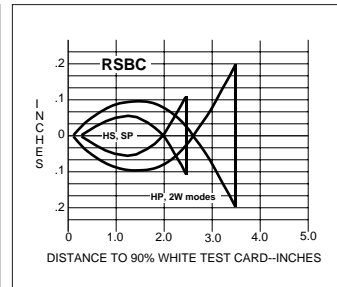
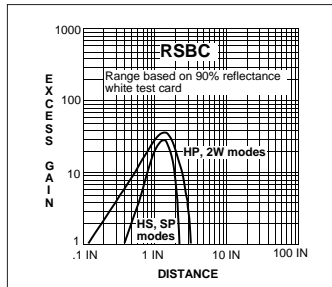
(short range)

Range: 30 inches (76cm) in HP and 2W modes
Beam: infrared, 880nm
Response:
 HP, 2W modes: 10ms
 HS mode: 1ms
 SP mode: 0.3ms
Repeatability: HP, 2W= 3.3ms; HS = 0.3ms; SP = 0.1ms



RSBC

Focus at 1.5 in. (38mm)
Beam: infrared, 940nm
Response:
 HP, 2W modes: 10ms
 HS mode: 1ms
 SP mode: 0.3ms
Repeatability:
 HP, 2W= 3.3ms; HS = 0.3ms; SP = 0.1ms

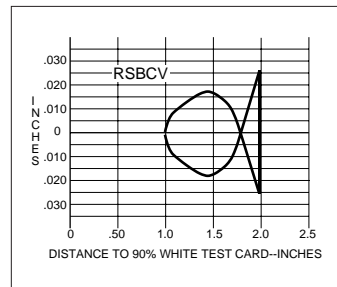
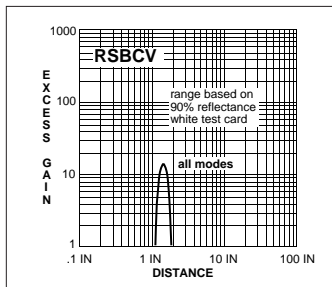


CONVERGENT Mode



RSBVC

Focus at 1.5 in. (38mm); performance equal in all program modes.
Beam: visible red, 650nm.
Response:
 HP, 2W, SP modes: 4ms
 HS mode: 1ms
Repeatability:
 HP, 2W, SP= 1.3ms; HS = 0.3ms



Powerful infrared beam reliably senses objects of low reflectivity. Ideal for counting the flow of radiused products at a fixed distance from the sensor.

Powerful visible red beam detects small objects only a fraction of an inch away from backgrounds. Useful in many high-contrast color registration applications.

FIXED-FIELD Mode



RSBFF models

Far limit cutoff at: 50mm (model RSBFF50) or 100mm (model RSBFF100)
Beam: infrared, 880nm.
Response:
 HP mode: 10ms
Repeatability:
 HP mode: 3.3ms

Fixed-field sensor heads have an emitter element and two differently-aimed receiver elements. This creates a high-gain sensing field able to detect objects of low reflectivity, and a sharp far-limit sensing cutoff of 50mm (2 inches) or 100mm (4 inches) which ignores backgrounds beyond cutoff.

These sensors are ideal for detecting a part or surface that is only a fraction of an inch in front of another surface.

RSBFFs may not be used with 2-wire power blocks.

