

# MULTI-BEAM 2-wire Scanner Blocks

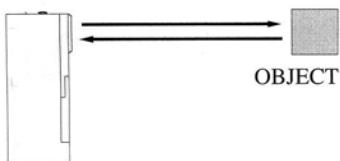
## Sensing Mode

## Models

## Excess Gain

## Beam Pattern

### DIFFUSE Mode



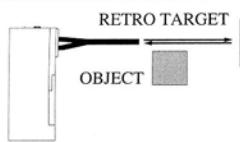
**Models 2SBD1 and 2SBDX1** diffuse (proximity) mode scanner blocks are identical except for their lenses. Model 2SBD1 uses upper cover model UC-D, and the 2SBDX1 uses UC-L. While the UC-L lens extends the range to over 30 inches, it creates a "dip" in the excess gain at closer ranges. As a result, the 2SBDX1 may sense a dark colored object at 10 inches, but it may not see it at all at 2 inches. If the application is not completely defined, either scanner block may be ordered, along with the complementary upper cover as an accessory.

### FIBER OPTIC Mode (glass fibers)

#### OPPOSED MODE



#### RETROREFLECTIVE MODE



#### DIFFUSE MODE



The following fiber optic cables and lenses are commonly used with the model 2SBF1 scanner block:

**IT13S:** individual assembly, .06 inch (1.5 mm) diameter fiber bundle

**IT23S:** individual assembly, .12 inch (3 mm) diameter fiber bundle

**BT13S:** bifurcated assembly, .06 inch (1.5 mm) diameter fiber bundles

**BT23S:** bifurcated assembly, .12 inch (3 mm) diameter fiber bundles

**L9:** 0.5 inch (12 mm) diameter lens

**L16F:** 1.0 inch (25 mm) diameter lens

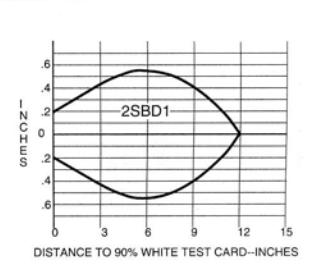
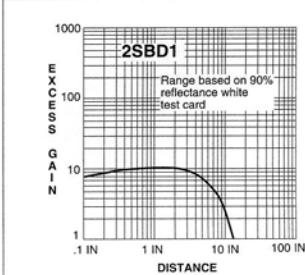
### 2SBD1

**Range:** 12 inches (30cm)

**Response:** 10ms on/off

**Repeatability:** 2.5ms

**Beam:** infrared, 880nm



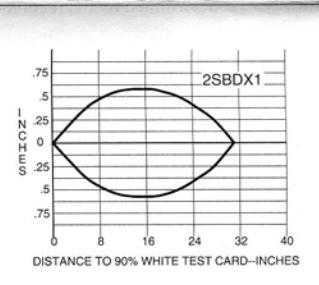
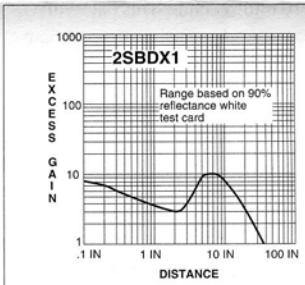
### 2SBDX1

**Range:** 30 inches (76cm)

**Response:** 10ms on/off

**Repeatability:** 2.5ms

**Beam:** infrared, 880nm



### 2SBF1

**Range:** see E.G. curves

**Response:** 10ms on/off

**Repeatability:** 2.5ms

**Beam:** infrared, 880nm

Scanner block 2SBF1 combines the simplicity of 2-wire hookup with the sophistication and versatility of optical fibers. The infrared source of this model will work with any Banner *glass* fiber optic assembly, except bifurcated assemblies with bundle diameters less than 1/16". Since fibers are frequently used for sensing small parts, fast response time is often a consideration. If the application requires response near the 10 millisecond specification of the 2SBF1, consider the faster 3- & 4-wire model SBF1.

*For complete information on glass fiber optic assemblies, see the Banner product catalog.*

