

# Standard OMNI-BEAM Sensor Heads

## Sensing Mode and Models

## Excess Gain

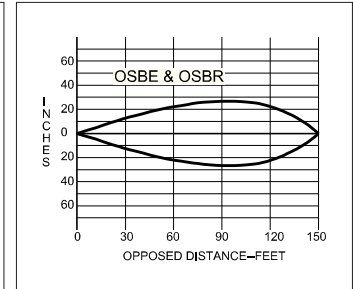
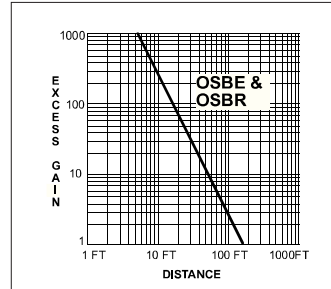
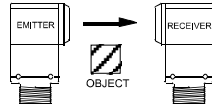
## Beam Pattern

### OPPOSED Mode



#### OSBE & OSBR

**Range:** 150 feet (45m)  
**Beam:** infrared, 880nm  
**Response:** 2ms  
**Repeatability:** 0.01ms  
**Effective Beam:** 1" dia.

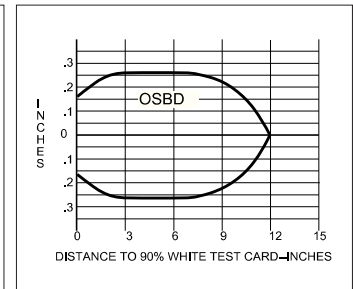
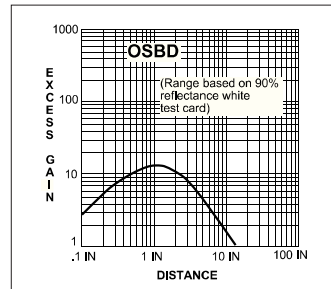
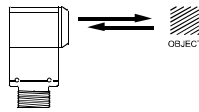


### HIGH-SPEED DIFFUSE (PROXIMITY) Mode



#### OSBD

**Range:** 12 inches (30cm)  
**Beam:** infrared, 880nm  
**Response:** 2ms  
**Repeatability:** 0.1ms

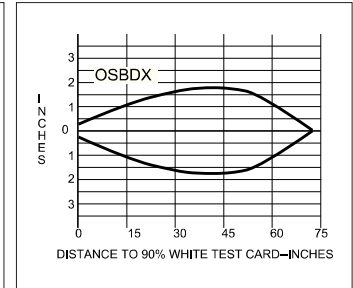
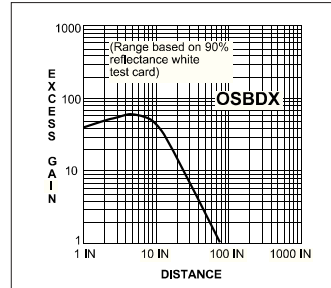


### HIGH-POWER DIFFUSE (PROXIMITY) Mode

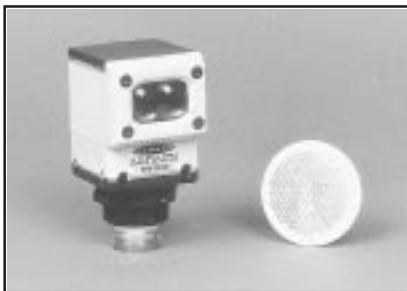
Diffuse (proximity) mode sensors detect objects by sensing their own emitted light reflected from the object. They are ideal for use when the reflectivity and profile of the object to be detected are sufficient to return a large percentage of emitted light back to the sensor. Model OSBDX is the first choice for diffuse (proximity) mode applications when there is no requirement for less than 15ms response and where there are no background objects to falsely return light.

#### OSBDX

**Range:** 6 feet (2m)  
**Beam:** infrared, 880nm  
**Response:** 15ms  
**Repeatability:** 1ms

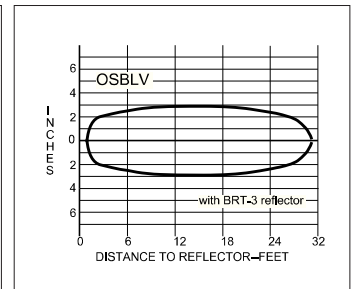
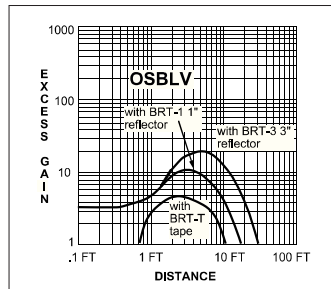
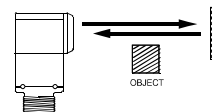


### RETROREFLECTIVE Mode



#### OSBLV

**Range:** 6 inches to 30 feet  
 (0,15 to 9m)  
**Beam:** visible red, 650nm  
**Response:** 4ms  
**Repeatability:** 0.2ms



### POLARIZED RETRO Mode

The *visible red sensing beam* of these retroreflective sensors makes them very easy to align. The "AG" (anti-glare) model polarizes the emitted light and filters out unwanted reflections, making sensing possible in applications otherwise considered unsuited to retroreflective sensing. Use "AG" models only in very clean environments, and use with the model BRT-3 3" reflector. NOTE: for detailed information on retroreflective targets, see the Banner product catalog.

#### OSBLVAG

**Range:** 12 inches to 15 feet  
 (0,3 to 4,5m)  
**Beam:** visible red, 650nm  
**Response:** 4ms  
**Repeatability:** 0.2ms

