

Standard OMNI-BEAM Sensor Heads

Sensing Mode and Models

Excess Gain

Beam Pattern

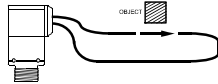


HIGH-POWER FIBER OPTIC Mode (glass fibers)

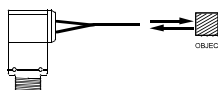
OSBFX

Range: see excess gain curves
Beam: infrared, 880nm
Response: 15ms
Repeatability: 1ms

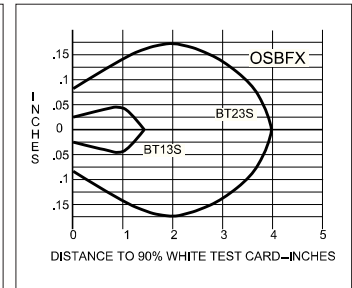
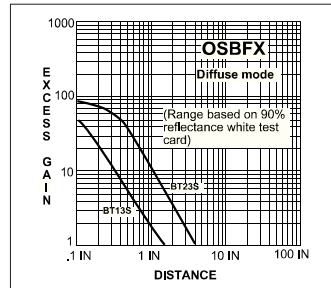
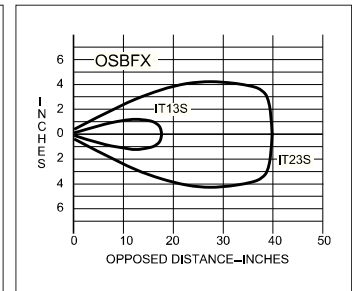
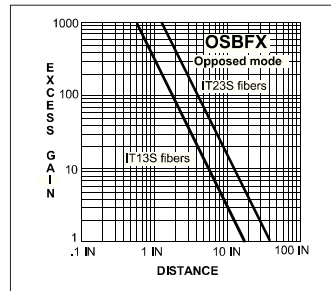
Opposed Mode



Diffuse Mode



Model OSBFX is the first choice for glass fiber optic applications, except in fiber optic retro-reflective applications or where faster response speed or visible light are a requirement. Excess gain is the highest available in the photoelectric industry. As a result, opposed individual fibers operate reliably in many very hostile environments. Also, special miniature bifurcated fiber optic assemblies with bundle sizes as small as .020 inch (.5mm) in diameter may be used successfully for diffuse mode sensing. The excess gain curves and beam patterns illustrate response with standard .060 inch (1.5mm) diameter and .12 inch (3mm) diameter bundles. Response for smaller or larger bundle sizes may be interpolated.

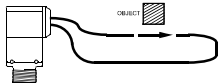


VISIBLE-LIGHT FIBER OPTIC Mode (glass fibers)

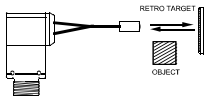
OSBFV

Range: see excess gain curves
Beam: visible red, 650
Response: 2ms
Repeatability: 0.1ms

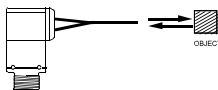
Opposed Mode



Retroreflective Mode



Diffuse Mode



Model OSBFV is a visible-light version of the model OSBF. It is compatible with Banner individual and bifurcated glass fiber optic assemblies.

The visible red light source of the OSBFV increases optical contrast in many sensing situations, which makes it particularly useful for most applications involving diffuse-mode color registration sensing. (An important exception is applications involving red-on-white contrasts, which require a green light source.)

The OSBFV is also well suited to presence sensing of translucent materials and registration mark sensing on clear webs in the opposed mode, and for code-reading and/or short-range or narrow-beam sensing in the retroreflective mode.

