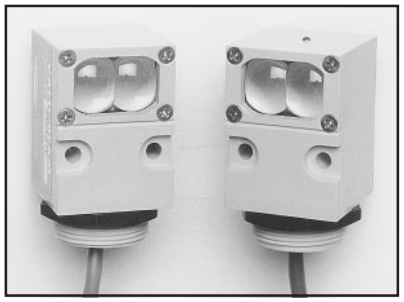
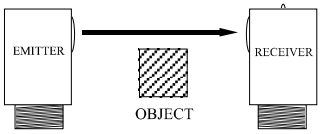
VALU-BEAM 912 Series Sensors

Sensing Mode | *Models* | *Excess Gain* | *Beam Pattern*



OPPOSED Mode



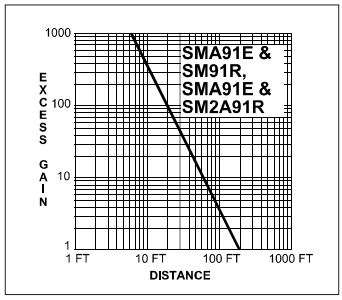
Repeatability: 1.0ms (all models)

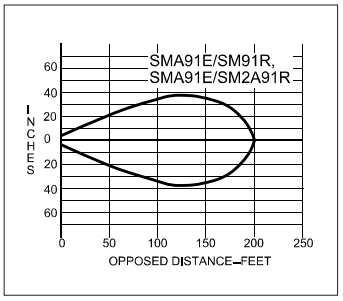
SMA91E & SM91R
Voltage: 10 to 30V dc, ("E": 10-250V ac/dc)
Range: 200 feet (60 m)
Response: 8ms on/4 off
Beam: infrared, 880nm; visible red tracer beam
Effective beam: 0.5" dia.

SMA91E &SM2A91R
Voltage: 24 to 250V ac, ("E": 10-250V ac/dc)
Range: 200 feet (60 m)
Response: 8ms on/4 off
Beam: infrared, 880nm
Effective beam: 0.5" dia.

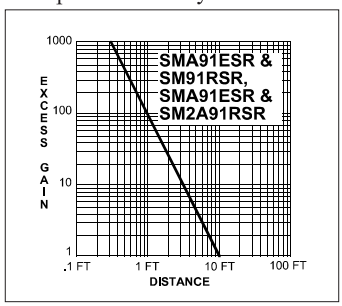
SMA91ESR & SM91RSR
Voltage: 10 to 30V dc, ("ESR": 10-250V ac/dc)
Range: 10 feet (3 m)
Response: 8ms on/4 off
Beam: infrared, 880nm
Effective beam: 0.14" dia.

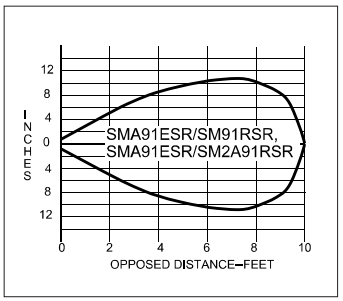
SMA91ESR & SM2A91RSR
Voltage: 24 to 250V ac
Range: 10 feet (3 m)
Response: 8ms on/4 off
Beam: infrared, 880nm
Effective beam: 0.14" dia.

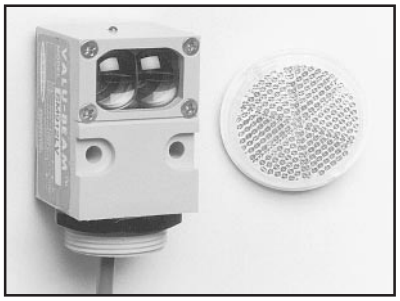




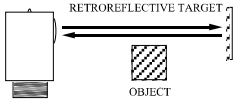
Opposed mode sensors have higher excess gain than other models, and therefore should be used whenever possible. The small size of these sensors makes them ideal for many conveyor applications, and their small effective beam size (particularly of the ESR/RSR models) enables them to reliably detect relatively small objects. VALU-BEAM opposed mode sensors have a visible red "tracer beam" which greatly simplifies sensor alignment. ESR/RSR models have a *wide* beam angle for very forgiving alignment within the 10 foot range. E/R models have a *narrow* beam spread and should be used when it is important to minimize optical "crosstalk" between adjacent emitter-receiver pairs at close range in multiple sensor arrays.



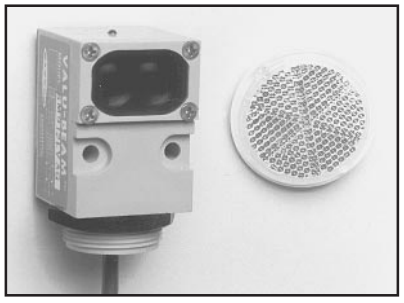




RETROREFLECTIVE



Repeatability:
1.3ms (dc models); 2.6ms (ac models)

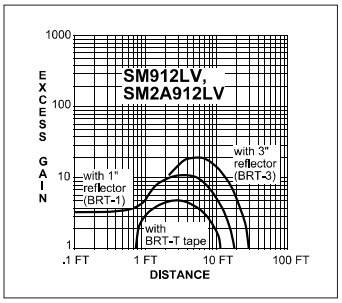


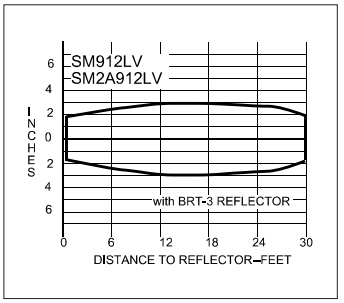
SM912LV
Voltage: 10 to 30V dc
Range: 6 inches to 30 feet (9 m)
Response: 4ms on/off
Beam: visible red, 650nm

SM2A912LV
Voltage: 24 to 250V ac
Range: 6 inches to 30 feet (9 m)
Response: 8ms on/off
Beam: visible red, 650nm

SM912LVAG
(anti-glare filter)
Voltage: 10 to 30V dc
Range: 1 to 15 feet (4,5 m)
Response: 4ms on/off
Beam: visible red, 650nm (with polarizing filter)

SM2A912LVAG
(anti-glare filter)
Voltage: 24 to 250V ac
Range: 1 to 15 feet (4,5 m)
Response: 8ms on/off
Beam: visible red, 650nm (with polarizing filter)





A visible-red light beam reduces the potential for false signals from highly reflective objects ("proxing") and simplifies alignment. *AG (anti-glare) models polarize the emitted light and filter out unwanted reflections,* making their use possible in applications otherwise unsuited to retroreflective sensing (when reduced excess gain is acceptable). Maximum range with "LV" units is attained when using the model BRT-3 3" corner cube reflector. For details on retroreflective target materials, see the Banner product catalog.