

Optical Block Selection



Type O4
Proximity
Wide beam optics useful for short-range sensing of transparent, translucent or irregular shaped shiny objects.



Type O5
Proximity
Narrow beam optics useful in long-range sensing of medium to large size objects.



Type R4
Retroreflective
Very narrow beam optics designed to sense reflectors or reflective materials at long range. Designed for Beam Break sensing.



Type R5
Polarized
Anti-Glare
Retroreflective
Polarized to reduce response to "hot spot" glare from shiny surface of detected object. Use with red or blue light source.



Type F4
Glass Fiber Optics
Adapts MITI•EYE® for use with a wide variety of glass fiberoptic light guides for both the proximity and opposed sensing modes.



Type V4, V4A
Convergent 1" "V" Axis
Narrow beam optics that focus at a sensing range of 1". Useful for sensing small parts. Also useful for proximity sensing (range of 1" to 5") to minimize response to reflected light from background objects.



Type V6
Convergent 1.5" "V" Axis
Narrow beam optics that focus at a sensing range of 1.5". Useful for sensing small parts. Also useful for proximity sensing (range of 1.5" to 8") to minimize response to reflected light from background objects.



Type V8
Convergent .5" "V" Axis
Narrow beam optics that focus at a sensing range of .5". Useful for sensing small parts or registration color marks. Also useful for proximity sensing (range of .25" to 5") to minimize response to reflected light from background objects.



Type F5
Plastic Fiber Optics
Adapts MITI•EYE® for use with a wide variety of plastic fiberoptic light guides for both the proximity and opposed sensing modes.

Sensing Range Guidelines

Optical Blocks	MITI•EYE® Models		
	IR	RED	HI INT RED
04 Proximity	2 in.	1 in.	2 in.
05 Proximity	18 in.	9 in.	18 in.
R4 Retroreflective	20 ft.	16 ft.	N/A
R5 Polarized Retro	N/A	17 ft.	12 ft.
V4, V4A Convergent	1 in.	1 in.	1 in.
V6 Convergent	1.5 in.	1.5 in.	1.5 in.
V8 Convergent	.5 in.	.5 in.	.5 in.
Glass Fiberoptics			
F4 Proximity	1.5 in.	.5 in.	1 in.
F4 Proximity w UAC-15 lens	8 in.	N/A	6 in.
F4 Opposed	3.5 in.	2.5 in.	3 in.
F4 Opposed w UAC-15 lens	15 ft.	8 ft.	15 ft.
Plastic Fiberoptics			
F5 Proximity	N/A	N/A	1/2 in.
F5 Opposed	N/A	1 in.	2 in.
F5 Opposed w HLA-1 lens	N/A	3.5 ft.	4.5 ft.

MITI•EYE® Sensors offer a selection of either Infrared (invisible), Red (visible), or High Intensity Red (visible) light sources.

Infrared – invisible light source recommended for opaque object sensing. The IR LED provides long-range sensing capabilities and maximizes the ability to penetrate contaminated lenses.

Red – visible red light source recommended for sensing transparent/translucent objects and for use with the polarized retroreflective lens.

High Intensity Red – recommended for long-range proximity sensing and for use with plastic fiberoptic light guides.

NOTES: Proximity test utilized a 90% reflective white target. Retroreflective tests utilized a 3" diam. round reflector, Model AR-3. Range tests utilized a .125" diam. glass fiber bundle or .040" diam. plastic fiber.