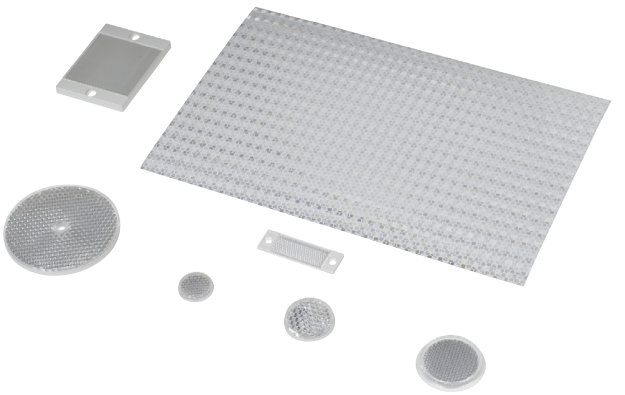
Reflectors

RL series reflectors for polarized reflective photoelectric sensors (all models)

- Suitable for use with polarized light photoelectric sensors
- Shapes and sizes for most applications
- Miniature types for close mounting in multiple sensor installations
- Single hole, dual hole and self-adhesive mounting types available
- Single and 10-packs available



Installation notes

- Keep the reflector surface clean to ensure peak detection performance. This is especially true when the maximum sensing range is being used. Clean using a damp cloth.
- When selecting a reflector, it is important to consider the ambient conditions it will be exposed to. Dusty or high humidity conditions may reduce the sensing range as much as 90%.
- Reflectors should be positioned at a 90° angle to the optical axis with a tolerance of ±15°.

Specifications

Model	Price	Quantity	Dimensions	Degree of Protection	Mounting	Materials
RL102	$35.00	10 per pack	Ø25mm [0.98 in]	IEC IP67	Customer-supplied adhesive or other mounting method required	Reflective face: PMMA Polymethylmethacrylate (acrylic); base material: ABS (Acrylonitrile-butadiene-styren)
RL102-1	$3.75	1 per pack				
RL103	$40.00	10 per pack	Ø34.5mm [1.36 in]			
RL103-1	$4.25	1 per pack				
RL104	$40.00	10 per pack	Ø46mm [Ø1.81 in]			
RL104-1	$4.25	1 per pack				
RL105	$35.00	10 per pack	90 x 40mm [3.54 x 1.58 in]		two Ø4.3 mm holes	
RL105-1	$3.75	1 per pack				
RL106G	$40.00	10 per pack	182 x 42mm [7.17 x 1.65 in]		two Ø6 mm holes	
RL106G-1	$4.25	1 per pack				
RL110	$18.00	10 per pack	Ø84mm [3.31 in]		one Ø5 mm hole	
RL110-1	$2.00	1 per pack				
RL116	$18.00	10 per pack	41 x 60mm [3.54 x 2.36 in]		two M3 holes	
RL116-1	$2.00	1 per pack				
RL100DA4	$32.50	1 per pack	200 x 300mm [7.87 x 11.81 in]		Self-adhesive	Paper (Acrylic tape with micro prism)
RL100DC4	$10.00	1 per pack	50 x 300mm [1.97 x 11.81 in]			
RL100DQ1	$7.50	1 per pack	100 x 100mm [3.94 x 3.94 in]			
RL111G	$52.00	10 per pack	22.5 x 47mm [0.89 x 21.85 in]		two M3 slots	Reflective face: PMMA Polymethylmethacrylate (acrylic); base material: ABS (Acrylonitrile-butadiene-styren)
RL111G-1	$6.00	1 per pack				
RL112G	$40.00	10 per pack	19 x 73mm [0.75 x 2.87 in]			
RL112G-1	$4.25	1 per pack				
RL113G	$46.00	10 per pack	51.4 x 60.3mm [2.02 x 2.37 in]		two M4 slots	
RL113G-1	$5.00	1 per pack				

Not recommended for applications involving moist air environments or water immersion.

Reflectors

RL series reflectors for polarized reflective laser photoelectric sensors (FALN series)

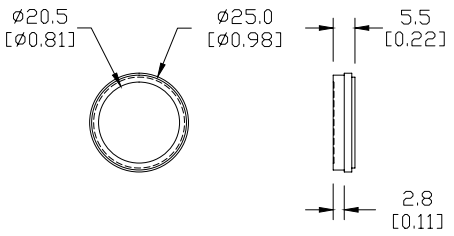
- Suitable for use with polarized light laser photoelectric sensors
- Sizes for most applications
- Miniature types for close mounting in multiple sensor installations
- Single and 5-packs available

Specifications						
Model	***RL201***	***RL201-1***	***RL203***	***RL203-1***	***RL204***	***RL204-1***
Price	$32.00	$7.00	$30.00	$6.50	$26.00	$5.75
Quantity (per package)	5	1	5	1	5	1
Dimensions	60mm x 82mm 2.36 in x 3.23 in		19mm x 60mm 0.75 in x 2.36 in		20mm x 32mm 0.80 in x 1.26 in	
Degree of Protection [1]	IEC IP67					
Mounting	two Ø 0.4 mm holes		two Ø 0.4 mm holes		two Ø 0.3 mm holes	
Materials	Acrylic/polycarbonate					
1 Not recommended for applications involving moist air environments or water immersion.						

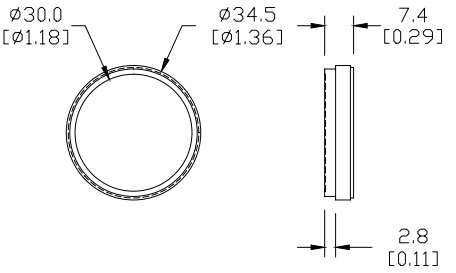
Dimensions

mm [inches]

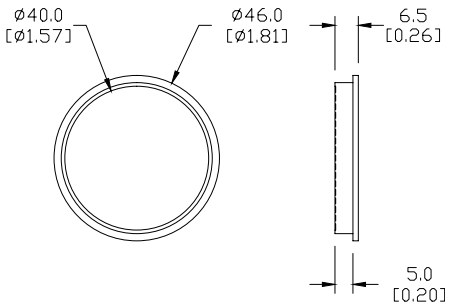
RL102/RL102-1



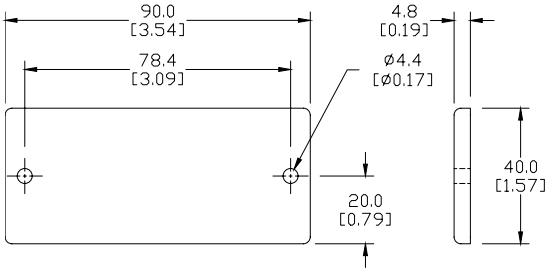
RL103/RL103-1



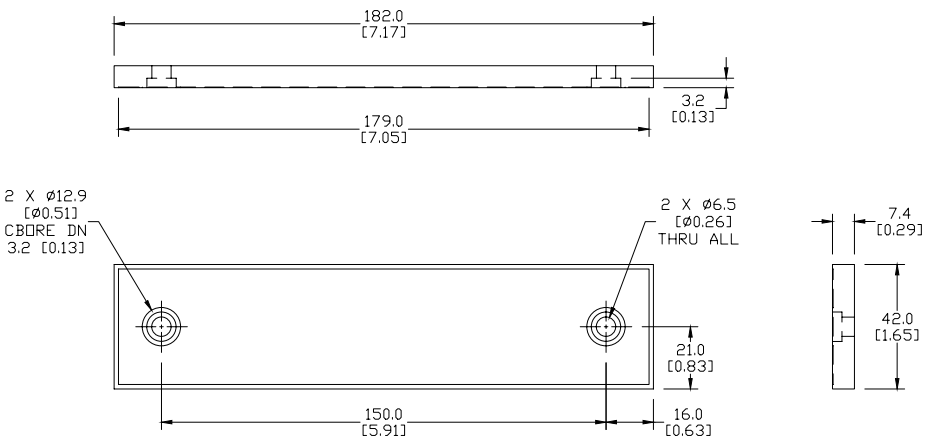
RL104/RL104-1



RL105/RL105-1



RL106G/RL106G-1

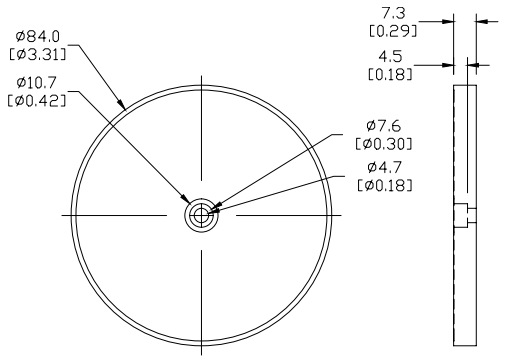


Reflectors

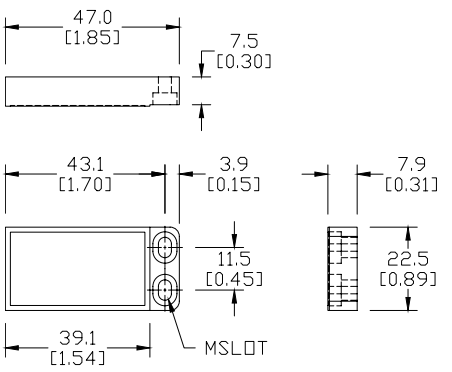
Dimensions

mm [inches]

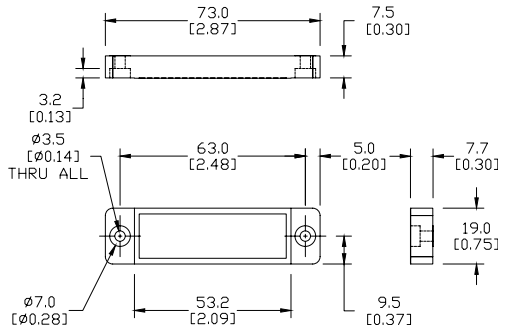
RL110/RL110-1



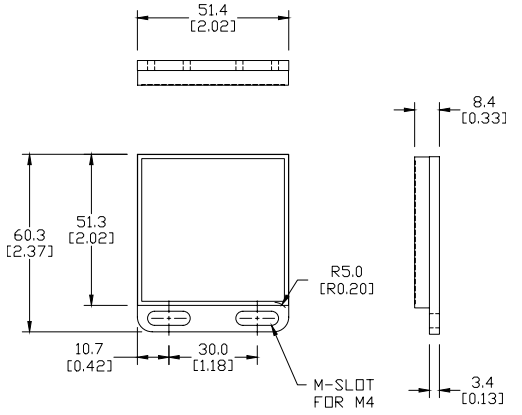
RL111G/RL111G-1



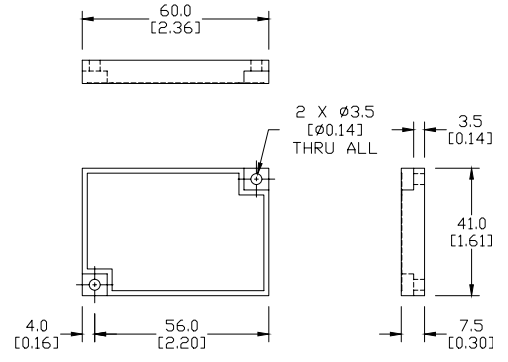
RL112G/RL112G-1



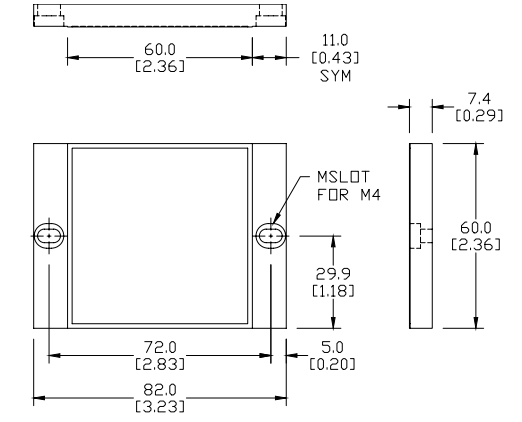
RL113G/RL113G-1



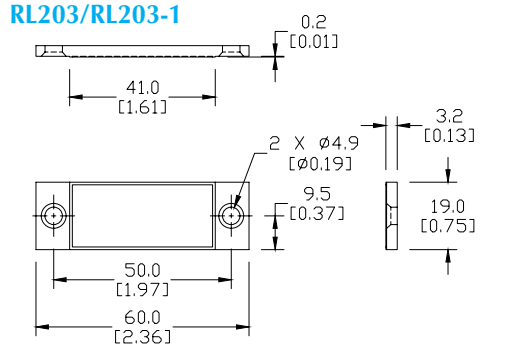
RL116/RL116-1



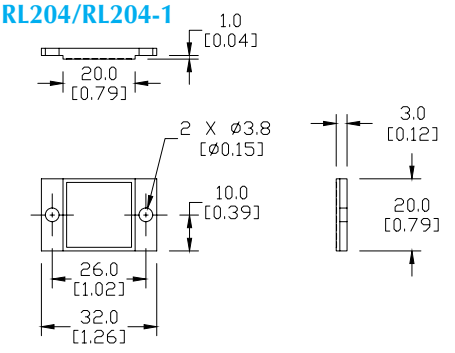
RL201/RL201-1



RL203/RL203-1



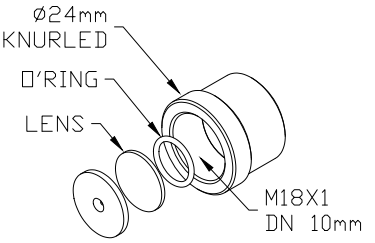
RL204/RL204-1



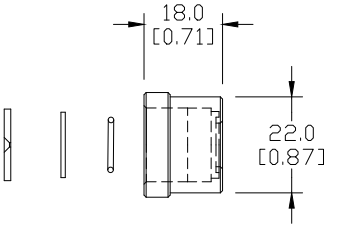
Shutters and Adapters

ST0S1 through ST0S8 shutters for M18 (18 mm) through-beam sensors (SSE / SSR)

- Reduces the emitted beam, allowing the detection of small targets
- Shutter consists of an aluminum cap and aperture with an o-ring and glass lens, which can screw onto the optical head of either the emitter or receiver

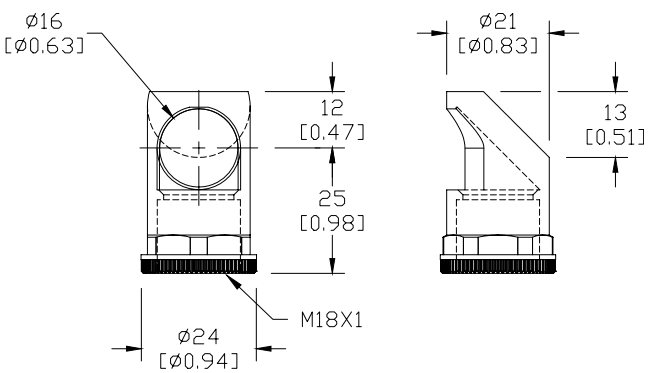


Sensing Distance (when used with SSE / SSR Model photoelectric switches)					
Model	***ST0S1***	***ST0S2***	***ST0S4***	***ST0S6***	***ST0S8***
Price	$13.50	$13.50	$13.50	$13.50	$13.50
Ø x shutter (mm)	1	2	4	6	8
Distance (m)	N/A	N/A	1.5	3.5	6.5
object (mm)	N/A	N/A	2	3	4
Table shows sensing distance and minimal detectable object.					



ST03 right-angle M18 (18 mm) beam adapter

Beam Adapters		
Part Number	***Price***	***Description***
ST03	$13.50	For use with M18 retroreflective and through-beam photoelectric switches (not for use with diffuse reflection sensors). Allows 90° light detection using an internal mirror set at 45° to the optical axis. Sensitivity loss is about 20-30%.

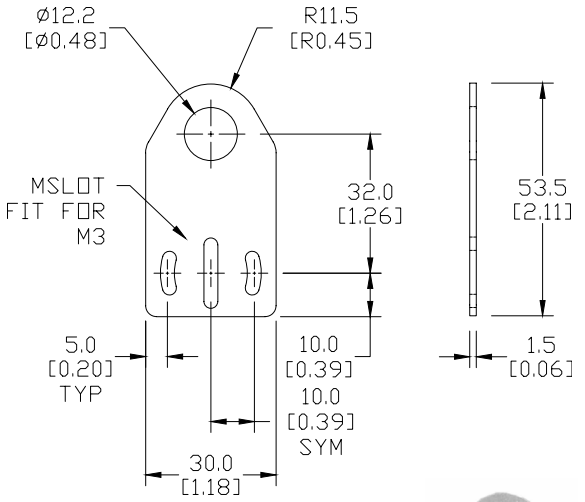


Accessories: Mounting Brackets

ST12A axial bracket

For mounting M12 (12mm) sensors. Has two mounting holes (use 3mm screws) and allows the rotation of an optical axis for right-beam angle adapter sensors.

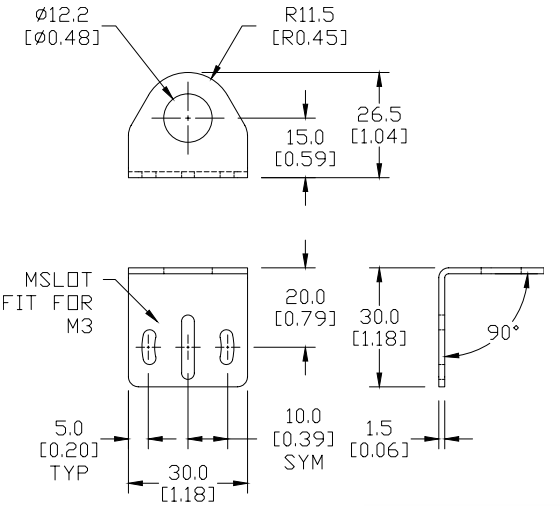
Brackets		
Part Number	**Price**	**Description**
ST12A	$2.00	Metal axial bracket for 12mm sensors, 1/pk
ST12A7W	$6.00	316L stainless steel axial bracket for 12mm sensors, 1/pk



ST12C right-angle bracket

Angular mounting bracket for use with M12 (12mm) sensors. Has two mounting holes (use 3mm screws) and allows the rotation of an optical axis for axial sensors.

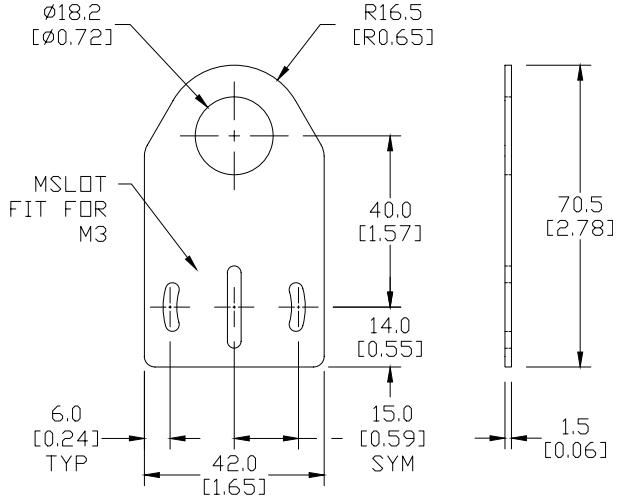
Brackets		
Part Number	**Price**	**Description**
ST12C	$6.00	Metal right angle bracket for 12mm sensors, 1/pk
ST12C7W	$6.00	316L stainless steel right angle bracket for 12mm sensors, 1/pk



ST18A axial bracket

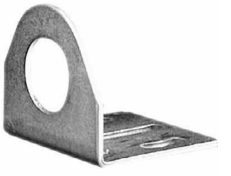
Mounting bracket for M18 (18mm) sensors. Has two mounting holes (use 4mm screws) and allows the rotation of an optical axis for right-beam angle adapter sensors.

Brackets		
Part Number	**Price**	**Description**
ST18A	$1.25	Metal axial bracket for 18mm sensors, 1/pk
ST18A7W	$6.00	316L stainless steel axial bracket for 18mm sensors, 1/pk

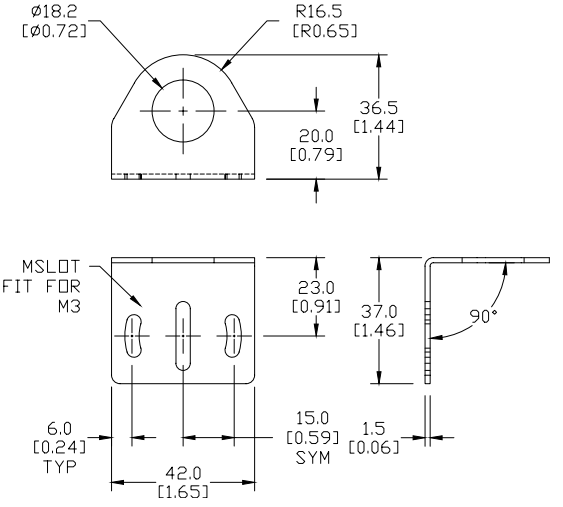


ST18C right-angle bracket

Angular mounting bracket for M18 (18mm) sensors. Has two mounting holes (use 4mm screws) and allows the rotation of an optical axis for axial sensors.



Brackets		
Part Number	**Price**	**Description**
ST18C	$1.25	Metal right angle bracket for 18mm sensors, 1/pk
ST18C7W	$6.00	316L stainless steel right angle bracket for 18mm sensors, 1/pk



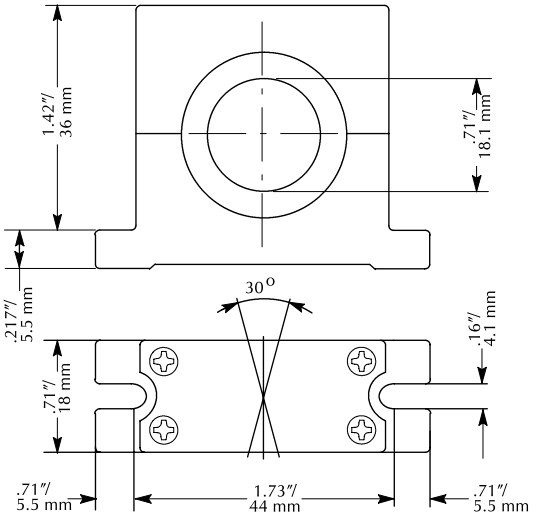
Accessories: Mounting Brackets

ST02 plastic swivel bracket M18 (18 mm)

Brackets		
Part Number	**Price**	**Description**
ST02	$8.25	Plastic mounting bracket for use with M18 photoelectric switches. Has a ball-joint and set screws to adjust sensor orientation. Allows orientation in all directions for retroreflective and through-beam sensors. (Will not work with C18 series).

Dimensions

inches [mm]



Accessories: Mounting Brackets

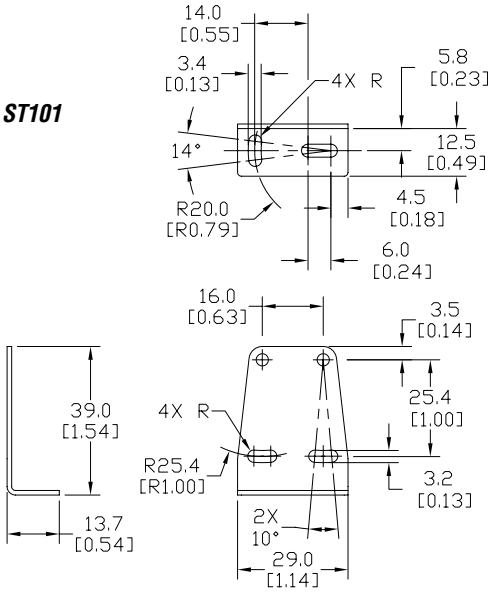
ST101 through ST104 mounting brackets

Photoelectric Sensor Brackets			
Part Number	**Price**	**Description**	**Weight [lb]**
ST101	$3.00	Mounting bracket, 304 stainless steel, right-angle vertical mount. Mounting hardware included.	0.04
ST102	$3.00	Mounting bracket, 304 stainless steel, right-angle horizontal mount. Mounting hardware included.	0.05
ST103	$4.00	Mounting bracket, for prewired photoelectric sensors only, 304 stainless steel, protective vertical mount. Mounting hardware included.	0.06
ST104	$4.00	Mounting bracket, for prewired photoelectric sensors only, 304 stainless steel, protective horizontal mount. Mounting hardware included.	0.05

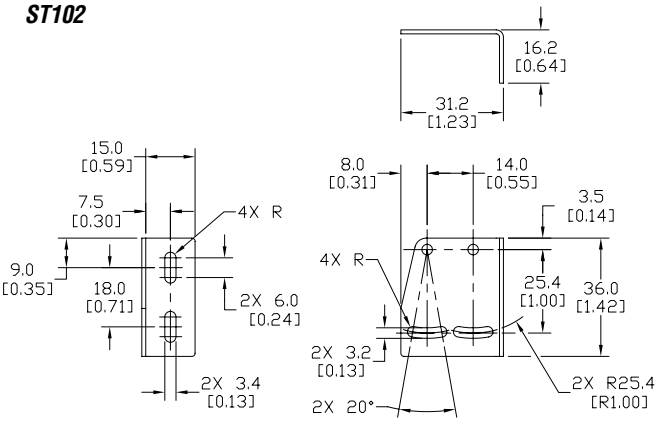
Dimensions

mm [inches]

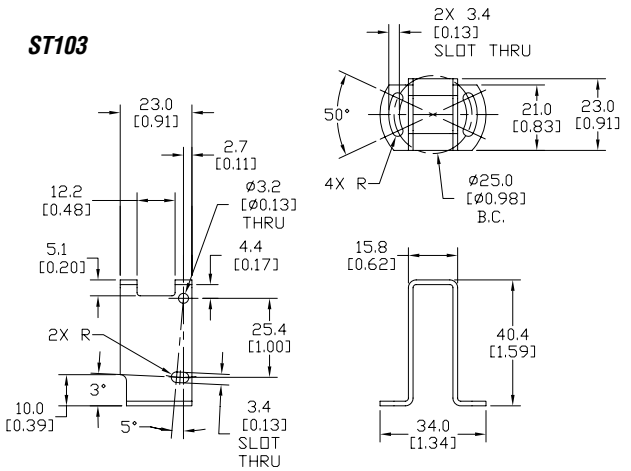
ST101



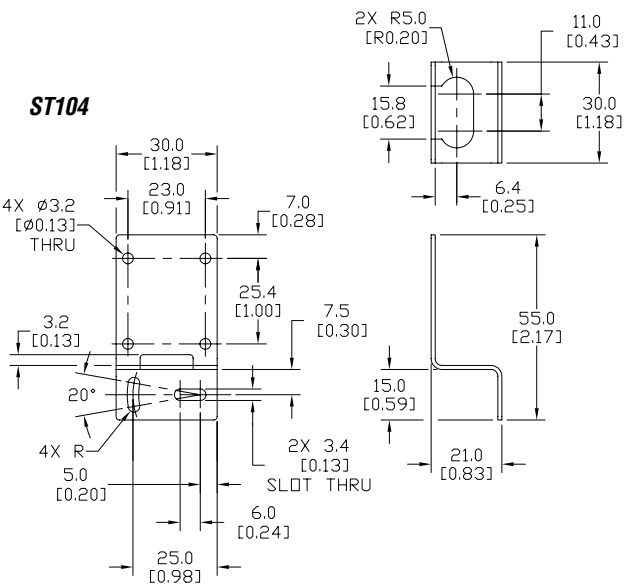
ST102



ST103

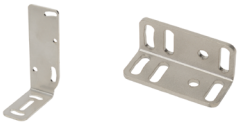


ST104



Accessories: Mounting Brackets

ST-S8 and ST-5072 mounting brackets

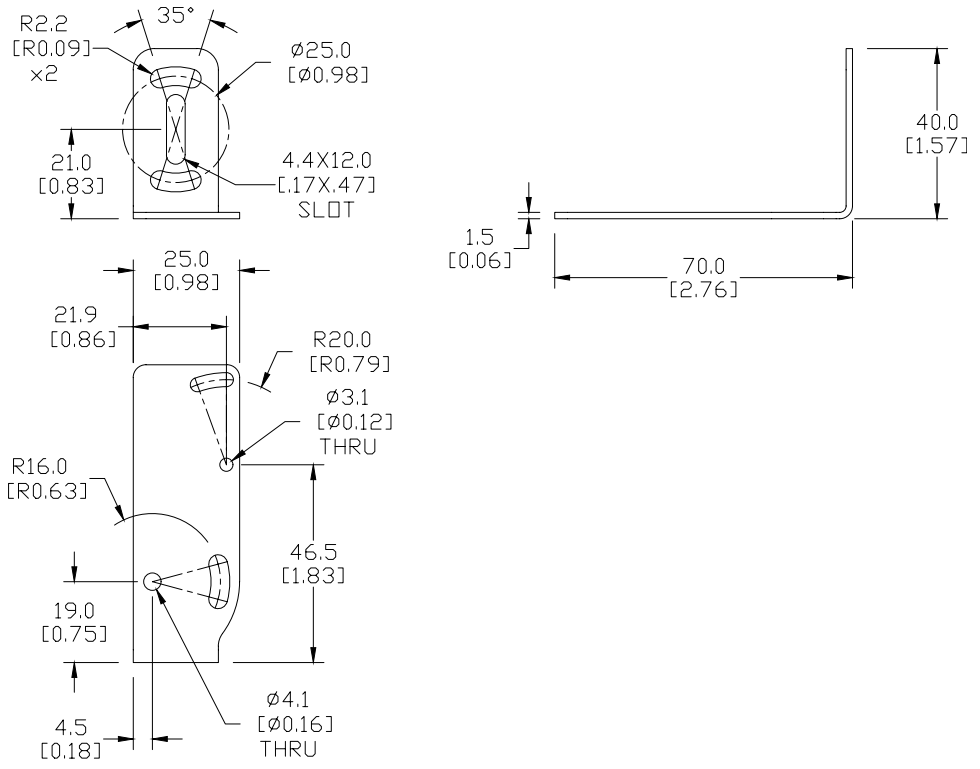


Contrast Sensor Brackets			
Part Number	**Price**	**Description**	**Weight [lb]**
ST-S8-FRM	$8.00	Datalogic mounting bracket, 304 stainless steel, vertical. For use with S8 series contrast sensors.	0.48
ST-5072	$10.00	Datalogic mounting bracket, 304 stainless steel, right-angle. For use with S8 series contrast sensors.	0.10

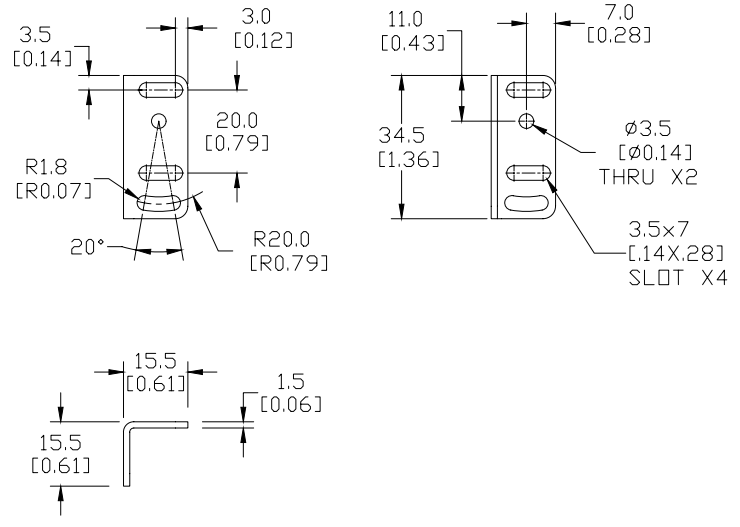
Dimensions

mm [inches]

ST-S8-FRM



ST-5072



See our website: www.AutomationDirect.com for complete Engineering drawings.