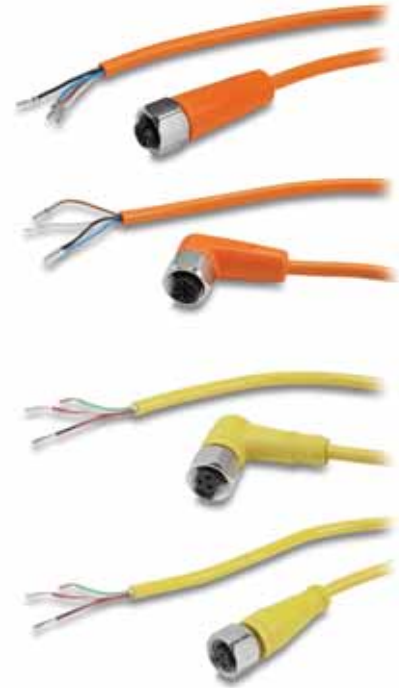


# Sensors Accessories: IP69K-rated Cables

## Cables with quick-disconnect plugs

- Industry standard axial and right-angle M12 or 1/2" Micro connectors with open leads
- 5m and 10m cable lengths
- PVC (polyvinyl chloride) jacket for food and beverage industrial applications
- IP69K rated for food and beverage industrial applications
- 316L stainless steel coupling nut
- EPDM o-ring

M12 Quick-Disconnect Cables (Euro, Micro DC-Single Key)							
Part Number	Price	Length	Poles	Connector	LED	Jacket	Dimensions
<b>M12 Quick-Disconnects</b>							
<b>EVT221</b>	<--->	5m (16.4ft)	4	Axial	No	Orange PVC	Figure 4
<b>EVT222</b>	<--->	5m (16.4ft)	4	Right-angle	No	Orange PVC	Figure 1
<b>EVT223</b>	<--->	10m (32.8ft)	4	Axial	No	Orange PVC	Figure 4
<b>EVT224</b>	<--->	10m (32.8ft)	4	Right-angle	No	Orange PVC	Figure 1
<b>Micro AC Volt 1/2 Inch - 20 UNF Cables</b>							
<b>1/2" Quick-Disconnects</b>							
<b>E18446</b>	<--->	5m (16.4ft)	3	Axial	No	Yellow PVC	Figure 6
<b>E18447</b>	<--->	5m (16.4ft)	3	Right-angle	No	Yellow PVC	Figure 5
<b>E18448</b>	<--->	10m (32.8ft)	3	Axial	No	Yellow PVC	Figure 6
<b>E18449</b>	<--->	10m (32.8ft)	3	Right-angle	No	Yellow PVC	Figure 5



## Patch cables with quick-disconnect plugs on each end

Available patch cables include:

- Industry standard M12 screw-lock connectors
- One male and one female connector
- Axial and right-angle connector models
- 0.3m, 0.6m, 1m, 2m and 5m cable lengths
- PVC (polyvinyl chloride) jacket for food and beverage industrial applications
- IP69K rating, suitable for food and beverage industrial applications
- 316L stainless steel coupling nut
- EPDM o-ring

M12 Patch Cables with Quick-Disconnect on Each End (Euro, Micro DC-Single Key)						
Part Number	Price	Length	Poles	Connectors	Jacket	Dimensions
<b>M12 Quick-Disconnect Patch Cables</b>						
<b>EVT225</b>	<--->	0.3m (0.98ft)	4	Axial female plug to axial male plug	Orange PVC	Figure 3
<b>EVT226</b>	<--->	0.3m (0.98ft)	4	Right angle female plug to axial male plug	Orange PVC	Figure 2
<b>EVT227</b>	<--->	0.6m (1.97ft)	4	Axial female plug to axial male plug	Orange PVC	Figure 3
<b>EVT228</b>	<--->	0.6m (1.97ft)	4	Right angle female plug to axial male plug	Orange PVC	Figure 2
<b>EVT229</b>	<--->	1m (3.3ft)	4	Axial female plug to axial male plug	Orange PVC	Figure 3
<b>EVT230</b>	<--->	1m (3.3ft)	4	Right angle female plug to axial male plug	Orange PVC	Figure 2
<b>EVT231</b>	<--->	2m (6.6ft)	4	Axial female plug to axial male plug	Orange PVC	Figure 3
<b>EVT232</b>	<--->	2m (6.6ft)	4	Right angle female plug to axial male plug	Orange PVC	Figure 2
<b>EVT233</b>	<--->	5m (16.4ft)	4	Axial female plug to axial male plug	Orange PVC	Figure 3
<b>EVT234</b>	<--->	5m (16.4ft)	4	Right angle female plug to axial male plug	Orange PVC	Figure 2

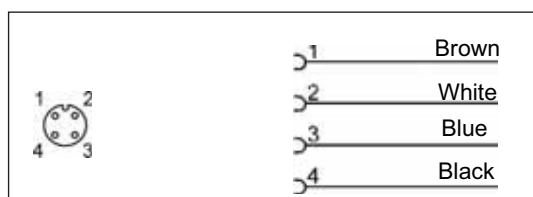


# Sensors Accessories: IP69K-rated Cables

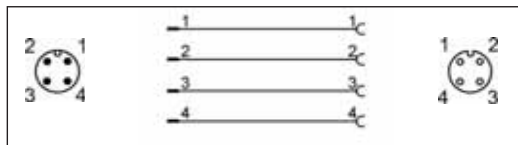
Cable Specifications		
Specification	M12	1/2"
<b>Length</b>	0.3m (0.98ft), 0.6m (1.97ft), 1m (3.3ft), 2m (6.6ft), 5m (16.4ft), 10m (32.8ft)	5m (16.4ft), 10m (32.8ft)
<b>Nominal Voltage</b>	250 VAC/300 VDC	300 VAC/VDC
<b>Max Current</b>	4A	4A
<b>Protection Degree</b>	IEC IP67 / IP68 / IP69K	IEC IP67 / IP68 / IP69K
<b>Material Nut</b>	316L stainless steel	316L stainless steel
<b>Jacket Material</b>	PVC	PVC
<b>Housing Material</b>	PVC	PVC
<b>Contacts Material</b>	Gold plated	Gold plated
<b>Tightening Torque</b>	0.6 to 1.5 Nm	
<b>Conductors Cross Section (AWG)</b>	22 AWG	22 AWG
<b>Ø Outer Cable</b>	4.9 mm	4.5 mm
<b>Temperature Range</b>	-25° to 100°C (-13° to 212°F)	-10° to 100°C (14° to 212°F)
<b>Environmental</b>	Halogen free, Silicone free	Halogen free, Silicone free
<b>Bending Radius</b>	min. 10 x cable diameter	
<b>Agency Approvals</b>	UL E191684	UL E177636

## Wiring - M12 DC

EVT221, EVT222, EVT223, EVT224



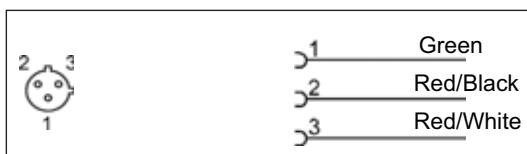
EVT225, EVT226, EVT227, EVT228, EVT229, EVT230, EVT231, EVT232, EVT233, EVT234



UL Reference	
Part Number	UL Catalog Number
<b>EVT221</b>	ADOGH040VAS0005E04
<b>EVT222</b>	ADOAH040VAS0005E04
<b>EVT223</b>	ADOGH040VAS0010E04
<b>EVT224</b>	ADOAH040VAS0010E04
<b>EVT225</b>	VDOGH040VAS00.3E04STGH040VAS
<b>EVT226</b>	VDOAH040VAS00.3E04STGH040VAS
<b>EVT227</b>	VDOGH040VAS00.6E04STGH040VAS
<b>EVT228</b>	VDOAH040VAS00.6E04STGH040VAS
<b>EVT229</b>	VDOGH040VAS0001E04STGH040VAS
<b>EVT230</b>	VDOAH040VAS0001E04STGH040VAS
<b>EVT231</b>	VDOGH040VAS0002E04STGH040VAS
<b>EVT232</b>	VDOAH040VAS0002E04STGH040VAS
<b>EVT233</b>	VDOGH040VAS0005E04STGH040VAS
<b>EVT234</b>	VDOAH040VAS0005E04STGH040VAS

## Wiring - 1/2" Micro AC

E18446, E18447, E18448, E18449



# Sensors Accessories: IP69K-rated Cables

## Dimensions mm (in)

Figure 1

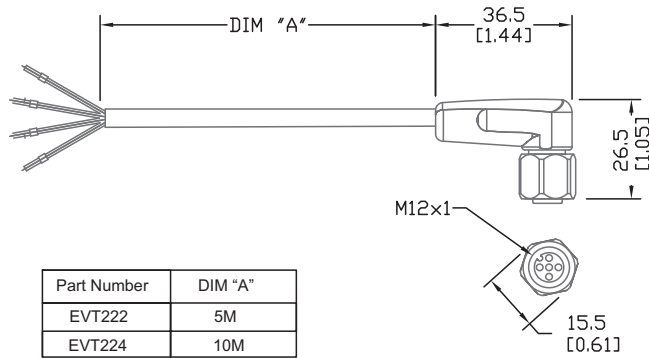


Figure 2

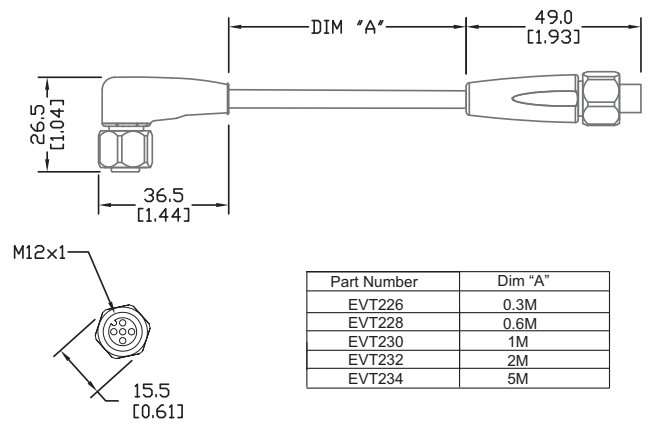


Figure 3

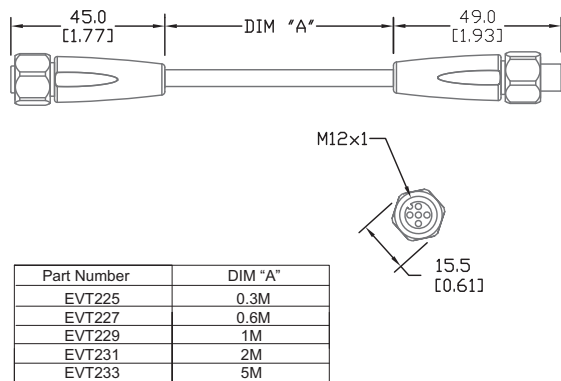


Figure 4

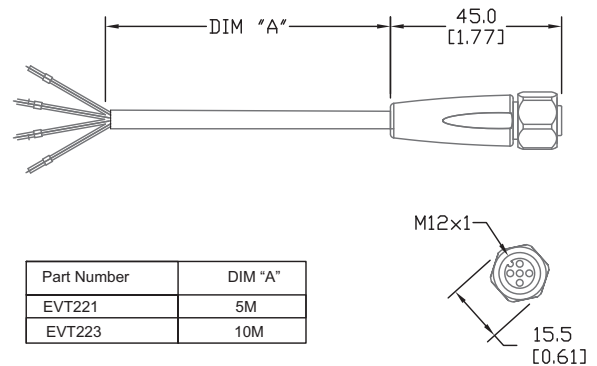


Figure 5

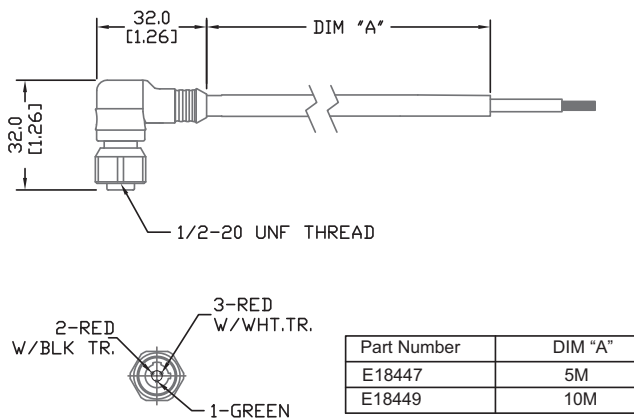
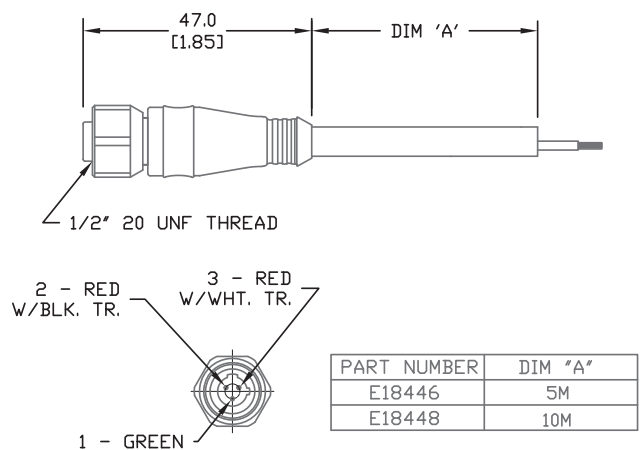


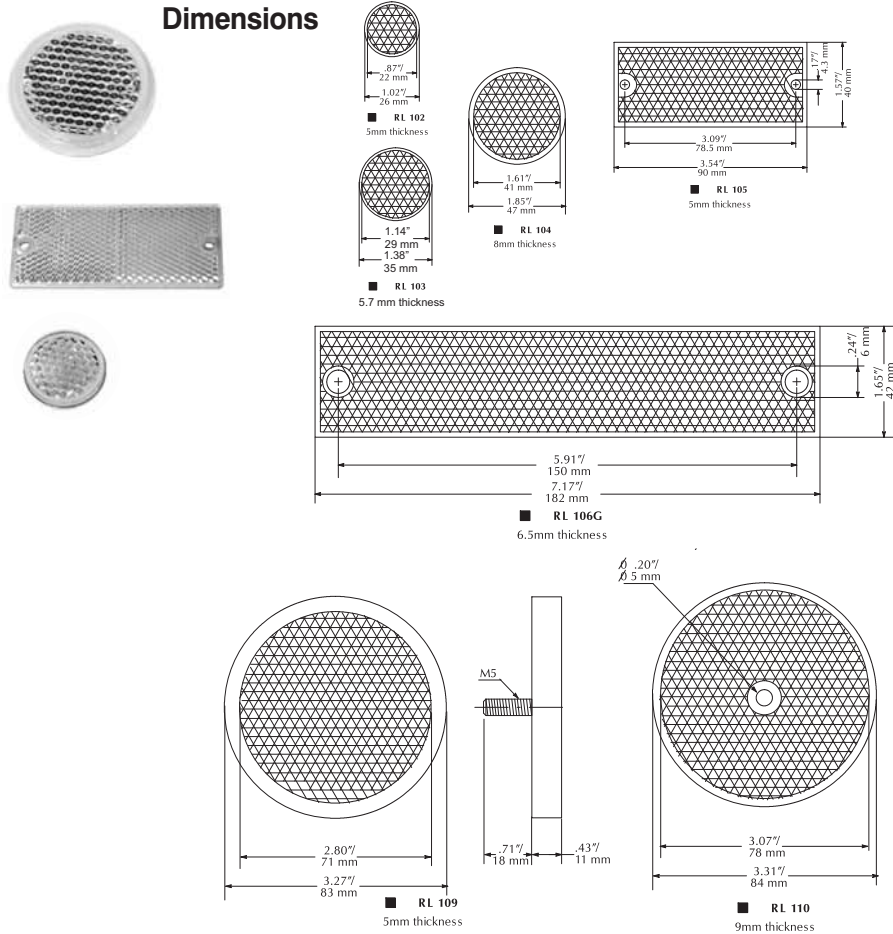
Figure 6



# Accessories: Reflectors and Shutters

## 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 stud mounting types available
- 10 reflectors per package



## 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							
<b>Model</b>	<i>RL102</i>	<i>RL103</i>	<i>RL104</i>	<i>RL105</i>	<i>RL106G</i>	<i>RL109</i>	<i>RL110</i> <sup>3</sup>
<b>Price (10 per pack)</b>	<--->	<--->	<--->	<--->	<--->	<--->	<--->
<b>% Sensing Range Using SSP<sup>1</sup></b>	50%	40%	50%	50%	50%	50%	100%
<b>% Sensing Range Using QXP<sup>1</sup></b>	--	35%	60%	50%	45%	30%	100%
<b>Dimensions</b>	Ø26mm	Ø36mm	Ø47mm	90x40mm	182x42mm	Ø83mm	Ø84mm
<b>Degree of Protection<sup>2</sup></b>	IEC IP67						
<b>Mounting</b>	Customer-supplied adhesive or other mounting method required		two Ø4.3mm holes	two Ø6mm holes	one M5 stud	one Ø5mm hole	
<b>Materials</b>	Reflective face: PMMA Polymethylmethacrylate (acrylic); base material: ABS (Acrylonitrile-butadiene-styren)						
<sup>1</sup> Refer to individual catalog pages for detailed explanations of these photoelectric sensors.							
<sup>2</sup> Not recommended for applications involving moist air environments or water immersion.							
<sup>3</sup> All reflective sensors are shipped with an RL110 reflector.							

## 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 a threaded ring-nut, a protective lens, an O-ring and an aperture, which can screw onto the optical head of either the emitter or receiver. The table above shows the sensing distance and minimal detectable object.

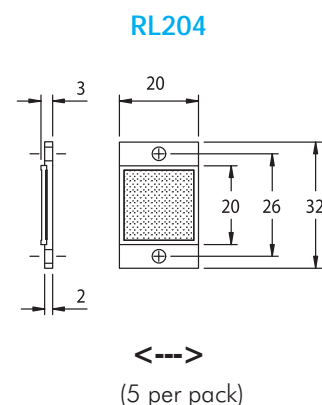
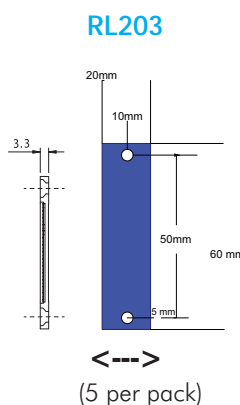
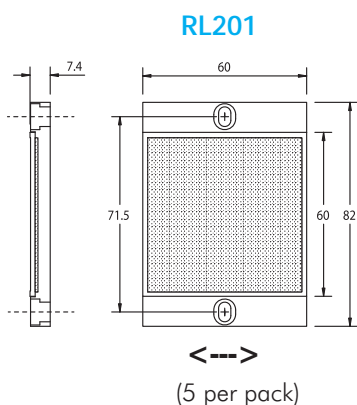
Sensing Distance (when used with SSE / SSR Model Photoelectric switches)						
<b>Model</b>	<i>ST0S1</i>	<i>ST0S2</i>	<i>ST0S3</i>	<i>ST0S4</i>	<i>ST0S6</i>	<i>ST0S8</i>
<b>Pieces Per Pack</b>	1	1	1	1	1	1
<b>Price</b>	<--->	<--->	Discontinued	<--->	<--->	<--->
<b>Ø x shutter (mm)</b>	1	2	3	4	6	8
<b>Distance (m)</b>	N/A	N/A	1	1.5	3.5	6.5
<b>object (mm)</b>	N/A	N/A	1.5	2	3	4

# Accessories: Reflectors, Adapters & Mounting Brackets

## RL series reflectors for polarized reflective Laser photoelectric sensors (FALN series)

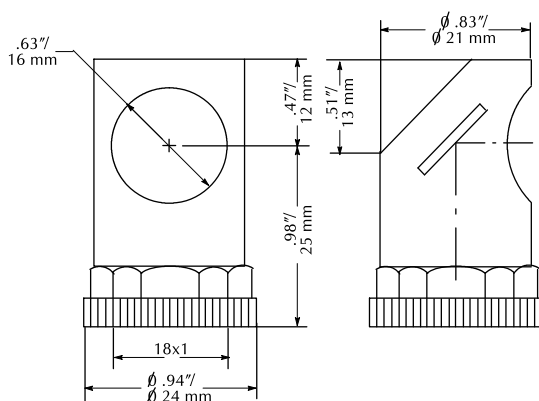
- Suitable for use with polarized light Laser photoelectric sensors
- Sizes for most applications
- Miniature types for close mounting in multiple sensor installations
- 5 reflectors per package

Specifications			
<b>Model</b>	<b>RL201</b>	<b>RL203</b>	<b>RL204</b>
<b>Sensing Range Using FALN<sup>1</sup></b>	30m	7m	7m
<b>Dimensions</b>	60mm x 82mm	19mm x 60mm	20mm x 32mm
<b>Mounting</b>	two Ø4mm holes	two Ø5mm holes	two Ø3mm holes
<b>Degree of Protection<sup>2</sup></b>	IEC IP67		
<b>Materials</b>	Acrylic/polycarbonate		
<p><b>1 Refer to individual catalog pages for detailed explanations of these photoelectric sensors.</b>  <b>2 Not recommended for applications involving moist air environments or water immersion.</b>  <b>Note: All reflective sensors are shipped with an RL110 reflector. Purchase additional reflectors separately.</b></p>			



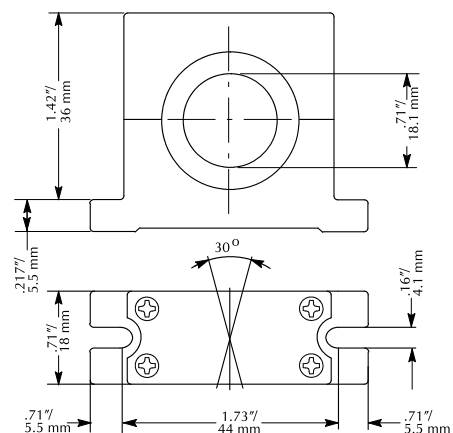
## ST03 right-angle M18 (18 mm) beam adapter

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%.



## ST02 plastic swivel bracket M18 (18 mm)

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).



# Accessories: Mounting Brackets

## ST12A axial bracket

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

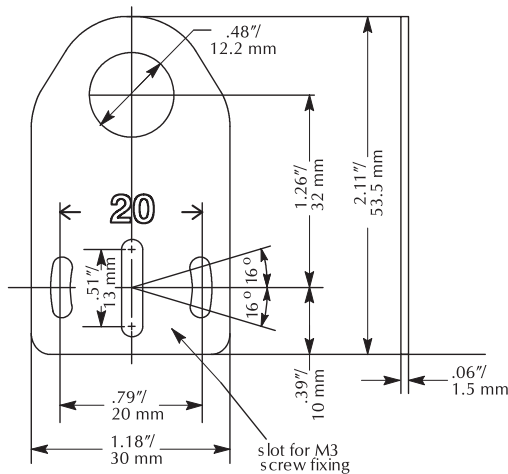


## ST12C right-angle bracket

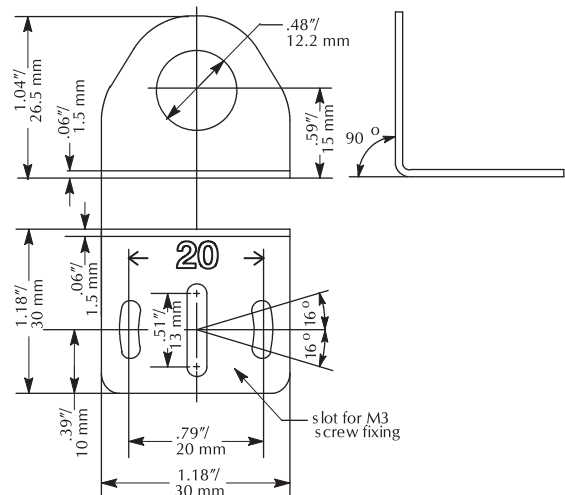
Angular mounting bracket for use with M12 (12 mm) sensors. Has two mounting holes (use 3 mm screws) and allows the rotation of an optical axis for axial sensors.



Brackets		
Part Number	Price	Description
<b>ST12A</b>	<-->	Metal axial bracket for 12 mm sensors, 1/pk
<b>ST12A7W</b>	<-->	316L stainless steel axial bracket for 12 mm sensors, 1/pk



Brackets		
Part Number	Price	Description
<b>ST12C</b>	<-->	Metal right angle bracket for 12 mm sensors, 1/pk
<b>ST12C7W</b>	<-->	316L stainless steel right angle bracket for 12 mm sensors, 1/pk



## ST18A axial bracket

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

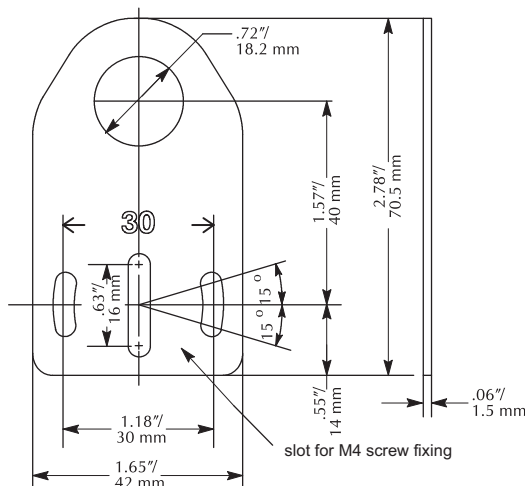


## ST18C right-angle bracket

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



Brackets		
Part Number	Price	Description
<b>ST18A</b>	<-->	Metal axial bracket for 18 mm sensors, 1/pk
<b>ST18A7W</b>	<-->	316L stainless steel axial bracket for 18 mm sensors, 1/pk



Brackets		
Part Number	Price	Description
<b>ST18C</b>	<-->	Metal right angle bracket for 18 mm sensors, 1/pk
<b>ST18C7W</b>	<-->	316L stainless steel right angle bracket for 18 mm sensors, 1/pk

