

Installation accessories

ST serie	Various accessories for sensors	198
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SERIE	ST
	<ul style="list-style-type: none"> ◆ Mounting brackets ◆ Swing mount brackets for an easy alignment ◆ Focusing devices and shutters for reduction of minimum object in applications where high precision of detection is required ◆ Protective fronts ◆ Anti-condensation accessories can be cut to size ◆ Right angle beam adapter ◆ Tester for checking correct working of DC sensors

ORDERING SYSTEM		Mounting brackets
model	description	to be used with following series
ST 01	metal mount bracket for rectangular sensors	BS-BV - G - K - R
ST 02	Ø18mm plastic swing bracket	MS - MV - SA - SS - SK
ST 04	Ø12mm plastic swing bracket	HM - MM
ST 07	metal mount bracket for rectangular sensors	PS - FS1
ST 12-A	metal axial mount bracket for M12 sensors	HM - MM - PM - PMS - VM
ST 12-C	metal right angle mount bracket for M12 sensors	HM - MM - PM - PMS - VM
ST 13	metal swing bracket with threaded holes for M30 sensors	MT - CS - TK
ST 14	metal swing bracket with screws for M30 sensors	MT - CS - TK
ST 18-A	metal axial mount bracket for M18 sensors	MS - MV - SA - SS - SK - PK - VK - GL15 - AX80- AX100
ST 18-C	metal right angle mount bracket for M18 sensors	MS - MV - SA - SS - SK - PK - VK - GL15 - AX80- AX100
ST 30-A	metal axial mount bracket for M30 sensors	MT - CS - TK - CT - PT - VT - AX500
ST 30-C	metal right angle mount bracket for M30 sensors	MT - CS - TK - CT - PT - VT - AX500
ST 70	metal mount bracket for miniaturized rectangular sensors	QX
ST 80	metal mount bracket for rectangular sensors	RX
ST 81	metal mount bracket for rectangular sensors with fixing slide	RX
ST 83	metal mount bracket for rectangular sensors with fixing slide	SX
ST 84	metal mount bracket for rectangular sensors with fixing slide	TX
ST 29	M18 metal ring nuts for metal sensors mounted on ST02 swing brackets	MS - SA - SS
STC-00	mounting bracket for cylindrical rod Ø 12 ÷ 20 mm.	RL 110 - 116 - 113G
STC-18	mounting bracket for cylindrical rod Ø 12 ÷ 20 mm.	SS - SP - MS - MP - MQ - MV - FA - FB - SK - SH
STC-80	mounting bracket for cylindrical rod Ø 12 ÷ 20 mm.	RX*/**-*A - BS - BV - PS

ORDERING SYSTEM		Focusing devices - Shutters
model	description	to be used with following series
STF-12 ... 50	M18 focusing device (12 - 25 - 50mm)	SAT
STFM-1 ... 4	M12 focusing devices (7,5 - 12,5 - 22 - 29mm)	HM - MM
STOK	M18 mechanical shutter for STP accessory	SK
STOM1....6	shutter for M12 sensors	HM - MM
STOS1....8	shutter for M18 sensors	MS - MV - SA - SS - SP

ORDERING SYSTEM		Protective fronts - Right angle beam adapter
model	description	to be used with following series
ST 03	right angle beam adapter M18	MS - MV - SS - SK (through-beam models)
ST 37	right angle beam adapter M12	HM - MM
ST 55	right angle beam adapter M30	MT - CS - TK
ST 28	right angle beam adapter for optical fibres	OF - CF
ST 30	antidust front M18	MS - MV - SA - SS
ST 36	antidust front M12	HM - MM
ST 32	anti-condensation front M18	MS - MV - SA - SS
ST 50	protective front M18	MS - MV - SA - SS
ST 60	protective front M12	HM - MM

ORDERING SYSTEM		Focusing devices - Shutters
model	description	to be used with following series
ST 08	lock nuts fixing fibre M18	MSF
STZ3	undecal socket	UR - D
ST 82	accessory screwdriver for trimmer adjustment	BS - BV - PS - FS1 - QX - RX - SA - SK - SS - AX
ST 100	accessory for testing DC sensors	

MODEL	ST01	DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
mounting bracket			<p>For an easy and perfect mounting and alignment of rectangular photoelectric sensors. This bracket allows the disalignment adjustment of $\pm 7,5^\circ$ in all directions.</p> <p>Mounting with M4 screws.</p> <p>Photoelectric sensor step 25mm.</p> <p>Mounting step 25 +10mm.</p>
Material	zinc-plated iron		
Applications on series	BS - BV		

MODEL	ST02	DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
Ø18 plastic swing bracket			<p>It is a plastic mount bracket for M18 sensors that, using a ball joint, allows an easy mounting, orientation in all directions and block of retro-reflective and through-beam sensors.</p> <p>Assembling</p> <p>Fix the bracket to the support with two M4 screws, enter and block the special supplied nuts possibly avoiding the protrusion of the front part, slightly tighten the 4 head screws, follow the orientation procedure, tighten strongly the head screws.</p>
Material	ABS		
Applications on series	MS-MV-SA-SS-SK		

MODEL	ST04	DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
Ø12 plastic swing bracket			<p>It is a plastic mount bracket for M12 sensors that, using a ball joint, allows an easy mounting, orientation in all directions and block of retro-reflective and through-beam sensors.</p> <p>Mounting</p> <p>Fix the bracket to the support with two M4 screws, enter and block the special supplied nuts possibly avoiding the protrusion of the front part, slightly tighten the 4 head screws, follow the orientation procedure, tighten strongly the head screws.</p>
Material	ABS		
Applications on series	HM-MM		

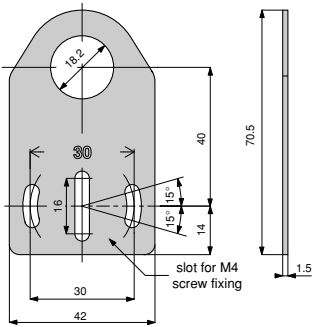

MODEL	ST07	DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
mounting bracket			<p>For an easy and perfect mounting and alignment of rectangular photoelectric sensors. This bracket allows the disalignment adjustment of $\pm 7,5^\circ$ in all directions.</p> <p>Mounting with M3 screws (M4 on photoelectric sensors).</p> <p>Photoelectric sensor step 20mm.</p> <p>Mounting step 20mm.</p>
Material	zinc-plated iron		
Applications on series	FS - PS		

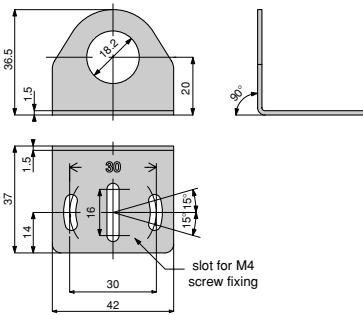

MODEL	ST12-A	DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
Ø12 metal axial mounting bracket			<p>It is a metal plane mount bracket with hole Ø12 for mounting the sensor and two holes for M3 screws, allowing the rotation of an optical axis for right beam angle adapter sensors.</p> <p>Assembling</p> <p>Slightly fix the mount bracket with two M3 screws, position the sensor and fix it with special supplied nuts, perform the adjustment procedure and block the M3 screws.</p>
Material	zinc-plated iron		
Applications on series	HM-MM-PM-PMS-VM		

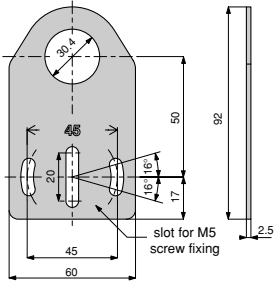

MODEL	ST12-C	DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
Ø12 metal right angle mounting bracket			<p>It is a metal angular mount bracket with hole Ø12 for mounting the sensor and two holes for M3 screws, allowing the rotation of an optical axis for axial sensors.</p> <p>Assembling</p> <p>Slightly fix the mount bracket with two M3 screws, position the sensor and fix it with special supplied nuts, perform the adjustment procedure and block the M3 screws.</p>
Material	zinc-plated iron		
Applications on series	HM-MM-PM-PMS-VM		

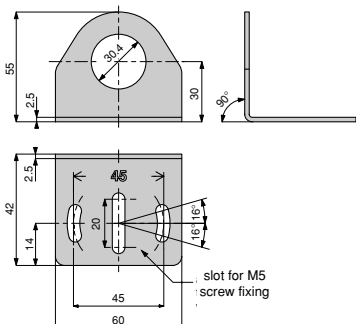

MODEL	ST13	DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
Ø30 metal swing bracket			<p>It is a mount bracket in aluminium for sensors that, using a ball joint, allows an easy mounting, orientation in all directions and blocking retro-reflective and through-beam sensors in required position.</p> <p>Assembling</p> <p>It is possible to fix the mount bracket to the work surface using M6 screws from beneath the surface or through the wall, enter and block the sensor with special supplied nuts if possible avoiding projection of the front part, screw (1) perform the adjustment procedure, strongly turn the lateral screw.</p>
Material	aluminium		
Applications on series	CS-MT-TK		

MODEL	ST14	DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
mounting bracket			<p>It is a mount bracket in aluminium for sensors that, using a ball joint, allows an easy mounting, orientation in all directions and blocking retro-reflective and through-beam sensors in required position.</p> <p>Assembling</p> <p>It is possible to fix the mount bracket to the work surface using long M6 screws from upper side, enter and block the sensor with special supplied nuts if possible avoiding projection of the front part, screw (1) perform the adjustment procedure, strongly turn the lateral screw.</p>
Material	aluminium		
Applications on series	CS-MT-TK		

MODEL		ST18-A	DIMENSIONAL DRAWING		DESCRIPTION / INSTALLATION	
Ø18 metal axial mounting bracket					<p>It is a metal plane mount bracket with hole Ø18 for mounting the sensor and two holes for M4 screws, allowing the rotation of an optical axis for right beam angle adapter sensors.</p> <p>Assembling</p> <p>Slightly fix the mount bracket with two M4 screws, position the sensor and fix it with special supplied nuts, perform the adjustment procedure and block the M4 screws.</p>	
						
Material	zinc-plated iron					
Applications on series	MS-MV-SA-SS-SK-SP-PK-VK-GL-AX80-AX100					

MODEL		ST18-C	DIMENSIONAL DRAWING		DESCRIPTION / INSTALLATION
Ø18 metal right angle mounting bracket					<p>It is a metal angular mount bracket with hole Ø18 for mounting the sensor and two holes for M4 screws, allowing the rotation of an optical axis for axial sensors.</p> <p>Assembling</p> <p>Slightly fix the mount bracket with two M4 screws, position the sensor and fix it with special supplied nuts, perform the adjustment procedure and block the M4 screws.</p>
					
Material	zinc-plated iron				
Applications on series	MS-MV-SA-SS-SK-SP-PK-VK-GL-AX80-AX100				

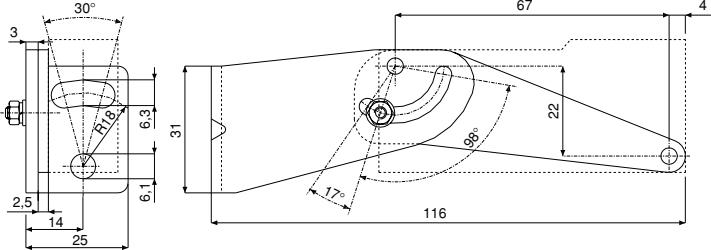
MODEL		ST30-A	DIMENSIONAL DRAWING		DESCRIPTION / INSTALLATION		
Ø30 metal axial mounting bracket					<p>It is a metal plane mount bracket with hole Ø30 for mounting the sensor and two holes for M5 screws, allowing the rotation of an optical axis for right beam angle adapter sensors.</p> <p>Assembling</p> <p>Slightly fix the mount bracket with two M5 screws, position the sensor and fix it with special supplied nuts, perform the adjustment procedure and block the M5 screws.</p>		
							
Material		zinc-plated iron					
Applications on series		CS-MT-TK-CT-PT-VT-AX500					

MODEL		ST30-C	DIMENSIONAL DRAWING		DESCRIPTION / INSTALLATION	
Ø30 metal right angle mounting bracket					<p>It is a metal angular mount bracket with hole Ø30 for mounting the sensor and two holes for M5 screws, allowing the rotation of an optical axis for axial sensors.</p> <p>Assembling</p> <p>Slightly fix the mount bracket with two M5 screws, position the sensor and fix it with special supplied nuts, perform the adjustment procedure and block the M5 screws.</p>	
						
Material						zinc-plated iron
Applications on series						CS-MT-TK-CT-PT-VT-AX500

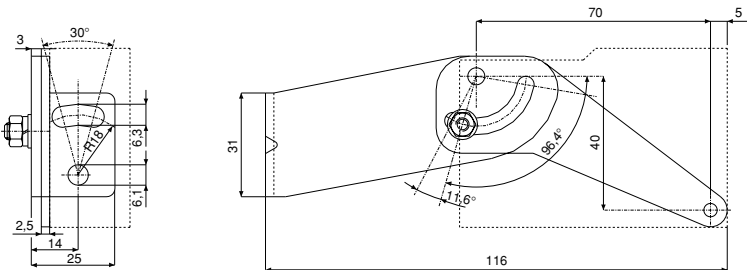
MODEL	ST70	DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
mounting bracket			<p>For a perfect and easy mounting and alignment of rectangular photoelectric sensors QX serie. It allows the adjustment of disalignment of $\pm 5^\circ$ in all directions.</p> <p>Mounting with M3 screws.</p> <p>Photoelectric sensor step 20mm.</p> <p>Mounting step 20mm.</p>
Material	zinc-plated iron		
Applications on series	BS - BV		

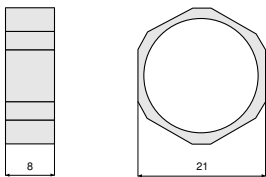
MODEL	ST80	DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
top mounting bracket			<p>For a perfect and easy mounting and alignment of rectangular photoelectric sensors RX serie. It allows the adjustment of disalignment of $\pm 7,5^\circ$ in all directions.</p> <p>Mounting with M4 screws.</p> <p>Photoelectric sensor step 25mm.</p> <p>Mounting step 25 + 10mm.</p>
Material	zinc-plated iron		
Applications on series	RX		

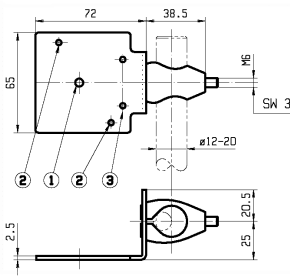
MODEL	ST81	DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
side mounting bracket			<p>For a perfect and easy mounting and alignment of rectangular photoelectric sensors RX serie. It allows an adjustment of disalignment of $\pm 15^\circ$ in one direction and $\pm 7,5^\circ$ in another.</p> <p>Mounting with M5 screws.</p>
Material	zinc-plated iron		
Applications on series	RX		

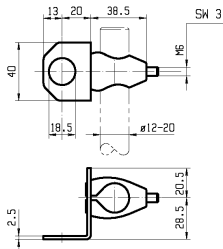
MODEL		ST83	DESCRIPTION / INSTALLATION
mounting bracket			
			
Material	zinc-plated iron		
Applications on series	SX		
			DESCRIPTION / INSTALLATION
			For a perfect and easy mounting and alignment of rectangular photoelectric sensors SX series. It allows an adjustment of disalignment of $\pm 49^\circ$ in one direction and $\pm 15^\circ$ in another. Mounting with M4 screws.

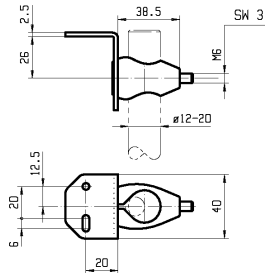
DESCRIPTION / INSTALLATION
<p>For a perfect and easy mounting and alignment of rectangular photoelectric sensors SX serie. It allows an adjustment of disalignment of $\pm 49^\circ$ in one direction and $\pm 15^\circ$ in another.</p> <p>Mounting with M4 screws.</p>


MODEL ST84		DESCRIPTION / INSTALLATION
mounting bracket		
Material	zinc-plated iron	
Applications on series	TX	
		DESCRIPTION / INSTALLATION For a perfect and easy mounting and alignment of rectangular photoelectric sensors SX series. It allows an adjustment of disalignment of approx. $\pm 43^\circ$ in one direction and $\pm 15^\circ$ in another. Mounting with M5 screws.

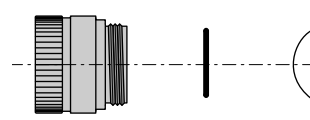
MODEL ST29		DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
M18 ring nut for mounting on ST02			M18 metal ring nut of small dimensions for easy mounting of metal housing sensors on ST 02 swing bracket. Fixing with key of 21mm.
Material	zinc-plated brass		
Applications on series	MS-SA-SS		


MODEL STC-00		DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
mounting bracket for reflectors			It is a bracket mounting on a bar of 12...20mm, that allows the radial rotation of the optical axis on two orthogonal planes. Provides the widest adjusting range, making easier the alignment operations. Fix the reflector RL 110 to the hole (1), using the M5 screw and nut. Fix the reflector RL 116 to the holes (2), using two M3 screws and nuts. Fix the reflector RL 113G to the holes (3), using two M3 screws and nuts. The screws and the nuts are supplied. Hook up the bracket to the terminal and position onto the bar. Screw the dowel without tighten. Perform the adjustments and strongly turn the dowel.
Material	zinc plated iron/zinc alloy		
Applications on series	RL 100 - RL 116 RL 113 G		

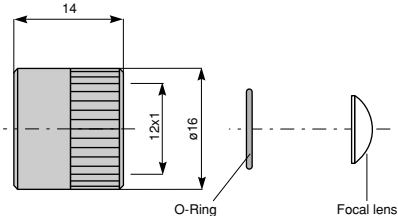
MODEL STC-18		DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
mounting bracket for sensors ø 18			It is a bracket mounting on a bar of 12...20mm, that allows the radial rotation of the optical axis on two orthogonal planes. Provides the widest adjusting range, making easier the alignment operations. Fix the sensor M18 to the bracket. Hook up the bracket to the terminal and position onto the bar. Screw the dowel without tighten. Perform the adjustments and strongly turn the dowel.
Material	zinc plated iron/zinc alloy		
Applications on series	MS - MV - SA - SS SP - SK - SH		

MODEL		STC-80	DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
mounting bracket for sensor				It is a bracket mounting on a bar of 12...20mm, that allows the radial rotation of the optical axis on two orthogonal planes. Provides the widest adjusting range, making easier the alignment operations. Fix the sensor to the bracket. Hook up the bracket to the terminal and position onto the bar. Screw the dowel without tighten. Perform the adjustments and strongly turn the dowel.
Material	zinc-plated iron/zinc alloy			
Applications on series	RX - BS - BV - PS			


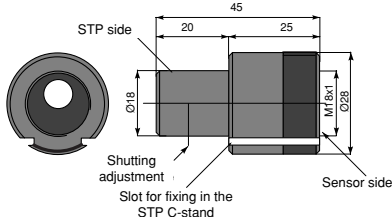
MODEL		STF-12, 25, 50	
M18 focusing set			
			
Material	anodized-aluminium		
Applications on series	SA (SAT mod.)		
Focal distance STF-12	12mm		
Focal distance STF-25	25mm		
Focal distance STF-50	50mm		

DIMENSIONAL DRAWING		DESCRIPTION / INSTALLATION	
		<p>If mounted on SAT photoelectric sensors it allows to establish the focal working distance to detect very small elements.</p> <p>See “characteristic curves” of SA serie.</p>	

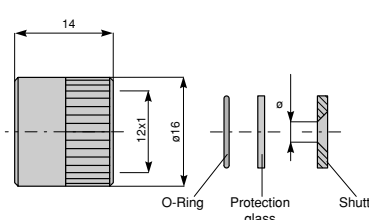
MODEL	STFM-1, 2, 3, 4
mount bracket	
	
Material	anodized-aluminium
Applications on series	HM (emitter)
Focal distance STFM-1	7,5mm
Focal distance STFM-2	12,5mm
Focal distance STFM-3	22mm

DIMENSIONAL DRAWING


DESCRIPTION / INSTALLATION																		
<p>If mounted on the emitter it allows to obtain a focalized point to detect very small elements.</p>																		
<table> <tr> <th></th><th>code</th><th>STFM-1</th><th>STFM-2</th><th>STFM-3</th><th>STFM-4</th></tr> <tr> <td></td><td>ø object (mm)</td><td>0,25</td><td>0,4</td><td>0,5</td><td>0,6</td></tr> <tr> <td>HM</td><td>distance (mm)</td><td>105</td><td>140</td><td>210</td><td>240</td></tr> </table>		code	STFM-1	STFM-2	STFM-3	STFM-4		ø object (mm)	0,25	0,4	0,5	0,6	HM	distance (mm)	105	140	210	240
	code	STFM-1	STFM-2	STFM-3	STFM-4													
	ø object (mm)	0,25	0,4	0,5	0,6													
HM	distance (mm)	105	140	210	240													

MODEL STOK mechanical shutter for contact protection		DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
			<p>This accessory is used to increase the sensitivity of the STP accessory; it consist of a mechanical shutter where the section of the light beam is reduced in proportion to the screwing depth of a standard dowel to the optical axis. It also affords a better protection of the sensors against hostile agents since the part ito be introduced into the rubber features a smooth surface, whereas he sensor is screwed on the STOK and the tightness is assured by a seal. Due to the reduction of the emitted power, caused by the beam contraction, it can be used for sensing ranges up to 2 m. only.</p> <p>Installation</p> <p>This accessory must be fixed to the STP aluminium stand by introducing it into the special guides and into the rubber profile; the sensor must be screwed in the M18 hole with the rubber seal; the adjustment of the dowel is possible only before introducing it into the rubber; the adjustment of the sensor remains available. From the pointof view of security, sensitivity always remains equal to the inside diameter of the rubber (13 mm.).</p>
Material Applications on series	anodized-aluminium SK (SK3+STP)		

MODEL	STOM1...6
M12 shutters	
Material	anodized-aluminium
Applications on series	HM-MM

DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION																															
 <p>Technical drawing showing the dimensions of the M12 accessory. The main view shows a cylindrical component with a width of 14 and a height of 12x1. The detail view shows the assembly of the O-Ring (ø16), Protection glass (ø), and Shutter (1).</p>	<p>The accessory for through-beam emitter/receiver M12 reduces the beam dimension to detect small dimension targets (up to 1mm) for a precise detection.</p> <p>The system is formed by a threaded ring nut, a protection glass, an O-ring and a hole to tighten on the optic of both sensors.</p> <p>The obtained distances referred to minimum detectable targets.</p> <table border="1"> <thead> <tr> <th></th><th>code</th><th>STOM1</th><th>STOM2</th><th>STOM3</th><th>STOM4</th><th>STOM5</th><th>STOM6</th></tr> </thead> <tbody> <tr> <td></td><td>ø oggetto</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td></tr> <tr> <td rowspan="2">MM</td><td>dist. (m)</td><td>0,05</td><td>0,20</td><td>0,40</td><td>0,60</td><td>1,40</td><td>2,00</td></tr> <tr> <td>dist. (m)</td><td>-</td><td>0,10</td><td>0,23</td><td>0,40</td><td>0,59</td><td>0,77</td></tr> </tbody> </table>		code	STOM1	STOM2	STOM3	STOM4	STOM5	STOM6		ø oggetto	1	2	3	4	5	6	MM	dist. (m)	0,05	0,20	0,40	0,60	1,40	2,00	dist. (m)	-	0,10	0,23	0,40	0,59	0,77
	code	STOM1	STOM2	STOM3	STOM4	STOM5	STOM6																									
	ø oggetto	1	2	3	4	5	6																									
MM	dist. (m)	0,05	0,20	0,40	0,60	1,40	2,00																									
	dist. (m)	-	0,10	0,23	0,40	0,59	0,77																									

MODEL	STOS1...8
M18 shutters	
Material	anodized-aluminium
Applications on series	MS-MV-SS

DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION																																																																																
	<p>This accessory available for through-beam photoelectric switches M18 reduces the emitted beam allowing the detection of small targets (down to 1mm). The shutter consists of a threaded ring nut, a protection glass, an O-ring and an aperture to be screwed on the optical head of both emitter and receiver. Sensing distance referred to minimum detectable objects, are listed hereunder.</p> <table><tr><th>code</th><th>STOS1</th><th>STOS2</th><th>STOS3</th><th>STOS4</th><th>STOS6</th><th>STOS8</th><th>n/mont.</th></tr><tr><th>ø shutter (mm)</th><td>1</td><td>2</td><td>3</td><td>4</td><td>6</td><td>8</td><td>-</td></tr><tr><td>MSE-R dist. (m)</td><td>/</td><td>0,8</td><td>1,8</td><td>3,2</td><td>6,5</td><td>16</td><td>16</td></tr><tr><td>MVE-R object (mm)</td><td>/</td><td>1</td><td>1,5</td><td>2</td><td>3</td><td>4</td><td>4</td></tr><tr><td>MSE-D dist. (m)</td><td>/</td><td>1,5</td><td>3,5</td><td>6,5</td><td>15</td><td>26</td><td>32</td></tr><tr><td>MVE-D object (mm)</td><td>/</td><td>1</td><td>1,5</td><td>2</td><td>3</td><td>4</td><td>4</td></tr><tr><td>SSE-R dist. (m)</td><td>/</td><td>/</td><td>1</td><td>1,5</td><td>3,5</td><td>6,5</td><td>8</td></tr><tr><td>SSU-G object (mm)</td><td>/</td><td>1</td><td>2,5</td><td>4,5</td><td>8</td><td>8</td><td>8</td></tr><tr><td>SSU-V dist. (m)</td><td>/</td><td>1,3</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td></tr><tr><td>SSU-V object (mm)</td><td>/</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr></table>	code	STOS1	STOS2	STOS3	STOS4	STOS6	STOS8	n/mont.	ø shutter (mm)	1	2	3	4	6	8	-	MSE-R dist. (m)	/	0,8	1,8	3,2	6,5	16	16	MVE-R object (mm)	/	1	1,5	2	3	4	4	MSE-D dist. (m)	/	1,5	3,5	6,5	15	26	32	MVE-D object (mm)	/	1	1,5	2	3	4	4	SSE-R dist. (m)	/	/	1	1,5	3,5	6,5	8	SSU-G object (mm)	/	1	2,5	4,5	8	8	8	SSU-V dist. (m)	/	1,3	3	3	3	3	3	SSU-V object (mm)	/	1	1	1	1	1	1
code	STOS1	STOS2	STOS3	STOS4	STOS6	STOS8	n/mont.																																																																										
ø shutter (mm)	1	2	3	4	6	8	-																																																																										
MSE-R dist. (m)	/	0,8	1,8	3,2	6,5	16	16																																																																										
MVE-R object (mm)	/	1	1,5	2	3	4	4																																																																										
MSE-D dist. (m)	/	1,5	3,5	6,5	15	26	32																																																																										
MVE-D object (mm)	/	1	1,5	2	3	4	4																																																																										
SSE-R dist. (m)	/	/	1	1,5	3,5	6,5	8																																																																										
SSU-G object (mm)	/	1	2,5	4,5	8	8	8																																																																										
SSU-V dist. (m)	/	1,3	3	3	3	3	3																																																																										
SSU-V object (mm)	/	1	1	1	1	1	1																																																																										

MODEL	STO3
M18 right angle beam adapter	
Material	ABS
Applications on series	MS-MV-SK-SS-SA

DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
	<p>It allows a detection at 90° as to the optical axis of the photoelectric sensor. For M18 sensors.</p> <p>This accessory consists of an internal threaded body to be screwed on the optical head of the photoelectric switch. The mirror inside the body is set at 45° to the optical axis of the sensor allowing detection at 90°.</p> <p>The sensitivity loss is approx. 20-30%.</p> <p>Look at the "excess gain" curves to determinate the nominal sensing distance of different models.</p> <p>Do not use with diffuse reflection sensors.</p>

MODEL	ST37
M12 right angle beam adapter	
Material	anodized-aluminium
Applications on series	MM only for through-beam models

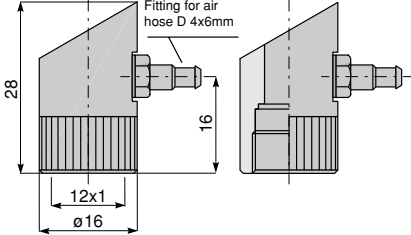
DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
	<p>It allows a detection at 90° as to the optical axis of the photoelectric sensor. For M12 sensors.</p> <p>This accessory consists of an internal threaded body to be screwed on the optical head of the photoelectric switch. The mirror inside the body is set at 45° to the optical axis of the sensor allowing detection at 90°.</p> <p>The sensitivity loss is approx. 20-30%.</p> <p>Look at the "excess gain" curves to determinate the nominal sensing distance of different models.</p>

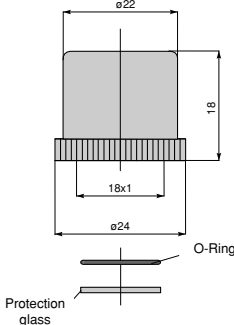
MODEL	ST55	DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
M30 right angle beam adapter			<p>This accessory allows a detection at 90° as to the optical axis of the photoelectric switch.</p> <p>For M30 sensors.</p> <p>It consists of a threaded body to be screwed on the optical photoelectric switch.</p> <p>The mirror inside the body is set at 45° to the optical axis of the sensor allowing detection at 90°.</p> <p>The sensitivity loss is approx. 20-30%.</p> <p>Look at the "excess gain" curves to determinate the nominal sensing distance of different models.</p>
Material	anodized-aluminium		
Applications on series	CS-MT-TK		

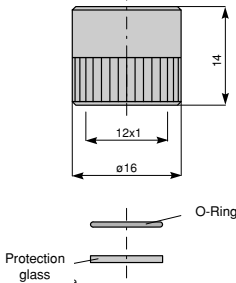

MODEL	ST28	DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
M7 right angle beam adapter			<p>This accessory allows a detection at 90° as to the optical axis of the fibre and consists of a threaded body to be screwed on the optical fibre-head.</p> <p>The mirror inside the body is set at 45° to the optical axis of the sensor allowing detection at 90°.</p> <p>The sensitivity loss is approx. 20-30%.</p> <p>Look at the "excess gain" curves to determinate the nominal sensing distance of different models.</p>
Material	anodized-aluminium		
Applications on series	CF-OF		

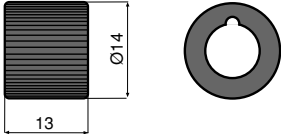
MODEL	ST30	DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
M18 antidust front			<p>It is an accessory in black anodized-aluminium to be screwed on the sensor head and has a side inlet pipe to be feeded with clean compressed-air. For models not with narrow beam the loss of sensitivity is 10%.</p> <p>Assembling</p> <p>The antidust front has to be screwed on the sensor head and it can be used in place of a screw nut to fix the sensor. It's necessary to use clean compressed-air to connect to the side inlet pipe.</p>
Material	anodized-aluminium		
Applications on series	MS-MV-SA-SS-SK		

MODEL	ST32	DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
M18 anti-condensation front			<p>It's an accessory in black anodized-aluminium to avoid condensation on the lenses of M18 sensors, when ambient temperature is lower than 0°C. It can be mounted only on special sensor with an heating element, available on request.</p> <p>Assembling</p> <p>The anticondensation front has to be mounted on the sensor head and locked with a M18 lock-nut. Don't use the front to lock the sensor in position because in this way, the head produced inside the sensor could be lost: use two further nuts to lock the sensor in position. The head of the sensor must penetrate 2cm into the front.</p>
Material	anodized-aluminium		
Applications on series	MS-MV-SA-SS		

MODEL		ST36	DIMENSIONAL DRAWING		DESCRIPTION / INSTALLATION	
M12 antidust front					<p>It is an accessory in black anodized-aluminium to be screwed on the sensor head and has a side inlet pipe to be feeded with clean compressed-air. For models not with narrow beam the loss of sensitivity is 30%.</p> <p>Assembling</p> <p>The antidust front has to be screwed on the sensor head and it can be used in place of a screw nut to fix the sensor. It's necessary to use clean compressed-air to connect to the side inlet pipe.</p> <p>Not usable with MM2 models</p>	
Material		anodized-aluminium				
Applications on series		HM-MM				

MODEL		ST50	DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
M18 protection front				<p>The accessory consists of a black anodized-aluminium body, an O'ring and a protection glass to screw on the sensor head, allowing use even in presence of chemical solvents. The loss of sensitivity is 25%.</p> <p>Refer to the "excess gain" curves.</p> <p>Assembling</p> <p>Before screwing the protection front on the sensor head, place O'ring and glass in perfect position or it will cause the glass breakage.</p> <p>It can be used in place of the screw nut to fix sensor.</p> <p>Not to be used with diffuse reflection models.</p>
Material	anodized-aluminium			
Applications on series	MS-SS-SA			

MODEL		ST60	DIMENSIONAL DRAWING		DESCRIPTION / INSTALLATION	
M12 protection front					The accessory consists of a black anodized-aluminium body, an O'ring and a protection glass to screw on the sensor head, allowing use even in presence of chemical solvents. The loss of sensitivity is 25%.	
					Refer to the "excess gain" curves.	
Material			anodized-aluminium		Assembling	
Applications on series			HM-MM		Before screwing the protection front on the sensor head, place O'ring and glass in perfect position or it will cause the glass breakage.	
					It can be used in place of the screw nut to fix sensor.	
					Not usable with MM2 models	

MODEL		ST08	DIMENSIONAL DRAWING		DESCRIPTION / INSTALLATION
fibre ring nut OF series					<p>This accessory allows a detection at 90° as to the optical axis.</p> <p>It consists of a threaded body to be screwed on the optical fibre head.</p> <p>The mirror inside the body is set at 45° to the optical axis of the sensor allowing detection at 90°.</p> <p>The sensitivity loss is approx. 20-30%.</p> <p>Refer to the "excess gain" curves.</p>
Material	acetalic resin				
Applications on series	MSF				

MODEL ST82		DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
trimmer adjustment accessory			Screwdriver for sensitivity adjustment and protection screws.
Material	FE60		
Applications on series	BS-BV-FS1-PS-SA-SS-SK-QX-RX		

MODEL ST100		DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
control unit for sensors			It verifies the functionality of all DC sensors with moderate absorption (50mA max.). Batteries are included 2x9V.
Material	plastic		
Applications on series	DC sensors		

MODEL ST23		DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
Undecal socket			It is absolutely necessary to perform the wiring of supply/amplifier units.
Material	plastic		
Applications on series	UR		

MODEL CSK/07-00		DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
7 pins connector			It is used to connect the TX photoelectric switches with W plug cable exit.
Material	plastic		
Applications on series	TX		

MODEL CHR/OB-00		DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
DIN43650 connector			<p>DIN 43650 standard female plug for use with TH sensors with Y-cable output.</p> <p>Consists of a connector cover and a terminal block to which are attached the wires of the cable to be connected.</p> <p>In the centre there is a screw used to fix the connector to the sensor in a secure manner.</p>
Material	polyamide		
Applications on series	TH (SBCR02)		

MODEL CL12/OB-00A		DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
axial connector			<p>M12 4-pole standard axial connector with terminals for use with RX photoswitches, SH and TH sensors.</p> <p>Just the connector is supplied for complete fitting and connection to a cable.</p>
Material	polyamide		
Applications on series	RX, SH, TH (SBCR02)		

MODEL CL12/OB-00C		DIMENSIONAL DRAWING	DESCRIPTION / INSTALLATION
right angle connector			<p>M12 4-pole right angle connector with terminals for use with RX photoswitches, SH and TH sensors.</p> <p>Just the connector is supplied for complete fitting and connection to a cable.</p>
Material	polyamide		
Applications on series	RX, SH, TH (SBCR02)		