

SS01 series

TRANSMITTER / RECIEVER MANUAL

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Product Data

Electrical Data		
	SST (Transmitter)	SSR (Receiver)
Supply voltage	12 – 30 V dc	
Max. Voltage ripple	15 % (within supply range)	
Current consumption	100 mA (RMS)	50 mA
Max. output load	-	200 mA
Reverse polarity protected	Yes	
Short circuit protected	-	Yes
Inductive load protection	-	Yes

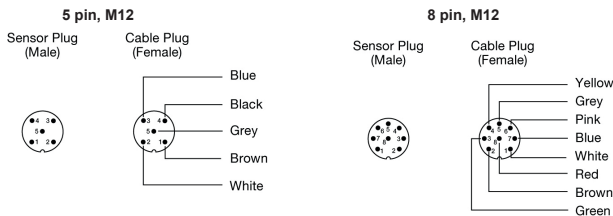
Environmental Data		
Light immunity @5° incidence	> 100.000 lux	
Temperature, operation	-30 to + 60 °C	
Sealing class	IP 67	
Marking		

Available Models

	Model	Beam spacing	Sensing Range
Transmitter	SST 01-10-xxx-xxx-05-H-1D1-0.5-J5	5 mm	10 m
	SST 01-10-xxx-xxx-10-H-1D1-0.5-J5	10 mm	
	SST 01-10-xxx-xxx-20-H-1D1-0.5-J5	20 mm	
Receiver	SSR 01-4-xxx-xxx-05-H-1D1-0.5-J8	5 mm	0 m - 4 m
	SSR 01-4-xxx-xxx-10-H-1D1-0.5-J8	10 mm	
	SSR 01-4-xxx-xxx-20-H-1D1-0.5-J8	20 mm	
	SSR 01-10-xxx-xxx-05-H-1D1-0.5-J8	5 mm	1 m – 10 m
	SSR 01-10-xxx-xxx-10-H-1D1-0.5-J8	10 mm	
	SSR 01-10-xxx-xxx-20-H-1D1-0.5-J8	20 mm	

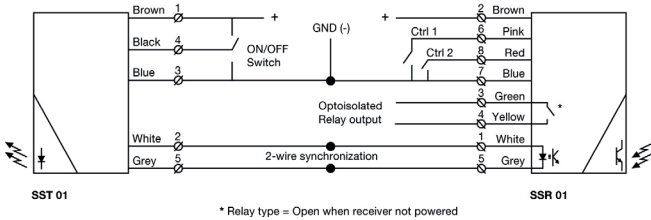
Connection

Wiring Diagrams



SST 5 pole M12 male connector SSR 8 pole M12 male connector

Transmitter Model	Black wire connected to (-)	Black wire not connected	Black wire connected to (+)
SST 01-10-xxx-xxx-xx-H-1D1-0.5-J5	not transmitting	transmitting	transmitting



Wiring diagram

Installation & Adjustments

Adjustment

No initial set up or adjustments are required, due the automatic signal-tracking (AST) feature that automatically adjusts the gain of each individual beam on the system.

- Mount the transmitter (SST) and receiver (SSR) facing each other and correctly aligned.
- Wire the sensor according to the wiring diagram. Notice that the pin 7 on the SSR and the pin 3 on SST (blue wires) must be connected together to a common GND (-). Make sure the SSR output load does not exceed 200 mA.
- Check for correct wiring before turning power on.
- When the power on indicators (green LED) is on the system is operating.
- The position of the receiver and transmitter must not be changed after power-up. The light curtain is only intended for static applications.

Output Logic

Detection	Object	Output status	Output indicator (yellow led)
	Present	Open	Off
	Absent	Closed	On

SST, Test Input

The transmitter SST can be externally disabled and enabled via the black control wire for test purposes. When the transmitter is disabled the receiver will break/open the output relay and the output indicator (yellow LED) will be turned off.

SSR, Parallel or crossed beam selection, Ctrl 1

Crossed beams can be selected by connecting pin 6 permanently (pink SSR Ctrl 1 wire) to ground (GND) before power on. The green LED (Power on indicator) will flash 2 times after power-up if crossed beams are selected.

SSR, Blanking function, Ctrl 2

This function will ensure that the light curtain will ignore the beams under normal operation which are obstructed during the blanking setup.

The blanking setup mode is activated by powering up the SSR with pin 8 (red SSR Ctrl2 wire) connected to ground (GND). Blanking setup time up to 2,5 seconds from power up (depending on the model). The SSR will blink with the green LED (approximately 0,5 Hz) when blanking is completed and stored in non-volatile memory. Remove the power to the SSR and remove the pin 8 wire from ground and power SSR up again to resume normal operation with blanked beams. The yellow LED (output indicator) on SSR will flash 2 times after power-up if one or more beams are blanked.

During normal operation pin 8 can be left connected to (+) V dc or disconnected. Notice that the beams will remain blanked until a new blanking procedure is done.

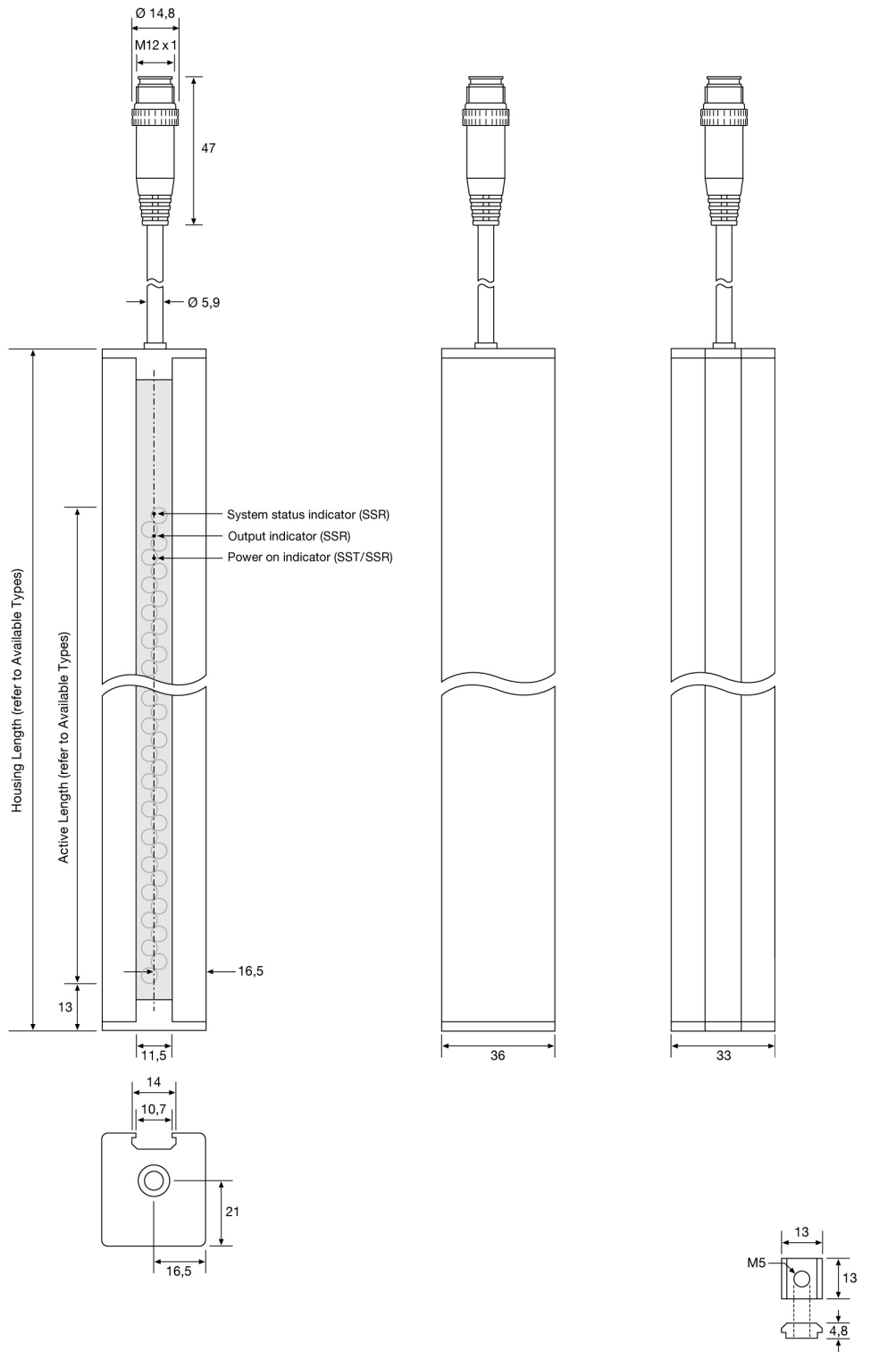
Indicators

Red LED	Status indicator
Yellow LED	Output indicator
Green LED	Power on indicator

Troubleshooting

Probable Reason	Corrective Action
1. Symptom: Status indicator (Red LED) on SSR is constant on.	
SST has no power.	Check supply and supply cable to the SST
SST & SSR white, grey and blue wires are not connected correctly.	Connect the wires.
2. Symptom: Status indicator (Red LED) on SSR is flashing quickly after power-up.	
One or more beams are obstructed during power-up	Remove obstruction between SSR and SST or perform a blanking for the SSR to ignore the obstruction.
3. Symptom: Green LED on SSR is flashing.	
Blanking setup is completed.	Turn off the SSR. Remove connection between pin 8 (red wire) and (-) pin 7 (blue wire). Turn the SSR on again. Be aware that beams may now be blanked. Repeat correct blanking process without obstruction of any beams if no beams are intended to be blanked.
4. Symptom: Output indicator (Yellow LED) on SSR is flashing.	
Severe electrical interference.	Separate SSR and SST supply cable from high voltage cables.
Severe ambient light.	Swap position of SSR and SST.
Cross talk from another light curtain or photo sensor	Swap position of SSR and SST.
Cross talk from a nearby HF strip light	Swap position of SSR and SST or remove the strip light.
5. Symptom: Status and output indicators (Red and Yellow LED's) are off and output is open.	
One or more beams are blocked or the rails are out of sensing range.	Remove obstruction or reduce the distance between the rails.
The test input on SST is activated	Remove SST pin 4 (black wire) from ground.

Dimensions and Descriptions



(Units in mm) (* 5 mm channel spacing showed in diagram.)



Warning

This product is not a safety system and must not be used as such. It is not designed for personnel safety applications, and must not be used as a stand alone personnel safety system.

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