ReeR Safegate Light Curtains – Body Protection

Safegate Type 4 access control barriers provide the ideal solution for protection in a wide range of high-risk industrial applications, in particular those requiring a high level of integration of the muting functions. Safegate greatly simplifies seamless integration of muting sensors with light curtain access control barriers

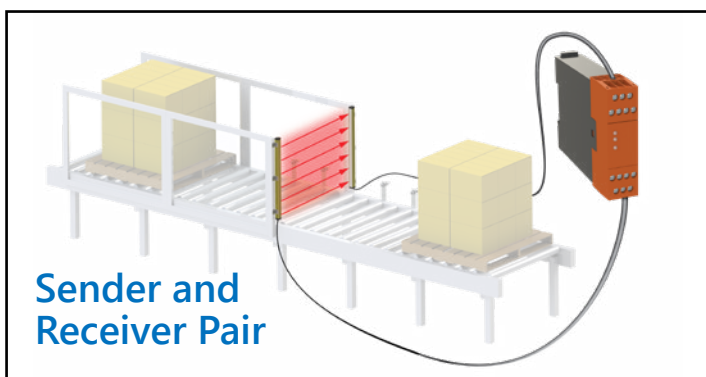## Hardware configuration with integrated status and muting lamp

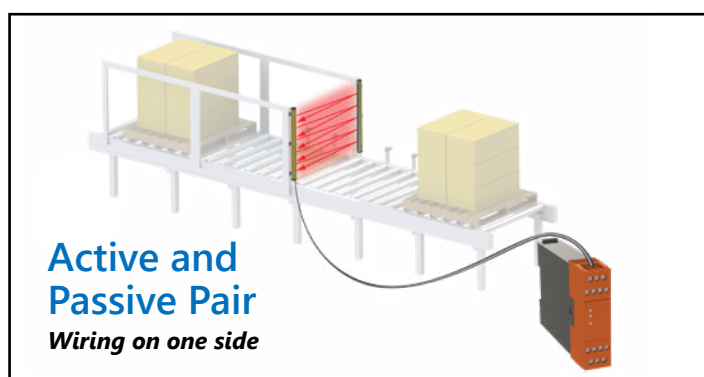**SMO-3B, SMO-4B, SMO-3B-TRX, SMO-4B-TRX**

Hardware or software configuration with integrated status and muting lamp

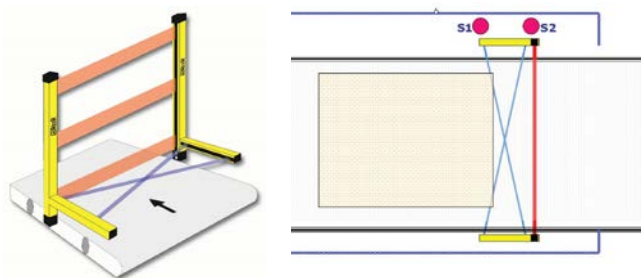
SMPO-3B, SMPO-4B, SMPO-3B-TRX, SMPO-4B-TRX

Sender and Receiver Pair

SMO-3B, SMO-4B, SMPO-3B, SMPO-4B

Active and Passive Pair
Wiring on one side

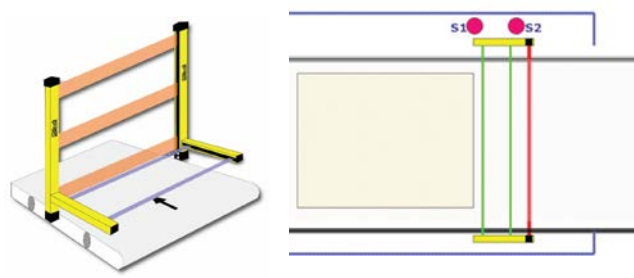**SMO-3B-TRX, SMO-4B-TRX, SMPO-3B-TRX, SMPO-4B-TRX**

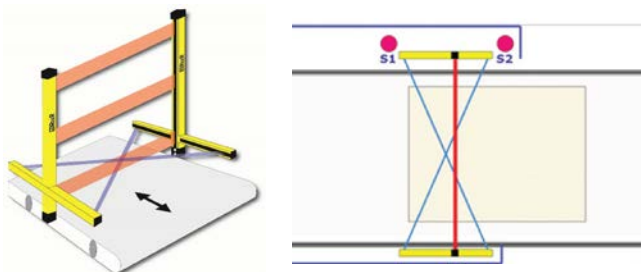### One way (2 sensor) crossed

MA-L2X, MZ-L2XP, MZ-L2XP-TRX
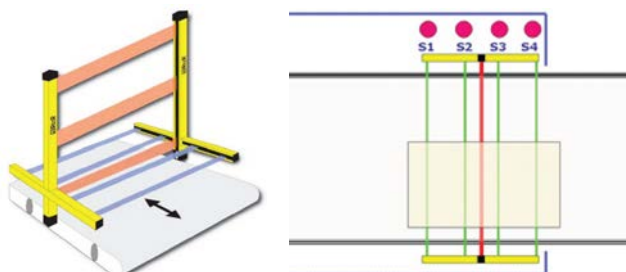
One way (2 sensor) parallel

MA-L2P-TRX, MZ-L2XP, MZ-L2XP-TRX

Two way (2 sensor) crossed

MA-T2X, MZ-T2X, MZ-T2X-TRX

Two way (4 sensor) parallel

MA-T4P-TRX, MZ-T4P, MZ-T4P-TRX

Safety Electrical Components

ReeR Safegate Light Curtains – Body Protection

With Muting Arm/Brackets

Muting Arms:
MA-L2X
MA-T2X
MA-L2P-TRX
MA-T4P-TRX

or

Muting Brackets:
MZ-L2XP
MZ-T2X
MZ-T4P
MZ-L2XP-TRX
MZ-T2X-TRX
MZ-T4P-TRX

Cable
M12 12-pin cable
(See recommended items for cabling)
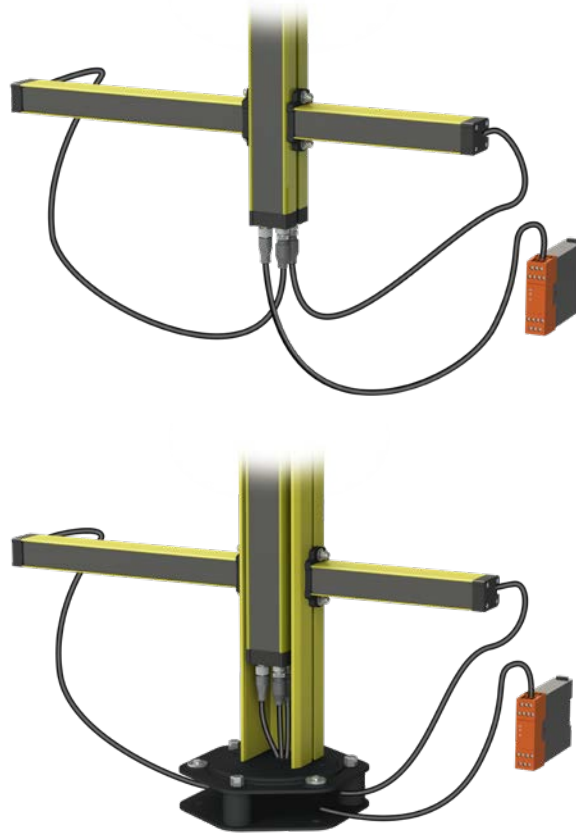
Light Curtains:
SMO-3B
SMO-4B
SMPO-3B
SMPO-4B
SMO-3B-TRX
SMO-4B-TRX
SMPO-3B-TRX
SMPO-4B-TRX

If a TRX light curtain is selected, then the muting arms/brackets part number should end in TRX as well.

Protective Columns (optional)
FMC-SGB3 (for SMxO-3B or SMxO-3B-TRX)
FMC-SGB4 (for SMxO-4B or SMxO-4B-TRX)

Protective Column Base:
(Required with Protective Column)
FMC-CB (shown)

or

FMC-CBL (not shown)

With Muting Photocells

Photo Cells
M5-A
M5-B
M-TRX-A
M-TRX-B

Y-Splitters
CSY12TX
CSY12RX

Cable
M12 12-pin cable
(See recommended items for cabling)
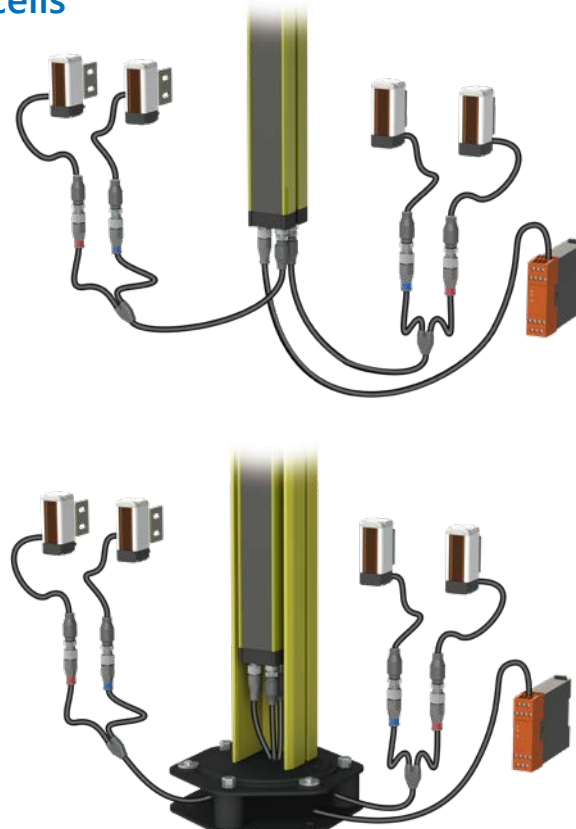
Light Curtain:
SMO-3B
SMO-4B
SMPO-3B
SMPO-4B
SMO-3B-TRX
SMO-4B-TRX
SMPO-3B-TRX
SMPO-4B-TRX

If a TRX light curtain is selected, then the muting arms/brackets part number should end in TRX as well.

Protective Columns (optional)
FMC-SGB3 (for SMxO-3B or SMxO-3B-TRX)
FMC-SGB4 (for SMxO-4B or SMxO-4B-TRX)

Protective Column Base:
(Required with Protective Column)
FMC-CB (shown)

or

FMC-CBL (not shown)

ReeR Muting and Automation Photocells

ReeR Muting and Automation Photocells – Selection Chart

Part Number	Price	Number of Beams	Sensing Range	Coding	Dimensional Drawing
Emitter/Receiver Versions					
M5-A	$165.00	5	0 to 3.5 m [0 to 11.48 ft]	A	PDF
M5-B	$162.00	5	0 to 3.5 m [0 to 11.48 ft]	B	PDF
Reflector Versions					
M-TRX-A	$120.00	1	0 to 5 m [0 to 16.40 ft]*	A	PDF
M-TRX-B	$122.00	1	0 to 5 m [0 to 16.40 ft]*	B	PDF

M5-A / M5-B

* Dependent on type of reflector used (see specifications below)

ReeR Muting and Automation Photocells – Specifications

Model		Micron M5 Emitter	Micron M5 Receiver	M-TRX-A / M-TRX-B
Power Supply		24VDC ± 20%		
Power Consumption at 24VDC		1W		0.2 W
Number of Beams		5		1
Working Range		0-3.5 m [0 to 11.48 ft]		0 to 2.5 m [0 to 8.20 ft] with C3F10 reflector
				0 to 3.5 m [0 to 11.48 ft] with C3F8 reflector
				0 to 3 m [0 to 9.84 ft] with CD8 reflector
Beams Pitch		10mm [0.39 in]		NA
Immunity to Ambient Light		>10,000 lx (solar)		NA
Emission Angle		±5°	±5°	±5°
Emission Wavelength		940nm (moduated infrared)	–	660nm (moduated red)
Response Time		<10ms	<10ms	65ms
Output		–	PNP 100maA max / dark-on	PNP 100maA max / dark-on
Connections		Pigtail 90cm [2.95 ft] with M12 5 pin connector	Pigtail 90cm [2.95 ft] with M12 5 pin connector	Pigtail 90cm [2.95 ft] with M12 5 pin connector
MTTF$_d$		414.02 years	414.02 years	1759.31 years
Operating Temperature		-30 to +55°C [-22 to 131°F] (with no condensation)	-30 to +55°C [-22 to 131°F] (with no condensation)	-30 to +55°C [-22 to 131°F] (with no condensation)
Protection Degree		IP65	IP65	IP65
Dimensions	Width	28mm [1.10 in]	28mm [1.10 in]	28mm [1.10 in]
	Depth	30mm [1.18 in]	30mm [1.18 in]	30mm [1.18 in]
	Height	70mm [2.76 in]	70mm [2.76 in]	70mm [2.76 in]

Emitter

DISABLE (2)
0VDC (3)
(1) 24VDC
(5) PE
(4) n.c.

Receiver

n.c.(2)
0VDC (3)
(1) 24VDC
(5) PE
(4) OUT

TRX

n.c. (2)
0VDC (3)
(1) 24VDC
(5) PE
(4) OUT
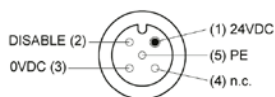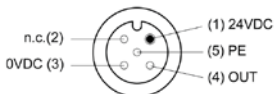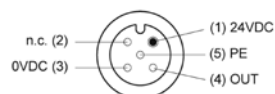
M5 Emitter

Pin	Color	Signal	Description	
1	Brown	24VDC	24VDC power supply	
2	White	DISABLE	0VDC=ENABLE	24VDC=DISABLE
3	Blue	0VDC	0VDC power supply	
4	Black	NA	Not connected	
5	Gray	PE	Ground connection	

M5 Receiver

Pin	Color	Signal	Description	
1	Brown	24VDC	24VDC power supply	
2	White	NA	Not connected	
3	Blue	0VDC	0VDC power supply	
4	Black	OUT	0VDC=Area Free	24VDC=Area Obstructed
5	Gray	PE	Ground connection	

M TRX

Pin	Color	Signal	Description	
1	Brown	24VDC	24VDC power supply	
2	White	NA	Not connected	
3	Blue	0VDC	0VDC power supply	
4	Black	OUT	0VDC=Area Free	24VDC=Area Obstructed
5	Gray	PE	Ground connection	

Emitter/Receiver Application
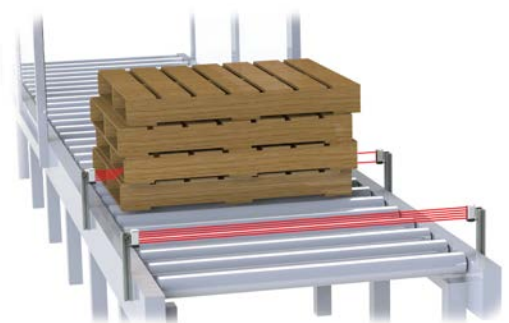
M5 photocells have five beams that are sent out by the emitter. If any one of the five beams is blocked, then the receiver's status signal will change to signify that there is an object in front of the photocell. This is particularly useful when there is a need to detect irregularly shaped items.

ReeR Safegate Light Curtain Accessories

Safegate Light Curtains Accessories Overview				
Part Number	Price	Description	Use With	Dimensional Drawing
Reflectors				
C3F10	$15.00	ReeR reflector, rectangular, 30 x 116 mm [1.18 x 4.57 in].	M-TRX-A or M-TRX-B	PDF
C3F8	$26.50	ReeR reflector, rectangular, 30 x 78 mm, [1.18 x 3.07 in] with bracket.	M-TRX-A or M-TRX-B	PDF
CD8	$14.50	ReeR reflector, round, 84mm [3.31 in].	M-TRX-A or M-TRX-B	PDF
Mounting Brackets				
SFB-4SG	$57.00	ReeR mounting bracket, replacement, standard, zinc plated steel. Package of 4. Mounting hardware included.	ReeR Safegate Light Curtains	PDF
SFB-6SG	$85.00	ReeR mounting bracket, replacement, standard, zinc plated steel. Package of 6. Mounting hardware included.	ReeR Safegate Light Curtains	PDF
Cables				
CS12USB	$45.00	ReeR programming cable, USB Type A male to 5-pin M12 quick-disconnect, 5-pole, PVC jacket, black, 6.5 ft [2m] cable length.	SMPO models	NA
CSY12RX	$53.00	ReeR muting receiver cable, 5-pin M12 quick-disconnect to (2) 5-pin M12 quick-disconnects, 5-pole, 24 VDC, PVC jacket, black, 1.3 ft [400mm] cable length, IP67.	ReeR Safegate Light Curtains	NA
CSY12TX	$53.00	ReeR muting emitter cable, 5-pin M12 quick-disconnect to (2) 5-pin M12 quick-disconnects, 5-pole, 24 VDC, PVC jacket, black, 1.3ft [400mm] cable length, IP67.	ReeR Safegate Light Curtians	NA

C3F10

SFB-4SG / SFB-6SG

CSY12TX / CSY12RX

When four M5 muting sensors are installed with a ReeR Safegate light curtain, CSY12TX and CSY12RX Y-splitters will be required.

C3F8

CD8

CS12USB

Pinouts

M12 Female To M5 emitter
M12 Female To M5 emitter
TX
M12 Male To emitter light curtain
CSY12TX

M12 Female To M5 receiver
M12 Female To M5 receiver
RX
M12 Male To receiver light curtain
CSY12RX