



Your future's safe!




SAFEGATE

Access control safety light curtains

Short form

access control barriers with integrated Muting functions

- **Flexible configuration**
Hardware or Software configuration to cover all Muting applications
- **Pre-configured Muting logics**
Exit-only (parallel/crossed),
Entry-Exit (parallel),
Entry-Exit (crossed)
- **Integrated Status and Muting lamp**
- **Fully scalable**
Change configuration at any time
- **Pre-configured and pre-wired Muting arms and Muting brackets**
- **M⁵ multi-beam Muting photocell**
Ideal for sensing unconventional objects
- **Vast range of accessories**
Including special mounting brackets,
floor mounting columns and connection boxes
- **Special versions**
Long Range (max. range up to 80 m)
Integrated laser pointer available
- **Transceiver versions available** 
With passive retro-reflective elements

Muting logics

Muting logics are set according to the final application and can be summarised as it follows:

L2X Logic - Crossed beams
(One-way, Exit-only)

Suitable solution for any applications with pallet exit

L2P Logic - Parallel beams
(One-way, Exit-only)

Suitable solution for applications with transparent material: i.e. bottling industry with pallet exit

T2X Logic - Crossed beams
(Two-way, Entry-Exit)

Suitable solution for the most common pallet infeed/outfeed applications. Ideal solution in case of a continuous flow of pallets even without separation between the pallets

T4P Logic - Parallel beams
(Two-way, Entry-Exit)

Suitable solution for applications with transparent material and application with presence of a pallet with reduced width or not systematically centered on the conveyor

- 1 Master connector**
Allows hardware configuration via different wiring options
- 2 Configuration connector (and auxiliary Muting lamp)**
Allows connection to PC for software configuration and connection of an auxiliary Muting lamp
- 3 Muting sensor(s) connector**
- 4 Muting sensor(s) connector**

- 5 Integrated Status and Muting lamp**
- 6 Side rail for easy installation of Muting sensors**
- 7 IP65 and IP67**
- 8 Status display**



SAFETY LEVEL

TYPE 4

SIL 3 - SILCL 3
PL e - Cat. 4



A unique range

Covering all Muting applications

1 Choose the barrier model

| | | | |
|---|---|---|--|
|  |  |  |  |
| S | SM | SMO | SMPO |
| No Muting functions <i>Long Range models available</i> | Hardware configuration | Hardware configuration <i>With integrated Status and Muting lamp</i> | Hardware or Software configuration <i>With integrated Status and Muting lamp</i> |

Also available as **TRX** TRANSCIVER with passive retro-reflective elements

2 Configure the Muting logic

Hardware configuration
via Master connector wiring

L2XP configurations
"Exit-only"
2 crossed or
parallel beams

T2X configurations
"Entry-Exit"
2 crossed beams

T4P configurations
"Entry-Exit"
4 parallel beams



● ● SM, SMO and SMPO models

Software configuration
via Safegate Configurator Software



**L2X L2P
T2X T4P
configurations**

SCS

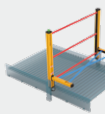
● SMPO models

3 Choose the Muting sensors

One-way / Exit-only

Two-way / Entry-Exit

**MA Muting
arms with
integrated
sensors**



MA L2X
2 integrated sensors
(Emitter-Receiver)



MA L2P TRX
2 integrated sensors
(Transceiver)



MA T2X
2 integrated sensors
(Emitter-Receiver)

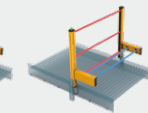
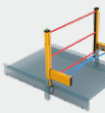


MA T4P TRX
4 integrated sensors
(Transceiver)

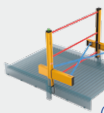


MA

**MZ Muting
brackets with
M^S or M^{TRX}
sensors**



MZ L2XP / TRX
2 M^S multi-beam sensors
(or 2 M^{TRX} for TRX versions)



MZ T2X / TRX
2 M^S multi-beam sensors
(or 2 M^{TRX} for TRX versions)

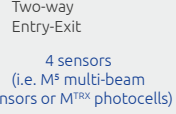
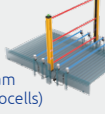
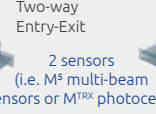
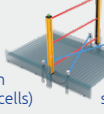
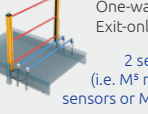
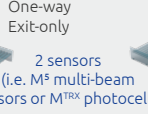


MZ T4P / TRX
4 M^S multi-beam sensors
(or 4 M^{TRX} for TRX versions)



MZ

**External M^S or
M^{TRX} sensors
(or photocells)**



2 sensors
(i.e. M^S multi-beam
sensors or M^{TRX} photocells)

2 sensors
(i.e. M^S multi-beam
sensors or M^{TRX} photocells)

2 sensors
(i.e. M^S multi-beam
sensors or M^{TRX} photocells)

4 sensors
(i.e. M^S multi-beam
sensors or M^{TRX} photocells)



**M^S
M^{TRX}**

Access control safety light curtains with integrated Muting functions

reersafety.com

An integrated solution

One single safety light curtain for all your access control needs

SAFEGATE

The most flexible Muting integrated safety light curtain on the market today

Each light curtain can be configured as Exit-only (L-Muting) or Entry-Exit (T-Muting) with crossed (X) or parallel (P) beams.

Configuration can be changed at any time.

Hardware configurable models (SM/SMO/SMPO) allow configuration of Muting logics and functional parameters via the Master connector wiring.

Software configurable models (SMPO) allow configuration of Muting logics and additional functional parameters (i.e. Partial Muting) via Safegate Configuration Software (SCS).

Programmable models (SMPO) allow further configuration parameters, ideal to address particular issues in more complicated application scenarios.

Safegate can be used with **MA Muting arms** (with pre-aligned and pre-configured integrated Muting sensors), with **MZ Muting brackets** (with M⁵ multi-beam sensors or M^{TRX} photocells) or with any other Muting sensor.

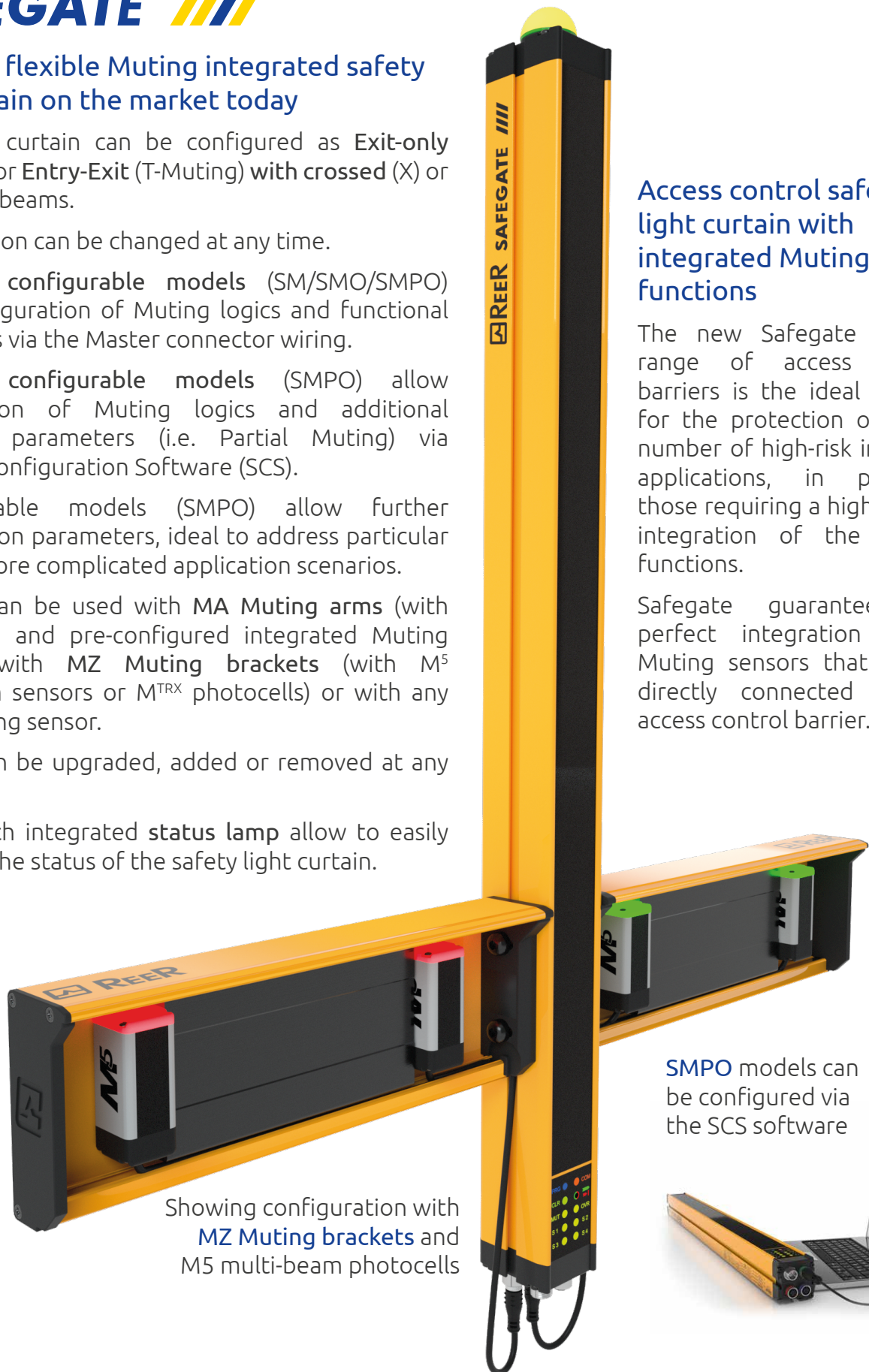
Sensors can be upgraded, added or removed at any time.

Models with integrated **status lamp** allow to easily recognise the status of the safety light curtain.

Access control safety light curtain with integrated Muting functions

The new Safegate Type 4 range of access control barriers is the ideal solution for the protection of a vast number of high-risk industrial applications, in particular those requiring a high level of integration of the Muting functions.

Safegate guarantees the perfect integration of all Muting sensors that can be directly connected to the access control barrier.



Showing configuration with **MZ Muting brackets** and M5 multi-beam photocells

SMPO models can be configured via the SCS software



Main features

Outstanding characteristics

■ SM models

Three hardware configuration options, selectable via different Master connector wiring.

L2X/P (one-way Muting with 2 crossed/parallel beams sensors)

T2X (two-way Muting with 2 crossed beams sensors)

T4P (two-way Muting with 4 parallel beams sensors)

■ SMO models

Same as SM models, with integrated Status and Muting lamp.

■ SMPO models

Allows hardware or software configuration of all Muting logics.

Hardware configuration via different main connector wiring (as per SMO models).

Software configuration via the provided SCS software: allows additional functional parameters options particularly useful in complicated or unordinary applications. With integrated **Status** and **Muting lamp**.

■ Muting sensors

MA Muting arms with pre-wired and pre-aligned sensors, can be used in all Muting logics.

MZ Muting brackets with multi-beam M⁵ photocells, can be used in all Muting logics. Safegate includes two Muting connectors, with four Muting inputs in 4-sensors configurations.

Special versions for transparent-object detection, i.e. glass (MA TRX G) and extended-length versions for high-speed conveyors (MA TRX V).

■ Partial Muting

Programmable models, allow the configuration of all Muting logics and additional functional parameters via the SCS software provided.

TRX
TRANSCIEVER



Versions with passive retro-reflective elements available



Showing configuration with **MA Muting** arms and integrated sensors



M SG BOX

The connection box allows a quick and reliable connection of the Safegate light curtains providing all major operating controls like Restart and Override in the guarded area.

Different models available.

Technical characteristics

Enhancing users' experience

Main features

Resolutions: 14, 30, 40 mm - 2, 3 and 4 beams

Emitter / Receiver and Transceiver (passive retro-reflector elements) versions available

Integration of the main safety functions, including self-testing of solid state outputs, external device monitoring (EDM) and Start/Restart interlock function

Cross-section: 55 x 50 mm

Protected height: 300 ... 2200 mm

Protection rating: IP65 and IP67

Operating temperature: -30 ... +55 °C (without condensing)

Integrated Status and Muting lamp (SMO/SMPO models)

Integrated status lamp



GUARD

Light curtain in Normal status



MUTING

Light curtain in Muting condition

Flashing



OVERRIDE

Light curtain in Override condition



BREAK

Light curtain beam interrupted

Flashing



FAIL

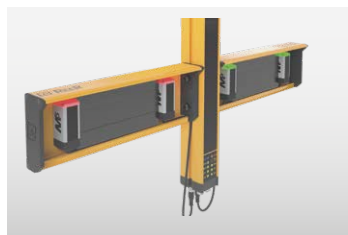
Light curtain in error condition

Muting arms kits, Muting brackets kits and M⁵ multi-beam photocells



Muting arms kits (MA)

MA L2X arms
(2 through-beam sensors)
MA L2P TRX arms
(2 retro-reflective sensors)
MA T2X arms
(2 through-beam sensors)
MA T4P TRX arms
(4 retro-reflective sensors)



Muting brackets kits (MZ)

MZ L2XP brackets
(with 2 M⁵ multi-beam sensors)
MZ L2XP TRX brackets
(with 2 M^{TRX} photocells)
MZ T2X brackets
(with 2 M⁵ multi-beam sensors)
MZ T2X TRX brackets
(with 2 M^{TRX} photocells)
MZ T4P brackets
(with 4 M⁵ multi-beam sensors)
MZ T4P TRX brackets
(with 4 M^{TRX} photocells)

M⁵



Also available in TRX version with retro-reflective Muting sensors

M^{TRX}

M⁵ multi-beam photocell

Through-beam photocell with 5 beams

Ideal for installation as Muting sensor, allows to detect also the most difficult objects like, for example, piles of pallets.

With a compact metal housing and a polycarbonate protective front window, it offers the right degree of robustness ideal also in the most demanding environments.

Provided with pigtail cable with M12 5-pole connector for easy installation.

The integrated status signaling lamp allows to easily verify the status of the system.

Special Muting sensors for transparent material and high speed conveyors.

High range Muting sensors (0 ... 5 m) also available



More than 60 years of quality and innovation

Founded in Turin, Italy in 1959, ReeR distinguished itself for its strong commitment to innovation and technology.

A steady growth throughout the years allowed ReeR to become a point of reference in the safety automation industry at a worldwide level.

The Safety Division is in fact today a world leader in the development and manufacturing of safety optoelectronic sensors and controllers.

ReeR is ISO 9001, ISO 14001 and ISO 45001 certified.



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