



*Your future's safe!*



# **SAFEGATE**

access control safety light curtains

*short form*

**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**

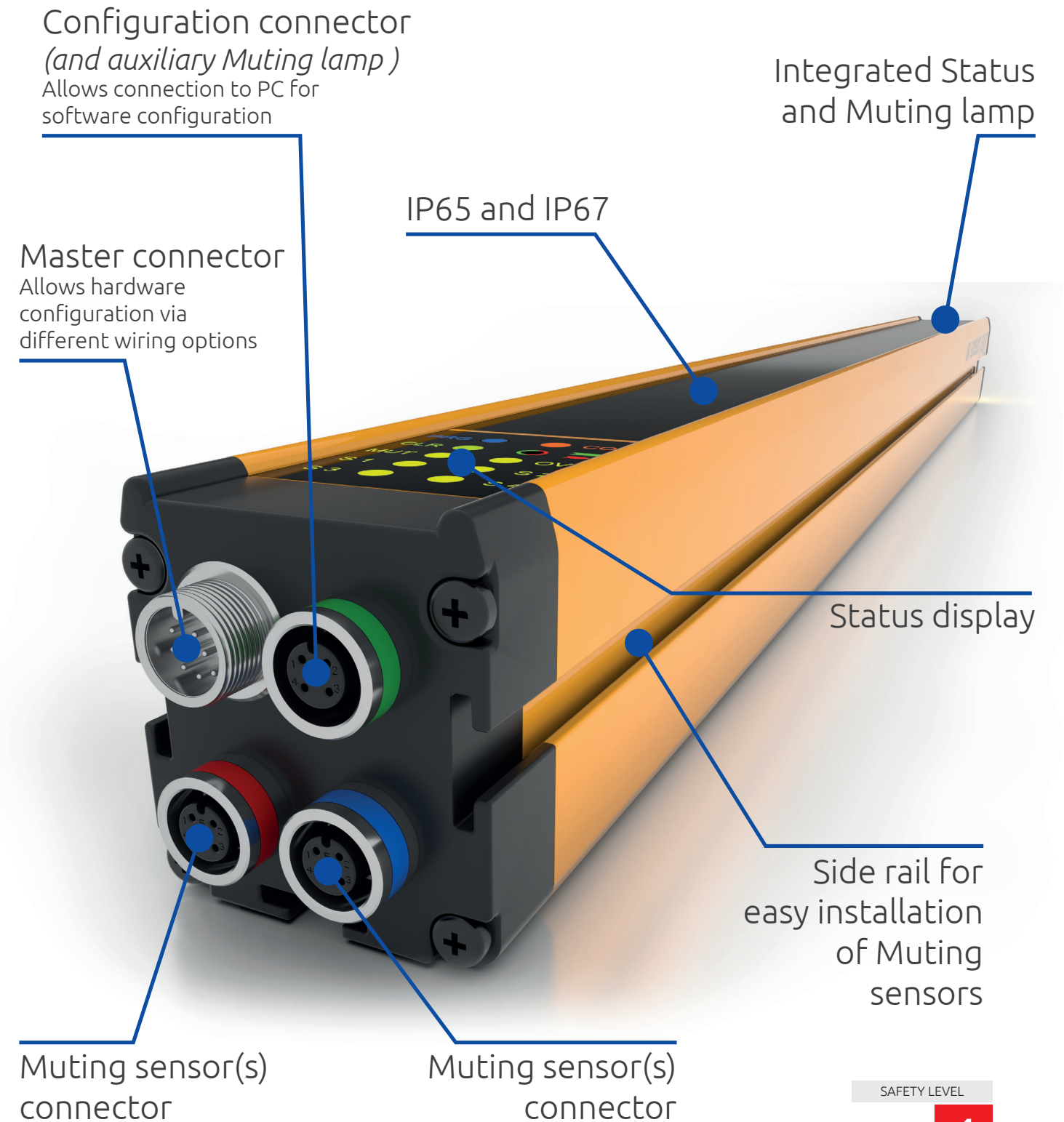
**New M5 multi-beam Muting photocell**  
Ideal for sensing unconventional objects

**Transceiver versions available**  
With passive retro-reflective elements



**Vast range of accessories**  
Including special mounting brackets, floor mounting columns  
and connection boxes

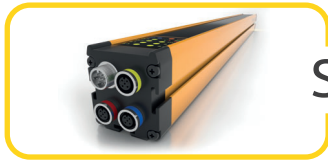
**access control barriers with  
integrated Muting functions**



# A unique range

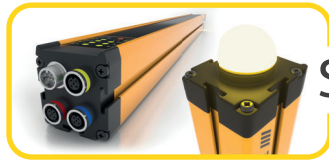
Covering all Muting applications

## 1 Choose the barrier model



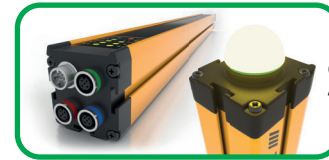
SM

Hardware configuration



SMO

Hardware configuration  
With integrated Status and Muting lamp



SMPO

Hardware or Software configuration  
With integrated Status and Muting lamp

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

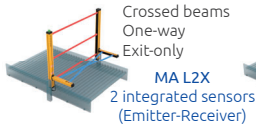
● SMPO models

## 3 Choose the Muting sensors

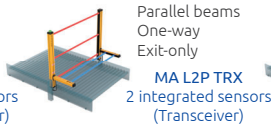
One-way / Exit-only

Two-way / Entry-Exit

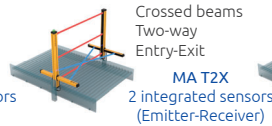
MA Muting  
arms with  
integrated  
sensors



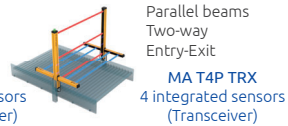
Crossed beams  
One-way  
Exit-only  
MA L2X  
2 integrated sensors  
(Emitter-Receiver)



Parallel beams  
One-way  
Exit-only  
MA L2P TRX  
2 integrated sensors  
(Transceiver)



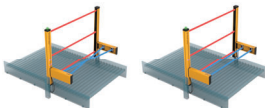
Crossed beams  
Two-way  
Entry-Exit  
MA T2X  
2 integrated sensors  
(Emitter-Receiver)



Parallel beams  
Two-way  
Entry-Exit  
MA T4P TRX  
4 integrated sensors  
(Transceiver)



MZ Muting  
brackets with  
M<sup>5</sup> or M<sup>TRX</sup>  
sensors



Crossed or Parallel beams  
One-way  
Exit-only  
MZ L2XP / TRX  
2 M<sup>5</sup> multi-beam sensors  
(or 2 M<sup>TRX</sup> for TRX versions)



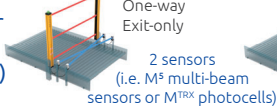
Crossed beams  
Two-way  
Entry-Exit  
MZ T2X / TRX  
2 M<sup>5</sup> multi-beam sensors  
(or 2 M<sup>TRX</sup> for TRX versions)



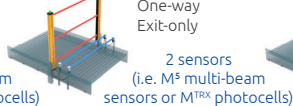
Parallel beams  
Two-way  
Entry-Exit  
MZ T4P / TRX  
4 M<sup>5</sup> multi-beam sensors  
(or 4 M<sup>TRX</sup> for TRX versions)



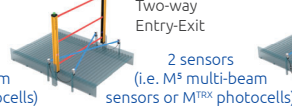
External M<sup>5</sup> or  
M<sup>TRX</sup> sensors  
(or photocells)



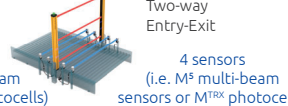
Crossed beams  
One-way  
Exit-only  
2 sensors  
(i.e. M<sup>5</sup> multi-beam  
sensors or M<sup>TRX</sup> photocells)



Parallel beams  
One-way  
Exit-only  
2 sensors  
(i.e. M<sup>5</sup> multi-beam  
sensors or M<sup>TRX</sup> photocells)



Crossed beams  
Two-way  
Entry-Exit  
2 sensors  
(i.e. M<sup>5</sup> multi-beam  
sensors or M<sup>TRX</sup> photocells)



Parallel beams  
Two-way  
Entry-Exit  
4 sensors  
(i.e. M<sup>5</sup> multi-beam  
sensors or M<sup>TRX</sup> photocells)



access control barriers with integra

# An integrated solution

One single barrier for all your access control needs

## SAFEGATE

### The most flexible Muting integrated barrier on the market today

Each barrier 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 M<sup>5</sup> multi-beam sensors or M<sup>TRX</sup> 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 barrier.

### Access control barrier 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.

SMPO models can be configured via the SCS software



Showing configuration with **MZ Muting brackets** with M<sup>5</sup> multi-beam photocells

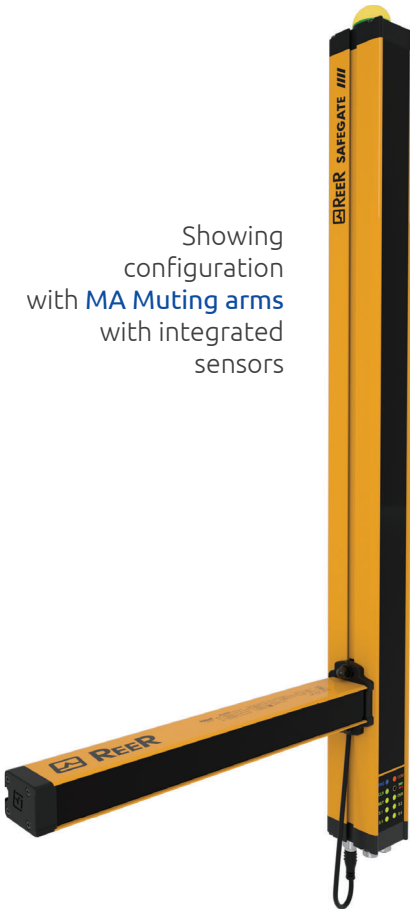
# ted Muting functions



# Main features

## Outstanding characteristics

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



**TRX**  
TRANSCIEVER

Versions with passive retro-reflective elements available



### 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; software configuration 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 for all Muting logics configurations.

MZ Muting brackets with multi-beam M<sup>5</sup> photocells for all Muting logics configurations.

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

*Safegate is equipped with two integrated Muting connectors with four Muting inputs, in 4-sensors configurations, the use of a Y-splitter is mandatory.*

### Partial Muting

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

### 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.

### 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*

# SAFEGATE



# Technical characteristics

## Enhancing users' experience

### Main features

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

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

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

	<b>GUARD</b> Light curtain in Normal status
	<b>MUTING</b> Light curtain in Muting condition
Flashing 	<b>OVERRIDE</b> Light curtain in Override condition
	<b>BREAK</b> Light curtain beam interrupted
Flashing 	<b>FAIL</b> Light curtain in error condition

## Muting arms kits, Muting brackets kits and M<sup>5</sup> 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 M<sup>5</sup> multi-beam sensors)

MZ L2XP TRX brackets  
(with 2 M<sup>TRX</sup> photocells)

MZ T2X brackets  
(with 2 M<sup>5</sup> multi-beam sensors)

MZ T2X TRX brackets  
(with 2 M<sup>TRX</sup> photocells)

MZ T4P brackets  
(with 4 M<sup>5</sup> multi-beam sensors)

MZ T4P TRX brackets  
(with 4 M<sup>TRX</sup> photocells)



#### Special versions

*Special Muting arms and brackets for transparent objects applications (i.e. glass) and high-speed conveyors*

### M<sup>5</sup> multi-beam photocell

Through-beam barrier type photocell with 5 beams.

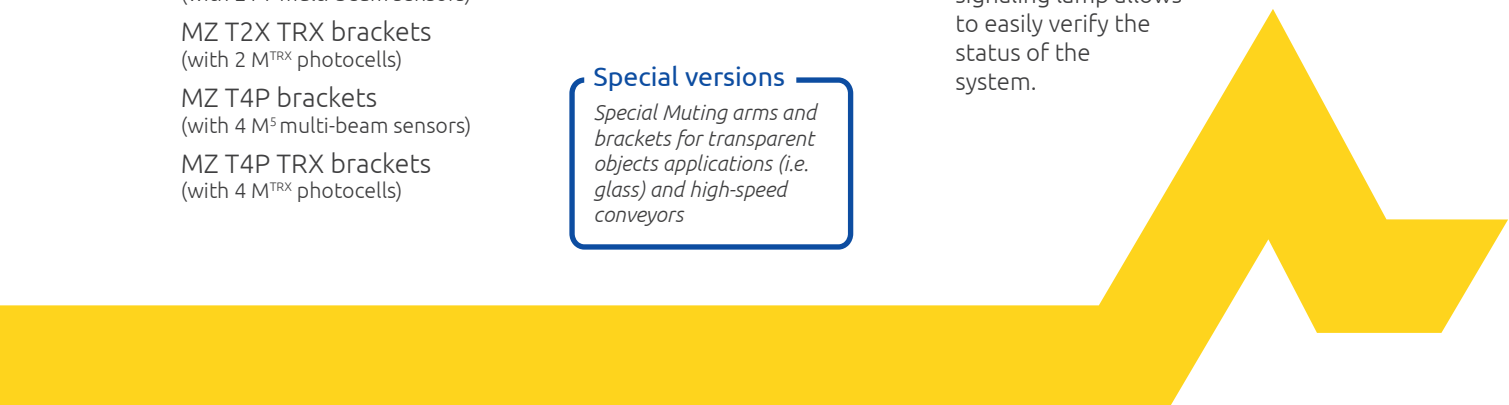
Ideal for installation as Muting sensor, allows to detect also the most difficult objects like, for example, piles of pallets.

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.

# M<sup>5</sup>





*Your future's safe!*

### 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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