your future’s safe!

MOSAIC
modular safety integrated controller

short form
Key features
Mosaic is a safety hub able to manage all safety functions of a machinery or a plant.
Configurable and scalable.
Allows cost reductions and minimal wiring.

Mosaic can manage safety sensors and signals such as
Light curtains, photocells, laser scanners, emergency stops, electromagnetic switches, guard-lock safety door switches, magnetic switches, RFID switches, safety mats and edges, two-hands controls, hand grip switches, encoders, proximities for safety speed control and analogue sensors (i.e. loading cells, pressure switches, temperature measurement, flow and level measurement, etc.).

Advantages
Reducing the number of devices and wiring used and, therefore, the overall size of the project.
Speeding-up control panel construction.
Allows tamper-proof system configurations.
All logic is configured through a graphic interface. No more laborious wiring is needed as with traditional solutions.
A lower number of electromechanical components also means a better Performance Level and, therefore, a higher Safety Level.
The project report provides the actual values of PFH, DCavg and MTTFd according to EN 13849-1 and EN 62061.

A unique safety controller: modular, expandable and configurable

Watch the video!
Connect up to 14 expansion units to the Master Unit

Enhanced Master Unit
- 8 digital inputs
- 4 inputs for Start/Restart interlock and EDM
- 2 pairs of OSSD safety outputs (PNP 400 mA)
- 4 status outputs (PNP 100 mA)
- 4 test outputs

Standard Master Unit
- 8 digital inputs
- 2 inputs for Start/Restart interlock and EDM
- 2 pairs of OSSD safety outputs (PNP 400 mA)
- 2 status outputs (PNP 100 mA)
- 4 test outputs (for short-circuits monitoring)

Master Units
- Enhanced Master Unit
- Standard Master Unit

Additional I/O
- Additional inputs
- Additional outputs

Field-bus units
- CC-Link
- MBCCL
- MBU
- USB
- MODBUS
- Modbus TCP
- MBMR
- MBP
- Field-bus units
- MBx
- EthernetIP
- MBC
- Ethernet
- CANopen
- Pro
diviceNET
- EtherCAT
- Pro
- Modbus RTU

System composed of Master Unit and expansions
- System consists of a Master Unit and up to 14 expansion units

Fieldbus units
- MI8/MI16/MI12T8
- MI8O2/MI8O4*
- MI8O2/MI8O4
- MI8/MI16/MI12T8
- MI8O2/MI8O4*
- MI8O2/MI8O4
- MI8/MI16/MI12T8
- MI8O2/MI8O4*
- MI8O2/MI8O4
- MI8/MI16/MI12T8
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**Mosaic Safety Designer**

Easy-to-use designer software included with M1 and M1S Master Units. Drag & Drop functionality allows to easily create all logic scenarios in a machine directive compliant environment.

- **Built-in Monitor**
- **Built-in Simulator**
- Drag & Drop
- User-friendly
- Real-time monitor
- Design validation
- Simulation
- Security password
- Reports and log files
- Project information

**Mosaic Safety Configuration**

Memory

Removable memory card. Ideal for saving Mosaic configuration data for subsequent transfer to a new device (without connecting to a PC) or for backup

**Mosaic Safety Communication**

Allows communication between the various units through a proprietary high-speed safety bus

**MTB**

Screw Terminal Blocks

Removable terminal blocks with screw contacts

**MTBC**

Clamp Terminal Blocks

Removable terminal blocks with clamp contacts

**MCT**

Remote Interface Units

Interface module allowing the connection of remote expansion units via the MSC safety bus
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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