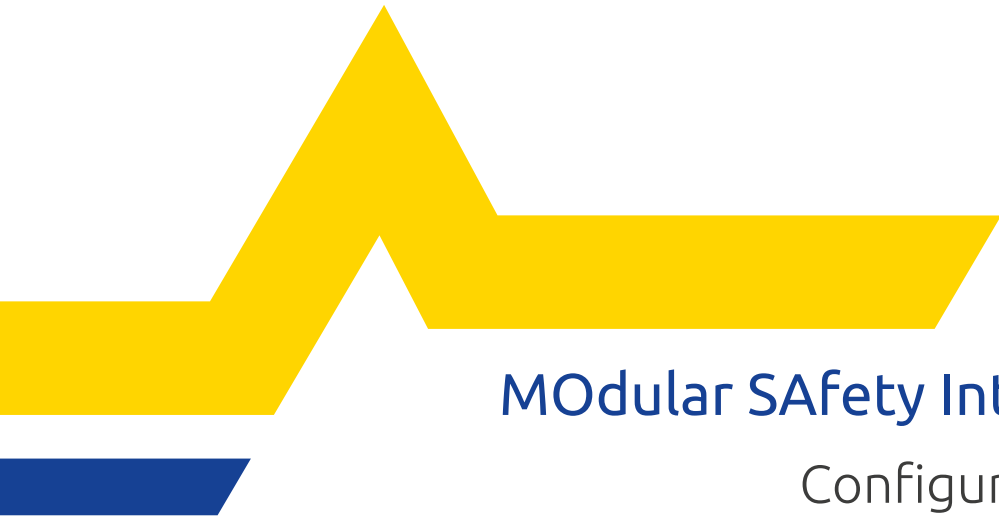




Safety. Detection. Control.



MOSAIC

MOdular SAFETY Integrated Controller

Configurable safety controller



A unique safety controller: modular, expandable and configurable

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, electromechanical switches, guard-lock safety door switches, magnetic switches, RFID switches, safety mats and edges, two-hands controls, hand grip switches, encoders and proximities for safety speed control.

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.



MOSAIC

MOdular SAFety Integrated Controller



SAFETY LEVEL

SIL 3

SIL 3 - SILCL 3
PL e - Cat. 4

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communication

speed monitoring



MBx

Field-bus units

- MBD Profibus DP
- MBD DeviceNET
- MBC CANopen
- MBEI EthernetIP
- MBEI2B EthernetIP
- MBEC EtherCAT
- MBEP Profinet
- MBMR Modbus RTU
- MBEM Modbus TCP/IP
- MBU USB

MCT

Interface connection units

Interface module allowing the connection of remote expansions via the proprietary MSC bus

MCT1

1 connection interface
(1 I/O cable)

MCT2

2 connection interface
(2 I/O cables)

MV0/MV1/MV2

Speed monitoring units

Safety speed monitoring (up to PL e) for: Zero speed control, Maximum speed control, Speed range control, Direction

MV0

Input for 2 proximity switches

MV1

Input for 1 incremental encoder and 2 proximity switches

MV2

Input for 2 incremental encoders and 2 proximity switches

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Connect up to 14 expansion units to the M1 master unit

safety relays



MR2/MR4

Safety relay output units

MR2

2 safety relays with guided contacts

2 NO + 1 NC contacts (250 VAC 6 A)

1 NC contacts for EDM feedback

MR4

4 safety relays with guided contacts

4 NO + 2 NC contacts (250 VAC 6 A)

2 NC contacts for EDM feedback

MOR4/MOR4S8

Safety relay output units

MOR4

4 safety relays with guided contacts

4 NO contacts (250 VAC 6 A)

4 inputs for Start/Restart interlock and EDM

It is possible to select two different configurations via MSD:

4 independent single channel outputs

2 dual channel outputs

MOR4S8

As MOR4, with 8 status outputs (PNP 100 mA)

additional I/O



M1

Master unit

8 digital inputs

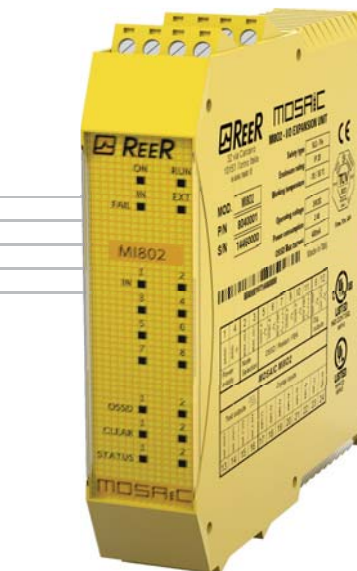
2 inputs for Start/Restart interlock and EDM

2 pairs OSSD Cat. 4 safety outputs (PNP 400 mA)

2 status outputs (PNP 100 mA)

4 test outputs

(for short-circuits monitoring)



MI8O2

Input/Output units

8 digital inputs

2 inputs for Start/Restart interlock and EDM

2 pairs OSSD Cat. 4 safety outputs (PNP 400 mA)

2 status outputs (PNP 100 mA)

4 test outputs (for short-circuits monitoring)

additional inputs



MI8/MI16/MI12T8

Input units

MI8

8 digital inputs

4 test outputs (for short-circuits monitoring)

MI16

16 digital inputs

4 test outputs (for short-circuits monitoring)

MI12T8

12 digital inputs

8 test outputs (for short-circuits monitoring)

Can manage up to 4 independent safety mats/edges

additional outputs



MO2/MO4

Output units

MO2

2 pairs OSSD Cat. 4
safety outputs
(PNP 400 mA)

2 inputs for Start/Restart
interlock and EDM

2 status outputs
(PNP 100 mA)

MO4

4 pairs OSSD Cat. 4
safety outputs
(PNP 400 mA)

4 inputs for Start/Restart
interlock and EDM

4 status outputs
(PNP 100 mA)

MO4L HC S8

High current output units

4 single channel or 2 pairs
OSSD Cat. 4 safety outputs
(PNP 2,0 A)

4 inputs for Start/Restart
interlock and EDM

8 status outputs
(PNP 100 mA)



MOS8/MOS16

Non-safety output units

MOS8

8 status outputs
(PNP 100 mA)

MOS16

16 status outputs
(PNP 100 mA)



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ReeR SpA

Via Carcano, 32

10153 Torino

Italy

T +39 011 248 2215

F +39 011 859 867

www.reersafety.com | info@reer.it



More than 50 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 BS OHSAS 18001 certified.



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