

## MI8/MI16 INPUT EXPANSION MODULES

The MI8/MI16 expansion modules provide the MOSAIC system with:

- \* 8 (MI8) or 16 (MI16) digital inputs programmable with the *Mosaic Safety Designer* software.
- \* 4 output test to monitor short-circuits or overloads.
- \* Connection to M1 via MSC 5-way ReeR proprietary bus.
- \* Amovable terminal blocks for the electrical connections with external devices.



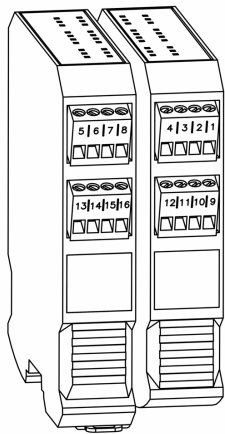
**MI16 safety module**

### Technical Data

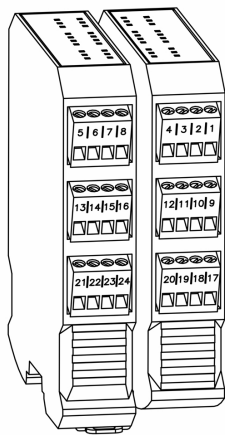
Model	MI8	MI16
PFHd (IEC 61508:1998)	5.75E-9	7.09E-9
Rated voltage	24VDC ± 20%	
Dissipated power	3W max	
Digital INPUT (n°/description)	8	16
	PNP active high (EN 61131-2)	
OUTPUT test (n°/description)	4 / to monitor short-circuits, overloads	
OSSD (n°/description)	Solid state safety outputs PNP active high: 400mA@24VDC max	
M1 > module connection	ReeR proprietary 5-pole bus (MSC)	
Connection cable cross-section	0,5 ÷ 2,5 mm <sup>2</sup> / AWG 12÷30 (solid/stranded)	
Max length of connections	100m	
Operating temperature	-10 ÷ 55°C	
Max surrounding air temperature	55°C	
Storage temperature	-20 ÷ 85°C	
Relative humidity	10% ÷ 95%	
Enclosure material	Polyamide	
Enclosure protection class	IP 20	
Terminal blocks protection class	IP 2X	
Fastening	Quick coupling to rail according to EN 60715	
Dimensions (h x l x d)	108 x 22,5 x 114,5	



## Electrical Connections



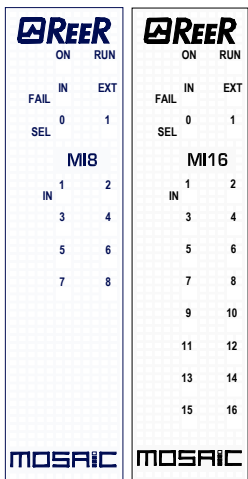
MI8



MI16

PIN	SIGNAL NAME		OPERATION
	MI8	MI16	
1	24VDC	24VDC	24VDC Power supply
2	NODE_SEL0	NODE_SEL0	Node selection
3	NODE_SEL1	NODE_SEL1	
4	GND	GND	
5	INPUT1	INPUT1	Digital Input 1
6	INPUT2	INPUT2	Digital Input 2
7	INPUT3	INPUT3	Digital Input 3
8	INPUT4	INPUT4	Digital Input 4
9	OUT_TEST1	OUT_TEST1	Output to monitor short-circuits
10	OUT_TEST2	OUT_TEST2	Output to monitor short-circuits
11	OUT_TEST3	OUT_TEST3	Output to monitor short-circuits
12	OUT_TEST4	OUT_TEST4	Output to monitor short-circuits
13	INPUT5	INPUT5	Digital Input 5
14	INPUT6	INPUT6	Digital Input 6
15	INPUT7	INPUT7	Digital Input 7
16	INPUT8	INPUT8	Digital Input 8
17	-	INPUT9	Digital Input 9
18	-	INPUT10	Digital Input 10
19	-	INPUT11	Digital Input 11
20	-	INPUT12	Digital Input 12
21	-	INPUT13	Digital Input 13
22	-	INPUT14	Digital Input 14
23	-	INPUT15	Digital Input 15
24	-	INPUT16	Digital Input 16

## Light signals



MI8

MI16

MI8	LED				
	RUN GREEN	IN FAIL RED	EXT FAIL RED	SEL ORANGE	IN1÷8 YELLOW
NORMAL OPERATION	OFF if the unit is waiting for the first communication from the MASTER	OFF	OFF	Shows the NODE_SELO/1 signal table	INPUT condition
	FLASHES if no INPUT or OUTPUT requested by the configuration		ON incorrect external connection detected		
	ON if INPUT or OUTPUT requested by the configuration		only the number of the INPUT with the incorrect connection flashes		

MI16	LED				
	RUN GREEN	IN FAIL RED	EXT FAIL RED	SEL ORANGE	IN1÷16 YELLOW
NORMAL OPERATION	OFF if the unit is waiting for the first communication from the MASTER	OFF	OFF	Shows the NODE_SELO/1 signal table	INPUT condition
	FLASHES if no INPUT or OUTPUT requested by the configuration		ON incorrect external connection detected		
	ON if INPUT or OUTPUT requested by the configuration		only the number of the INPUT with the incorrect connection flashes		

