

MSI-mxE/Rx, MSI-mxE/Tx Modular Safety Interface Category 4



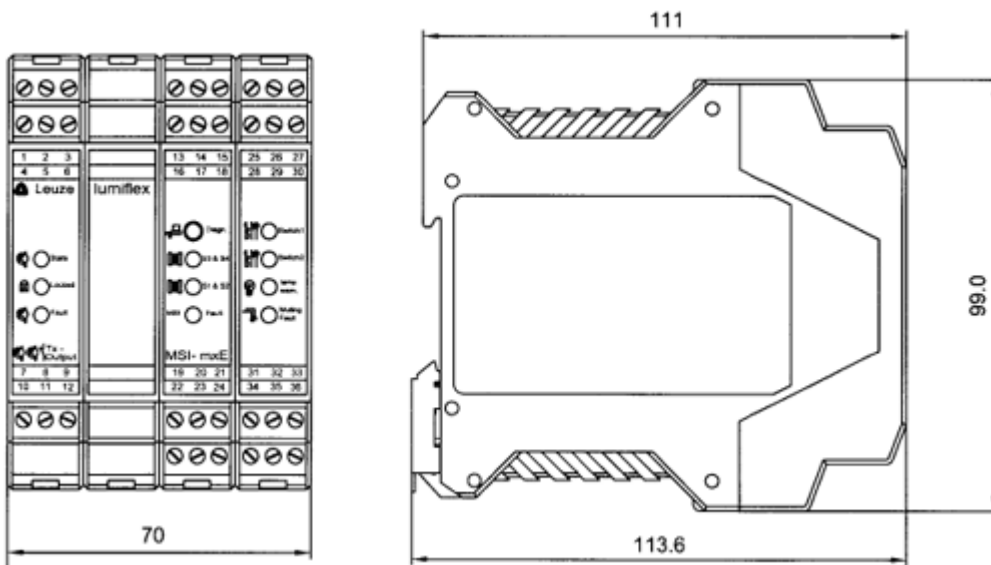
MSI-mxE/Rx, MSI-mxE/Tx

The modular safety interfaces of the MSI family serve as a link between one or more optoelectronic protective devices and the machine controls. The individual versions offer various safety-related additional functions, such as start/restart interlock, EDM (external device monitoring), test monitoring of type 2 sensors, single/double break control, or muting. All these components are obtainable either with relay outputs or with fail-safe pnp semiconductor outputs. The “x” versions also allow for the connection of safety switches or emergency STOP buttons of category 4. The “E” versions are designed for use in operating temperatures up to 60° Celsius.

Advantages

- Safety interfaces of type 4, with muting function in accordance with IEC 61496-1, EN 954-1
- 2 AOPDs of type 4, or up to 4 AOPDs of type 2 can be connected, 2 safety switches or 2 E-STOP buttons can be connected as well
- designed for operating temperatures up to 60° Celsius
- cUL certified

MSI-mxE/Rx, MSI-mxE/Tx
Dimensional Drawings



The given dimensions apply to MSI-mxE/Rx and MSI-mxE/Tx.

MSI-mxE/Rx, MSI-mxE/Tx
Electrical Connection

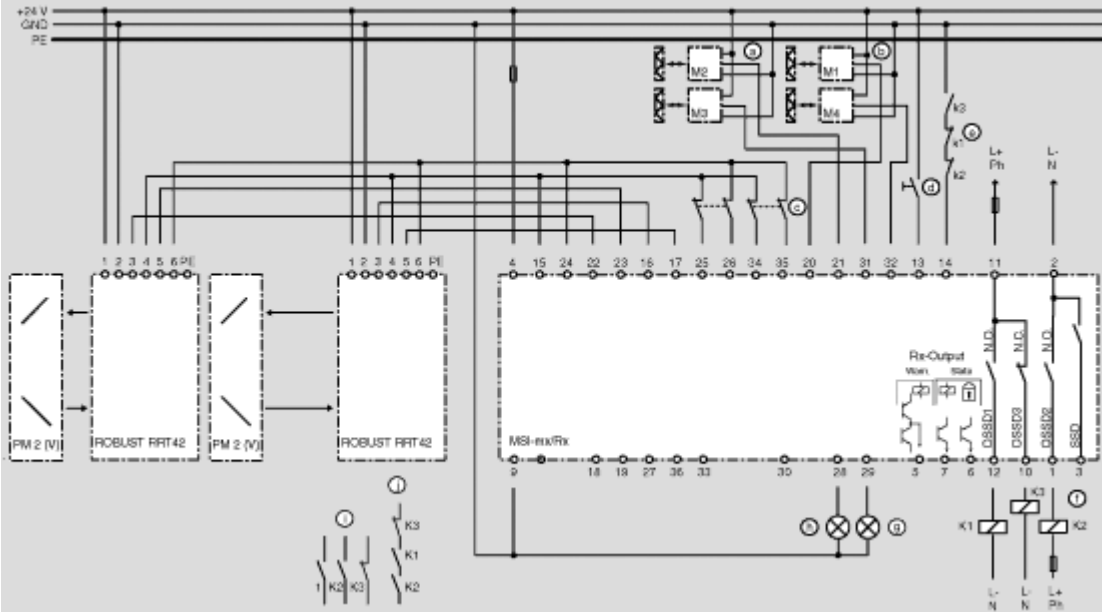
See the information on electrical connections for the [MSI-mx](#) standard version. (Displayed Below)

MSI-m, MSI-mx

Electrical Connection

Application drawing MSI-mx/Rx

Modular Safety Interface MSI-mx/Rx with 2 ROBUST RRT 22.2 safety light grids , Type 2, and passive mirror PM2(V), parrall double muting.



- a) Muting sensors, Mutingrange 1
- b) Muting sensors, Mutingrange 2
- c) safety switch
- d) Start/restart button
- e) Feedback circuit for relay monitoring
- f) Positively guided relay or motor relay, provide suitable spark suppression
- g) Muting lamp 24V/5W, Mutingrange 1
- h) Muting lamp 24V/5W, Mutingrange 2
- i) Switching off path 2-channel
- j) Switching off path 1-channel

* always use both contacts in the switching off path

DIP-Switch-Settings:

MSI-mx Modul

				up
DS1	DS2	DS3	DS4	down

I/O-mx Modul

		MU3		MU1	up
VU5	VU4		MU2		down

	Pay attention to the operating manual of the components please.
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MSI-m, MSI-mx

Technical Data

Safety Relay	MSI-m/R	MSI-mx/Rx	MSI-m/T	MSI-mx/Tx
Max. safety category (EN 954-1), Type in accordance with IEC-, EN 61496-1,	4			
Stop category (IEC-, EN 60204-1)	0			
Response time: AOPD Type 4 with semiconductor- output	18 ms		8 ms	
Response time: AOPD Type 4 with relay output, AOPD Type 2, safety switch	54 ms		44 ms	
Reactivation time	100 ms			
Supply voltage	24 V DC +/-15% (115 V/230V power supply as accessory)			
Max. Load on the safety outputs (2 normally open contacts, 2 pnp- semiconductor)	60V DC, 250 V AC, 6 A max.		24 V DC, 500 mA	
Max. Load on the safety outputs (1 normally open contact)	-	60V DC, 250 V AC, 6 A max.	-	-
Ambient temperature operation/storage	0..+55°/ -25...+70°			
Dimensions (HxBxT) [mm]	99 x 52,5 x 111,5 mm			