

## Technical data sheet

### Non-safe I/O module

Part no.: 50132998  
MSI-EM-IO84NP-03

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For illustration purposes only



## Technical data

### Basic data

|                     |                                 |
|---------------------|---------------------------------|
| Series              | MSI-EM                          |
| Type                | Non-safe I/O module             |
| Application         | Processing of non-safe signals  |
| Number of safe I/Os | 4 IN, 4 OUT, 4 programmable I/O |

### Functions

|           |   |
|-----------|---|
| Functions | Extension with 4 non-safe inputs, 4 non-safe outputs and 4 non-safe freely programmable I/Os (OSSDs)<br>Non-safe extension module for the MSI 400 configurable safety control |
|-----------|---|

### Characteristic parameters

|                    |                          |
|--------------------|--------------------------|
| Mission time $T_M$ | 20 years, EN ISO 13849-1 |
|--------------------|--------------------------|

### Electrical data

|   |                        |
|---|------------------------|
| <b>Performance data</b>                 |                        |
| Supply voltage $U_B$                    | 24 V, DC, -30 ... 25 % |
| Power consumption, max.                 | 0.5 W                  |
| <b>Supply circuit</b>                   |                        |
| Nominal voltage $U_N$                   | 24 V                   |
| <b>Output circuit</b>                   |                        |
| Number of outputs                       | 4 Piece(s)             |
| Number of configurable inputs/ outputs  | 4 Piece(s)             |
| Type of digital output                  | Transistor             |
| Short circuit protection, outputs       | Yes                    |
| Min. voltage permitted at the output    | 16.2 V                 |
| Max. voltage permitted at the output    | 30 V                   |
| Total output current, max.              | 4 A                    |
| Nominal output current per output, max. | 0.5 A                  |
| <b>Control circuit</b>                  |                        |
| Number of inputs                        | 4 Piece(s)             |
| Voltage permitted at the input          | 30 V                   |
| Input current at signal 1               | 3 mA                   |

### Interface

|      |                      |
|------|----------------------|
| Type | Internal bus (SBUS+) |
|------|----------------------|

### Connection

|                       |   |
|-----------------------|---|
| Number of connections | 1 Piece(s)                                |
| <b>Connection 1</b>   |   |
| Function              | Signal IN<br>Signal OUT<br>Voltage supply |
| Type of connection    | Terminal                                  |
| Type of terminal      | Spring-cage terminal                      |
| No. of pins           | 16 -pin                                   |

### Cable properties

|                           |  |
|---------------------------|--|
| Connection cross sections | 2 x 0.2 to 1.5 mm <sup>2</sup> , wire<br>2 x 0.2 to 1.5 mm <sup>2</sup> , wire<br>2 x 0.25 to 1.5 mm <sup>2</sup> , wire with wire-end sleeve (pressed in trapezium shape) |
|---------------------------|--|

### Mechanical data

|                       |                             |
|-----------------------|-----------------------------|
| Dimension (W x H x L) | 22.5 mm x 107 mm x 120.8 mm |
| Net weight            | 180 g                       |
| Housing color         | Gray                        |
| Type of fastening     | Snap-on mounting            |

### Environmental data

|                                    |               |
|------------------------------------|---------------|
| Ambient temperature, operation     | -25 ... 65 °C |
| Ambient temperature, storage       | -25 ... 70 °C |
| Relative humidity (non-condensing) | 10 ... 95 %   |

### Certifications

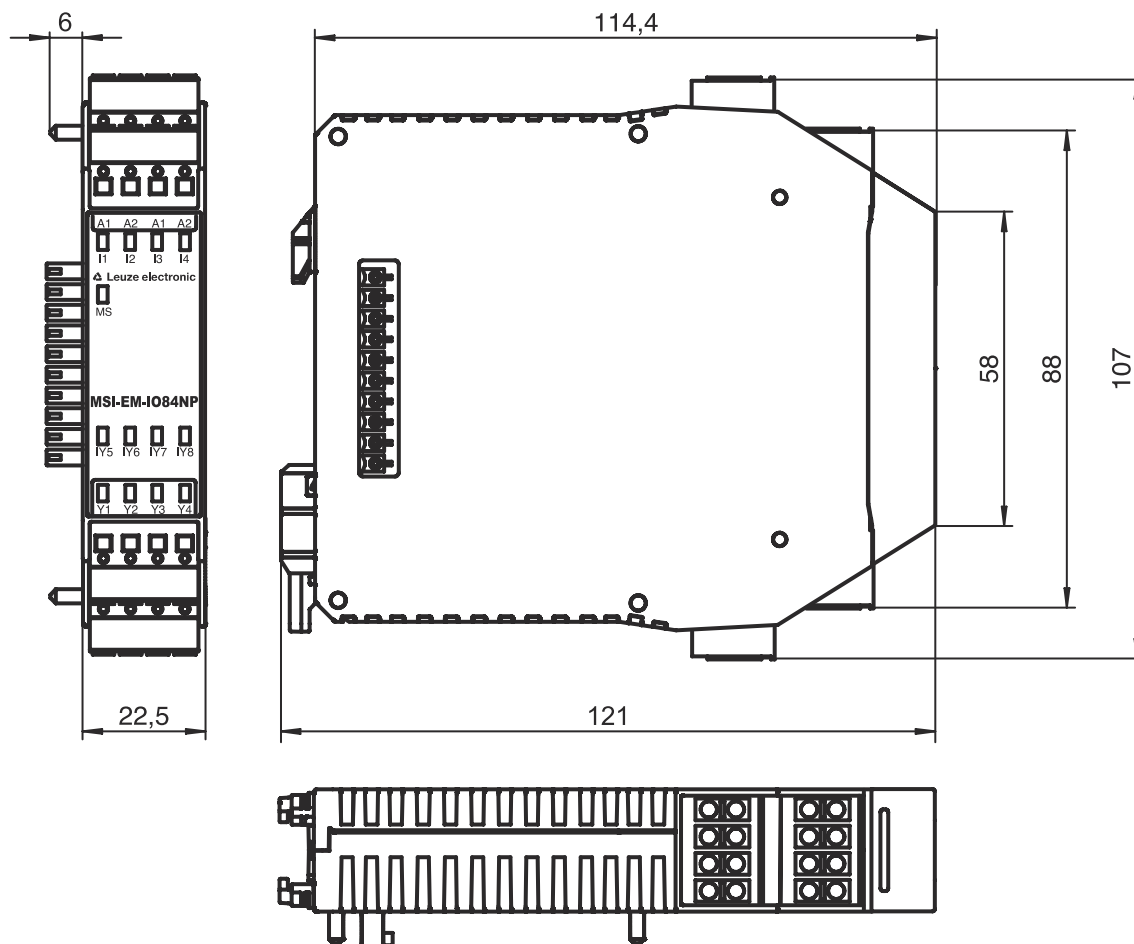
|  |                                      |
|--|--------------------------------------|
| Degree of protection                                       | IP 20 (terminals)<br>IP 40 (housing) |
| Protection class   | III                                  |
| Approvals  | c UL US                              |
| Vibration resistance                                       | 5 ... 150 Hz                         |
| Test procedure for oscillation in accordance with standard | EN 60068-2-6                         |
| Shock resistance, single shock                             | 30 g, 11 ms, EN 60068-2-27           |

### Classification

|                       |          |
|-----------------------|----------|
| Customs tariff number | 85371091 |
| ECLASS 5.1.4          | 27242204 |
| ECLASS 8.0            | 27242204 |
| ECLASS 9.0            | 27242204 |
| ECLASS 10.0           | 27242204 |
| ECLASS 11.0           | 27242204 |
| ECLASS 12.0           | 27242204 |
| ECLASS 13.0           | 27242204 |
| ECLASS 14.0           | 27242204 |
| ECLASS 15.0           | 27242204 |
| ECLASS 16.0           | 27242204 |
| ETIM 5.0              | EC001419 |
| ETIM 6.0              | EC001419 |
| ETIM 7.0              | EC001419 |
| ETIM 8.0              | EC001419 |
| ETIM 9.0              | EC001419 |
| ETIM 10.0             | EC001419 |
| UNSPSC 26.08          | 32151601 |

# Dimensioned drawings

All dimensions in millimeters



## Electrical connection

### Connection 1

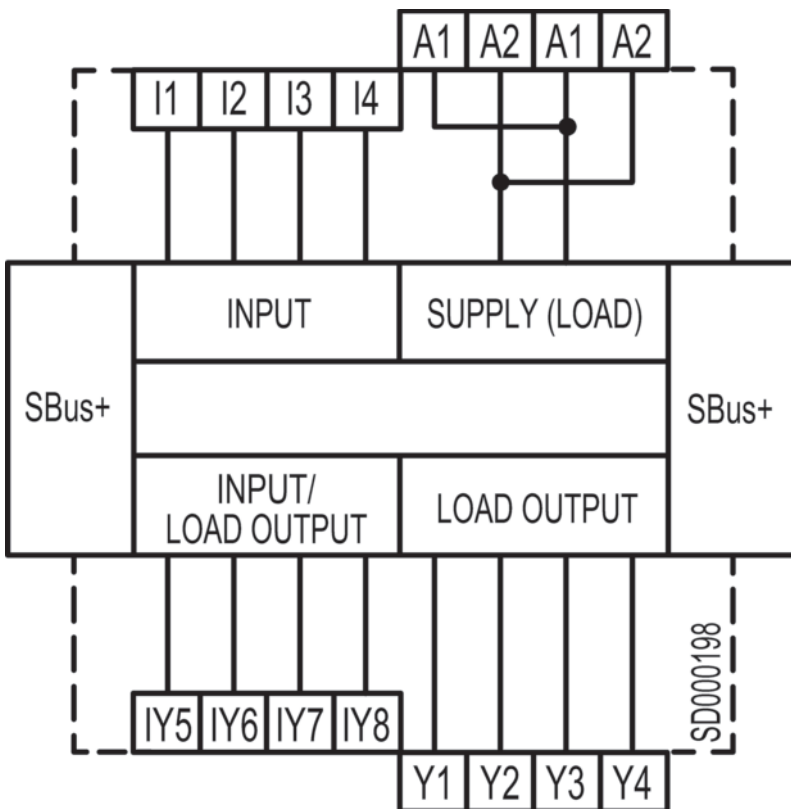
|                    |                      |
|--------------------|----------------------|
| Function           | Signal IN            |
|                    | Signal OUT           |
|                    | Voltage supply       |
| Type of connection | Terminal             |
| Type of terminal   | Spring-cage terminal |
| No. of pins        | 16 -pin              |

| Terminal | Assignment                  |
|----------|-----------------------------|
| A1       | +24 V                       |
| A1       | +24 V                       |
| A2       | GND                         |
| A2       | GND                         |
| I1       | Input                       |
| I2       | Input                       |
| I3       | Input                       |
| I4       | Input                       |
| IY5      | Input/output (configurable) |

# Electrical connection

| Terminal | Assignment                  |
|----------|-----------------------------|
| IY6      | Input/output (configurable) |
| IY7      | Input/output (configurable) |
| IY8      | Input/output (configurable) |
| Y1       | Output                      |
| Y2       | Output                      |
| Y3       | Output                      |
| Y4       | Output                      |

## Circuit diagrams



## Notes

**Observe intended use!**

- The product may only be put into operation by competent persons.
- Only use the product in accordance with its intended use.