

## Data sheet EM 123 (123-4EL01)

### Technical data

|   |  |
|---|--|
| <b>Order no.</b>  | <b>123-4EL01</b>                                 |
| Type  | EM 123   |
| <b>General information</b>  |  |
| Note  | -  |
| Features  | 16x DI<br>16x DO<br>DC 24 V<br>0,5 A<br>Isolated |
| <b>Current consumption/power loss</b>                               |  |
| Current consumption from backplane bus                              | 110 mA   |
| Power loss  | 6 W  |
| <b>Technical data digital inputs</b>                                |  |
| Number of inputs  | 16   |
| Cable length, shielded  | 1000 m   |
| Cable length, unshielded  | 600 m  |
| Rated load voltage  | -  |
| Current consumption from load voltage L+ (without load)             | -  |
| Rated value   | DC 24 V  |
| Input voltage for signal "0"  | DC 0...5 V                                       |
| Input voltage for signal "1"  | DC 15...28.8 V                                   |
| Input voltage hysteresis  | -  |
| Signal logic input  | Sinking input                                    |
| Frequency range   | -  |
| Input resistance  | -  |
| Input current for signal "1"  | 7 mA   |
| Connection of Two-Wire-BEROs possible                               | yes  |
| Max. permissible BERO quiescent current                             | 1.5 mA   |
| Input delay of "0" to "1"   | 3 ms   |
| Input delay of "1" to "0"   | 3 ms   |
| Number of simultaneously utilizable inputs horizontal configuration | 16   |
| Number of simultaneously utilizable inputs vertical configuration   | 16   |
| Input characteristic curve  | IEC 61131-2, type 1                              |
| Initial data size   | 2 Byte   |
| <b>Technical data digital outputs</b>                               |  |
| Number of outputs   | 16   |
| Cable length, shielded  | 1000 m   |
| Cable length, unshielded  | 600 m  |
| Rated load voltage  | DC 24 V  |
| Reverse polarity protection of rated load voltage                   | -  |
| Current consumption from load voltage L+ (without load)             | 30 mA  |

|   |                 |
|---|-----------------|
| Output current at signal "1", rated value                     | 0.5 A           |
| Signal logic output   | Sourcing output |
| Output delay of "0" to "1"                                    | max. 100 µs     |
| Output delay of "1" to "0"                                    | max. 350 µs     |
| Minimum load current  | -               |
| Lamp load   | 5 W             |
| Parallel switching of outputs for redundant control of a load | not possible    |
| Parallel switching of outputs for increased power             | not possible    |
| Actuation of digital input                                    | yes             |
| Switching frequency with resistive load                       | max. 1000 Hz    |
| Switching frequency with inductive load                       | max. 0.5 Hz     |
| Switching frequency on lamp load                              | max. 10 Hz      |
| Internal limitation of inductive shut-off voltage             | L+ (-52 V)      |
| Short-circuit protection of output                            | yes, electronic |
| Trigger level   | 1 A             |
| Number of operating cycle of relay outputs                    | -               |
| Switching capacity of contacts                                | -               |
| Output data size  | 2 Byte          |

### Status information, alarms, diagnostics

|                                  |                       |
|----------------------------------|-----------------------|
| Status display                   | green LED per channel |
| Interrupts                       | no                    |
| Process alarm                    | no                    |
| Diagnostic interrupt             | no                    |
| Diagnostic functions             | no                    |
| Diagnostics information read-out | none                  |
| Supply voltage display           | none                  |
| Group error display              | none                  |
| Channel error display            | none                  |

### Isolation

|                                    |          |
|------------------------------------|----------|
| Between channels                   | -        |
| Between channels of groups to      | 8        |
| Between channels and backplane bus | yes      |
| Insulation tested with             | DC 500 V |

### Datasizes

|                  |   |
|------------------|---|
| Input bytes      | 2 |
| Output bytes     | 2 |
| Parameter bytes  | 0 |
| Diagnostic bytes | 0 |

### Housing

|          |                    |
|----------|--------------------|
| Material | PPE / PA 6.6       |
| Mounting | Profile rail 35 mm |

### Mechanical data

|                              |                          |
|------------------------------|--------------------------|
| Dimensions (WxHxD)           | 101.6 mm x 76 mm x 48 mm |
| Net weight                   | 271 g                    |
| Weight including accessories | -                        |
| Gross weight                 | -                        |

### Environmental conditions

|                       |                 |
|-----------------------|-----------------|
| Operating temperature | 0 °C to 60 °C   |
| Storage temperature   | -25 °C to 70 °C |

## Certifications

|                  |     |
|------------------|-----|
| UL certification | yes |
| KC certification | -   |