

## Data sheet SM 021 (021-1BD50)

### Technical data

|   |                         |
|---|-------------------------|
| <b>Order no.</b>  | <b>021-1BD50</b>        |
| Type  | SM 021                  |
| Module ID   | 0004 9F84               |
| <b>General information</b>  |                         |
| Note  | -                       |
| Features  | 4x DI<br>DC 24 V<br>NPN |
| <b>Current consumption/power loss</b>                               |                         |
| Current consumption from backplane bus                              | 65 mA                   |
| Power loss  | 0.6 W                   |
| <b>Technical data digital inputs</b>                                |                         |
| Number of inputs  | 4                       |
| Cable length, shielded  | 1000 m                  |
| Cable length, unshielded  | 600 m                   |
| Rated load voltage  | -                       |
| Current consumption from load voltage L+ (without load)             | -                       |
| Rated value   | DC 20.4...28.8 V        |
| Input voltage for signal "0"  | DC 15...28.8 V          |
| Input voltage for signal "1"  | DC 0...5 V              |
| Input voltage hysteresis  | -                       |
| Signal logic input  | Sourcing input          |
| Frequency range   | -                       |
| Input resistance  | -                       |
| Input capacitance   | -                       |
| Input current for signal "1"  | 3 mA                    |
| Connection of Two-Wire-BEROs possible                               | yes                     |
| Max. permissible BERO quiescent current                             | 0.5 mA                  |
| Input delay of "0" to "1"   | 3 ms                    |
| Input delay of "1" to "0"   | 3 ms                    |
| Number of simultaneously utilizable inputs horizontal configuration | 4                       |
| Number of simultaneously utilizable inputs vertical configuration   | 4                       |
| Input characteristic curve  | -                       |
| Initial data size   | 4 Bit                   |
| <b>Status information, alarms, diagnostics</b>                      |                         |
| Status display  | green LED per channel   |
| Interrupts  | no                      |
| Process alarm   | no                      |
| Diagnostic interrupt  | no                      |
| Diagnostic functions  | no                      |
| Diagnostics information read-out                                    | none                    |
| Module state  | green LED               |

|                      |         |
|----------------------|---------|
| Module error display | red LED |
|----------------------|---------|

|                       |      |
|-----------------------|------|
| Channel error display | none |
|-----------------------|------|

## Isolation

|                  |   |
|------------------|---|
| Between channels | - |
|------------------|---|

|                               |   |
|-------------------------------|---|
| Between channels of groups to | - |
|-------------------------------|---|

|                                    |     |
|------------------------------------|-----|
| Between channels and backplane bus | yes |
|------------------------------------|-----|

|                        |          |
|------------------------|----------|
| Insulation tested with | DC 500 V |
|------------------------|----------|

## Safety

|                 |   |
|-----------------|---|
| Safety protocol | - |
|-----------------|---|

|                     |   |
|---------------------|---|
| Safety requirements | - |
|---------------------|---|

|                     |   |
|---------------------|---|
| Secure user address | - |
|---------------------|---|

|          |   |
|----------|---|
| Watchdog | - |
|----------|---|

|              |   |
|--------------|---|
| Two channels | - |
|--------------|---|

|                    |   |
|--------------------|---|
| Test pulse outputs | - |
|--------------------|---|

## Datasizes

|             |   |
|-------------|---|
| Input bytes | 1 |
|-------------|---|

|              |   |
|--------------|---|
| Output bytes | 0 |
|--------------|---|

|                 |   |
|-----------------|---|
| Parameter bytes | 0 |
|-----------------|---|

|                  |   |
|------------------|---|
| Diagnostic bytes | 0 |
|------------------|---|

## Housing

|          |                |
|----------|----------------|
| Material | PPE / PPE GF10 |
|----------|----------------|

|          |                    |
|----------|--------------------|
| Mounting | Profile rail 35 mm |
|----------|--------------------|

## Mechanical data

|                    |                            |
|--------------------|----------------------------|
| Dimensions (WxHxD) | 12.9 mm x 109 mm x 76.5 mm |
|--------------------|----------------------------|

|            |      |
|------------|------|
| Net weight | 58 g |
|------------|------|

|                              |      |
|------------------------------|------|
| Weight including accessories | 58 g |
|------------------------------|------|

|              |      |
|--------------|------|
| Gross weight | 72 g |
|--------------|------|

## Environmental conditions

|                       |               |
|-----------------------|---------------|
| Operating temperature | 0 °C to 60 °C |
|-----------------------|---------------|

|                     |                 |
|---------------------|-----------------|
| Storage temperature | -25 °C to 70 °C |
|---------------------|-----------------|

## Certifications

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

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