

## Data sheet SM 221 (221-1BH50)

### Technical data

|   |   |
|---|---|
| <b>Order no.</b>  | <b>221-1BH50</b>  |
| Type  | SM 221  |
| <b>General information</b>  |   |
| Note  | -   |
| Features  | 16x DI<br>DC 24 V<br>NPN<br>For conversion module UB4x<br>With LED status display |
| <b>Current consumption/power loss</b>                               |   |
| Current consumption from backplane bus                              | 40 mA   |
| Power loss  | 3.5 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 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 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  | -   |
| Initial data size   | 2 Byte  |
| <b>Status information, alarms, diagnostics</b>                      |   |
| Status display  | none  |
| 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 | 16 |
|-------------------------------|----|

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

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

## Datasizes

|             |   |
|-------------|---|
| Input bytes | 2 |
|-------------|---|

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

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

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

## Housing

|          |              |
|----------|--------------|
| Material | PPE / PA 6.6 |
|----------|--------------|

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

## Mechanical data

|                    |                         |
|--------------------|-------------------------|
| Dimensions (WxHxD) | 25.4 mm x 76 mm x 88 mm |
|--------------------|-------------------------|

|            |      |
|------------|------|
| Net weight | 70 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 | - |
|------------------|---|