

SIMATIC S7, Digital input SM 326, 8 DI; 24 V DC, NAMUR, fail-safe NAMUR input for SIMATIC S7 F-systems, up to Category 4 (EN 954-1)/ SIL3 (IEC61508)/PLE (ISO13849), 1x 40-pole



### Supply voltage

|                             |     |
|-----------------------------|-----|
| Reverse polarity protection | Yes |
|-----------------------------|-----|

### Input current

|   |        |
|---|--------|
| from load voltage L+ (without load), max. | 160 mA |
| from backplane bus 5 V DC, max.           | 90 mA  |

### Encoder supply

|                        |          |
|------------------------|----------|
| Number of outputs      | 8        |
| Type of output voltage | 8.2 V DC |

### Power loss

|                  |       |
|------------------|-------|
| Power loss, typ. | 4.5 W |
|------------------|-------|

### Digital inputs

|                          |   |
|--------------------------|---|
| Number of digital inputs | 8 |
|--------------------------|---|

### Number of simultaneously controllable inputs

all mounting positions

|                     |   |
|---------------------|---|
| — up to 40 °C, max. | 8 |
| — up to 60 °C, max. | 8 |

### Input voltage

|  |                      |
|--|----------------------|
| • Type of input voltage  | DC                   |
| <b>Input current</b>   |                      |
| • for signal "0", max. (permissible quiescent current)         | 0.35 to 1.2 mA       |
| • for signal "1", typ.   | 2.1 to 7 mA          |
| <b>Input delay (for rated value of input voltage)</b>          |                      |
| for NAMUR inputs   |                      |
| — at "0" to "1", max.  | 1.2 to 3 ms          |
| — at "1" to "0", max.  | 1.2 to 3 ms          |
| <b>Cable length</b>  |                      |
| • shielded, max.   | 200 m                |
| • unshielded, max.   | 100 m                |
| <b>Interrupts/diagnostics/status information</b>               |                      |
| <b>Alarms</b>  |                      |
| • Diagnostic alarm   | Yes; Parameterizable |
| <b>Diagnostics indication LED</b>                              |                      |
| • Fail-safe operation  | Yes                  |
| • Group error SF (red)   | Yes                  |
| <b>Ex(i) characteristics</b>                                   |                      |
| Module for Ex(i) protection                                    | Yes                  |
| <b>Maximum values of input circuits (per channel)</b>          |                      |
| • Co (permissible external capacity), max.                     | 3 µF                 |
| • Io (short-circuit current), max.                             | 13.9 mA              |
| • Lo (permissible external inductivity), max.                  | 80 mH                |
| • Po (power of load), max.                                     | 33.1 mW              |
| • Uo (output no-load voltage), max.                            | 10 V                 |
| • Um (fault voltage), max.                                     | 60 V DC/30 V AC      |
| • Ta (permissible ambient temperature), max.                   | 60 °C                |
| <b>Potential separation</b>                                    |                      |
| <b>Potential separation digital inputs</b>                     |                      |
| • between the channels   | Yes                  |
| • between the channels and backplane bus                       | Yes                  |
| • between the channels and the power supply of the electronics | Yes                  |
| <b>Isolation</b>   |                      |
| <b>tested with</b>   |                      |
| • Channels against backplane bus and load voltage L+           | 1500 V AC            |
| • Between channels   | 1500 V AC            |
| • Load voltage L+ against backplane bus                        | 500 V DC/350 V AC    |

## Standards, approvals, certificates

### Highest safety class achievable in safety mode

- |                         |   |
|-------------------------|---|
| • acc. to EN 954        | Cat. 4                                      |
| • SIL acc. to IEC 61508 | SIL 2 (single-channel), SIL 3 (two-channel) |

### Use in hazardous areas

- |                    |                |
|--------------------|----------------|
| • Test number KEMA | 99 ATEX 2671 X |
|--------------------|----------------|

## Connection method

|                          |           |
|--------------------------|-----------|
| required front connector | 1x 40-pin |
|--------------------------|-----------|

## Dimensions

|        |        |
|--------|--------|
| Width  | 80 mm  |
| Height | 125 mm |
| Depth  | 120 mm |

## Weights

|                 |       |
|-----------------|-------|
| Weight, approx. | 482 g |
|-----------------|-------|

|                       |            |
|-----------------------|------------|
| <b>last modified:</b> | 12/14/2018 |
|-----------------------|------------|