

\*\*\*Spare part\*\*\* SIMATIC S7-200, Digital I/O EM 223, only for S7-22X CPU, 4 DI/4 DO relay, 5-30 V DC, 250 V AC



### Supply voltage

#### Load voltage L+

|                                       |      |
|---------------------------------------|------|
| • Rated value (DC)                    | 24 V |
| • permissible range, lower limit (DC) | 5 V  |
| • permissible range, upper limit (DC) | 30 V |

#### Load voltage L1

|                                       |                          |
|---------------------------------------|--------------------------|
| • Rated value (AC)                    | 230 V; 24V AC to 230V AC |
| • permissible range, lower limit (AC) | 5 V                      |
| • permissible range, upper limit (AC) | 250 V                    |

### Input current

|                                                                       |                                     |
|-----------------------------------------------------------------------|-------------------------------------|
| from backplane bus 5 V DC, max.                                       | 40 mA                               |
| from sensor current supply or external current supply (24 V DC), max. | 72 mA                               |
| from coil current, max.                                               | 9 mA; for each output on signal "1" |

### Power loss

|                  |     |
|------------------|-----|
| Power loss, typ. | 2 W |
|------------------|-----|

### Digital inputs

|                          |   |
|--------------------------|---|
| Number of digital inputs | 4 |
|--------------------------|---|

|                                                       |                                                                    |
|-------------------------------------------------------|--------------------------------------------------------------------|
| Input voltage                                         |                                                                    |
| • Type of input voltage                               | AC/DC                                                              |
| • Rated value (DC)                                    | 24 V                                                               |
| • for signal "0"                                      | 0 to 5 V                                                           |
| • for signal "1"                                      | 15 V DC to 30 V DC                                                 |
| Input current                                         |                                                                    |
| • for signal "1", typ.                                | 4 mA                                                               |
| Input delay (for rated value of input voltage)        |                                                                    |
| for standard inputs                                   |                                                                    |
| — at "0" to "1", max.                                 | 4.5 ms                                                             |
| Digital outputs                                       |                                                                    |
| Number of digital outputs                             | 4; Relays                                                          |
| Short-circuit protection                              | No                                                                 |
| Output voltage                                        |                                                                    |
| • for signal "0", max.                                | 0.1 V; with 10 kOhm load                                           |
| • for signal "1", min.                                | L+/L1                                                              |
| Output current                                        |                                                                    |
| • for signal "1" rated value                          | 2 000 mA                                                           |
| Total current of the outputs (per group)              |                                                                    |
| all mounting positions                                |                                                                    |
| — Current per conductor/group, max.                   | 8 A                                                                |
| Relay outputs                                         |                                                                    |
| • Number of operating cycles, max.                    | 10 000 000; mechanically 10 million, at rated load voltage 100 000 |
| Switching capacity of contacts                        |                                                                    |
| — with inductive load, max.                           | 0.75 A; each output                                                |
| — on lamp load, max.                                  | 200 W; 30 W with DC, 200 W with AC                                 |
| — with resistive load, max.                           | 0.75 A; each output                                                |
| Cable length                                          |                                                                    |
| • shielded, max.                                      | 500 m                                                              |
| • unshielded, max.                                    | 150 m                                                              |
| Encoder                                               |                                                                    |
| Connectable encoders                                  |                                                                    |
| • 2-wire sensor                                       | Yes                                                                |
| — permissible quiescent current (2-wire sensor), max. | 1 mA                                                               |
| Potential separation                                  |                                                                    |
| Potential separation digital inputs                   |                                                                    |
| • Potential separation digital inputs                 | Yes; Optocoupler                                                   |
| • between the channels, in groups of                  | 4                                                                  |
| Potential separation digital outputs                  |                                                                    |
| • Potential separation digital outputs                | Yes; Relays                                                        |

- between the channels, in groups of

4

#### Isolation

Isolation tested with

500 V AC

#### Connection method

Plug-in I/O terminals

Yes

#### Dimensions

Width

46 mm

Height

80 mm

Depth

62 mm

#### Weights

Weight, approx.

160 g

**last modified:**

07/13/2018