

\*\*\*Spare part\*\*\* SIPLUS S7-1200 SM 1223 8DI/8DO/Relay for medial exposure with conformal coating based on 6ES7223-1PH30-0XB0 . Digital input/output 8 DI/8 DO, 8 DI 24 V DC, Sink/Source, 8 DO, relay 2 A



| General information   |                                    |
|---|------------------------------------|
| Product type designation  | SM 1223, DI 8x24 V DC, DQ 8x relay |
| Supply voltage  |                                    |
| Rated value (DC)  | Yes                                |
| <ul style="list-style-type: none"> <li>24 V DC</li> </ul>                                   |                                    |
| permissible range, lower limit (DC)   | 20.4 V                             |
| permissible range, upper limit (DC)   | 28.8 V                             |
| Input current   |                                    |
| from backplane bus 5 V DC, max.   | 145 mA                             |
| Digital inputs  |                                    |
| <ul style="list-style-type: none"> <li>from load voltage L+ (without load), max.</li> </ul> | 4 mA/input 11 mA/relay             |
| Output voltage  |                                    |
| Power supply to the transmitters  | Yes                                |
| <ul style="list-style-type: none"> <li>present</li> </ul>                                   |                                    |
| Power loss  |                                    |
| Power loss, typ.  | 5.5 W                              |
| Digital inputs  |                                    |

|   |   |
|---|---|
| Number of digital inputs  | 8   |
| • in groups of  | 2   |
| Input characteristic curve in accordance with IEC 61131, type 1 | Yes   |
| <b>Number of simultaneously controllable inputs</b>             |   |
| all mounting positions  |   |
| — up to 40 °C, max.   | 8   |
| horizontal installation   |   |
| — up to 40 °C, max.   | 8   |
| — up to 50 °C, max.   | 8   |
| vertical installation   |   |
| — up to 40 °C, max.   | 8   |
| <b>Input voltage</b>  |   |
| • Type of input voltage   | DC  |
| • Rated value (DC)  | 24 V  |
| • for signal "0"  | 5 V DC at 1 mA  |
| • for signal "1"  | 15 V DC at 2.5 mA   |
| <b>Input current</b>  |   |
| • for signal "0", max. (permissible quiescent current)          | 1 mA  |
| • for signal "1", min.  | 2.5 mA  |
| • for signal "1", typ.  | 4 mA  |
| <b>Input delay (for rated value of input voltage)</b>           |   |
| for standard inputs   |   |
| — parameterizable   | Yes; 0.2 ms, 0.4 ms, 0.8 ms, 1.6 ms, 3.2 ms, 6.4 ms and 12.8 ms, selectable in groups of four |
| for interrupt inputs  |   |
| — parameterizable   | Yes   |
| <b>Cable length</b>   |   |
| • shielded, max.  | 500 m   |
| • unshielded, max.  | 300 m   |
| <b>Digital outputs</b>  |   |
| Number of digital outputs                                       | 8   |
| • in groups of  | 2   |
| Short-circuit protection  | No; to be provided externally   |
| <b>Switching capacity of the outputs</b>                        |   |
| • with resistive load, max.                                     | 2 A   |
| • on lamp load, max.  | 30 W with DC, 200 W with AC   |
| <b>Output voltage</b>   |   |
| • Rated value (DC)  | 5 to 30 V AC  |
| • Rated value (AC)  | 5 V AC to 250 V AC  |
| <b>Output current</b>   |   |

|  |  |
|--|--|
| • for signal "1" permissible range, max.         | 2 A  |
| <b>Output delay with resistive load</b>          |  |
| • "0" to "1", max.                               | 10 ms  |
| • "1" to "0", max.                               | 10 ms  |
| <b>Total current of the outputs (per group)</b>  |  |
| horizontal installation                          |  |
| — up to 50 °C, max.                              | 10 A; Current per mass                                 |
| <b>Relay outputs</b>                             |  |
| • Number of relay outputs                        | 8  |
| • Rated supply voltage of relay coil L+ (DC)     | 24 V   |
| • Number of operating cycles, max.               | mechanically 10 million, at rated load voltage 100 000 |
| <b>Switching capacity of contacts</b>            |  |
| — with inductive load, max.                      | 2 A  |
| — on lamp load, max.                             | 30 W with DC, 200 W with AC                            |
| — with resistive load, max.                      | 2 A  |
| <b>Cable length</b>                              |  |
| • shielded, max.                                 | 500 m  |
| • unshielded, max.                               | 150 m  |
| <b>Interrupts/diagnostics/status information</b> |  |
| Alarms   | Yes  |
| Diagnostic functions                             | Yes  |
| <b>Alarms</b>                                    |  |
| • Diagnostic alarm                               | Yes  |
| <b>Diagnostics indication LED</b>                |  |
| • for status of the inputs                       | Yes  |
| • for status of the outputs                      | Yes  |
| • for maintenance                                | Yes  |
| <b>Potential separation</b>                      |  |
| <b>Potential separation digital inputs</b>       |  |
| • between the channels, in groups of             | 2  |
| <b>Potential separation digital outputs</b>      |  |
| • between the channels                           | Relays   |
| • between the channels, in groups of             | 2  |
| • between the channels and backplane bus         | 1500 V AC for 1 minute                                 |
| <b>Permissible potential difference</b>          |  |
| between different circuits                       | 750 V AC for 1 minute                                  |
| <b>Degree and class of protection</b>            |  |
| Degree of protection acc. to EN 60529            |  |
| • IP20   | Yes  |
| <b>Standards, approvals, certificates</b>        |  |

|             |     |
|-------------|-----|
| CE mark     | Yes |
| cULus       | Yes |
| FM approval | Yes |

### Ambient conditions

#### Free fall

- Fall height, max. 0.3 m; five times, in product package

#### Ambient temperature during operation

- min. 0 °C; = Tmin
- max. 55 °C; = Tmax
- permissible temperature change 5°C to 55°C, 3°C / minute

#### Ambient temperature during storage/transportation

- min. -40 °C
- max. 70 °C

#### Altitude during operation relating to sea level

- Ambient air temperature-barometric pressure-altitude Tmin ... Tmax at 1 080 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax - 20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)

#### Relative humidity

- With condensation, tested in accordance with IEC 60068-2-38, max. 100 %; RH incl. condensation/frost permitted (no commissioning in bedewed state)

#### Resistance

##### Use in stationary industrial systems

- to biologically active substances according to EN 60721-3-3 Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
- to chemically active substances according to EN 60721-3-3 Yes; Class 3C4 incl. salt spray according to EN 60068-2-52 (degree of severity 3). The supplied connector covers must remain on the unused interfaces during operation!
- to mechanically active substances according to EN 60721-3-3 Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!

### Connection method

|                          |     |
|--------------------------|-----|
| required front connector | Yes |
|--------------------------|-----|

### Mechanics/material

|                            |     |
|----------------------------|-----|
| Enclosure material (front) |     |
| • Plastic                  | Yes |

### Dimensions

|        |        |
|--------|--------|
| Width  | 45 mm  |
| Height | 100 mm |
| Depth  | 75 mm  |

### Weights

|                 |       |
|-----------------|-------|
| Weight, approx. | 230 g |
|-----------------|-------|

last modified:

05/18/2018