### Supply voltage

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated value (DC)</td>
<td>24 V DC</td>
</tr>
<tr>
<td>permissive range, lower limit (DC)</td>
<td>20.4 V</td>
</tr>
<tr>
<td>permissive range, upper limit (DC)</td>
<td>28.8 V</td>
</tr>
<tr>
<td>Input current from backplane bus 5 V DC, max.</td>
<td>145 mA</td>
</tr>
</tbody>
</table>

### Digital inputs

- from load voltage L+ (without load), max.: 4 mA/input 11 mA/relay

### Output voltage

- Power supply to the transmitters: present

### Power loss

- Power loss, typ.: 5.5 W

### Digital inputs

- Number of digital inputs: 8
  - in groups of: 2

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**SIMATIC S7-1200, DIGITAL I/O SM 1223, 8DI / 8DO, 8DI DC 24 V, SINK/SOURCE, 8DO, RELAY 2A**
### Input characteristic curve in accordance with IEC 61131, type 1

| Yes |  |

### Number of simultaneously controllable inputs

<table>
<thead>
<tr>
<th>All mounting positions</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>up to 40 °C, max.</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Horizontal installation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>up to 40 °C, max.</td>
<td>8</td>
</tr>
<tr>
<td>up to 50 °C, max.</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vertical installation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>up to 40 °C, max.</td>
<td>8</td>
</tr>
</tbody>
</table>

### Input voltage

- **Type of input voltage**: DC
- **Rated value (DC)**
  - for signal "0": 5 V DC at 1 mA
  - for signal "1": 15 VDC at 2.5 mA

### Input current

- for signal "0", max. (permissible quiescent current): 1 mA
- for signal "1", min.: 2.5 mA
- for signal "1", typ.: 4 mA

### Input delay (for rated value of input voltage)

- 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

### Cable length

- shielded, max.: 500 m
- unshielded, max.: 300 m

### Digital outputs

<table>
<thead>
<tr>
<th>Number of digital outputs</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>in groups of</td>
<td>2</td>
</tr>
</tbody>
</table>

### Short-circuit protection

| No; to be provided externally |  |

### Switching capacity of the outputs

- with resistive load, max.: 2 A
- on lamp load, max.: 30 W with DC, 200 W with AC

### Output voltage

- Rated value (DC): 5V DC to 30V DC
- Rated value (AC): 5 V AC to 250 V AC

### Output current

- for signal "1" permissible range, max.: 2 A

### Output delay with resistive load

|  |

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**6ES7223-1PH32-0XB0**

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25.01.2016

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### Total current of the outputs (per group)
- Horizontal installation:
  - up to 50 °C, max.: 10 A; Current per mass

### Relay outputs
- 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

### Switching capacity of contacts
- With inductive load, max.: 2 A
- On lamp load, max.: 30 W with DC, 200 W with AC
- With resistive load, max.: 2 A

### Cable length
- Shielded, max.: 500 m
- Unshielded, max.: 150 m

### Interrupts/diagnostics/status information
- Alarms: Yes
- Diagnostic functions: Yes
- Alarms:
  - Diagnostic alarm: Yes
- Diagnostic messages:
  - Monitoring the supply voltage: Yes
- Diagnostics indication LED:
  - For status of the inputs: Yes
  - For status of the outputs: Yes
  - For maintenance: Yes
  - Status indicator digital output (green): Yes
  - Status indicator digital input (green): Yes

### Potential separation
- Potential separation digital inputs:
  - Between the channels, in groups of: 2
- Potential separation digital outputs:
  - Between the channels: Relays
  - Between the channels, in groups of: 2
  - Between the channels and backplane bus: 1500 V AC for 1 minute

### Permissible potential difference
- Between different circuits: 750 V AC for 1 minute

### Degree and class of protection
- Degree of protection acc. to EN 60529: 6ES7223-1PH32-0XB0
### Standards, approvals, certificates

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP20</td>
<td>Yes</td>
</tr>
<tr>
<td>CE mark</td>
<td>Yes</td>
</tr>
<tr>
<td>CSA approval</td>
<td>Yes</td>
</tr>
<tr>
<td>UL approval</td>
<td>Yes</td>
</tr>
<tr>
<td>cULus</td>
<td>Yes</td>
</tr>
<tr>
<td>FM approval</td>
<td>Yes</td>
</tr>
<tr>
<td>RCM (formerly C-TICK)</td>
<td>Yes</td>
</tr>
<tr>
<td>Marine approval</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### Ambient conditions

**Free fall**
- Fall height, max.: 0.3 m; five times, in dispatch package

**Ambient temperature during operation**
- Permissible temperature range:
  - Min.: -20 °C
  - Max.: 60 °C
- Permissible temperature change: 5°C to 55°C, 3°C / minute

**Ambient temperature during storage/transportation**
- Min.: -40 °C
- Max.: 70 °C

**Air pressure acc. to IEC 60068-2-13**
- Storage/transport, min.: 660 hPa
- Storage/transport, max.: 1 080 hPa

**Relative humidity**
- Permissible range (without condensation) at 25 °C: 95%

**Connection method**
- Required front connector: Yes

**Mechanics/material**
- Enclosure material (front): Plastic
- Yes

### Dimensions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width</td>
<td>45 mm</td>
</tr>
<tr>
<td>Height</td>
<td>100 mm</td>
</tr>
<tr>
<td>Depth</td>
<td>75 mm</td>
</tr>
</tbody>
</table>

### Weights

<table>
<thead>
<tr>
<th>Weight, approx.</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>230 g</td>
</tr>
</tbody>
</table>

**Last modified:** 22.01.2016