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## Data sheet 6ES7223-3BD30-0XB0

SIMATIC S7-1200, Digital I/O SB 1223, 2 DI/2 DQ, 24 V DC 200 kHz



Figure similar

| | |
|---|---|
| **General information** | |
| Product type designation | SB 1223, DI 2x24 V DC/DQ 2x24 V DC 200 kHz |
| **Input current** | |
| from backplane bus 5 V DC, typ. | 35 mA |
| **Power loss** | |
| Power loss, typ. | 0.5 W |
| **Digital inputs** | |
| Number of digital inputs | 2; Current-sourcing |
| ● in groups of | 2 |
| Number of simultaneously controllable inputs | |
| all mounting positions | |
| — up to 40 °C, max. | 2 |
| Input voltage | |
| ● Rated value (DC) | 24 V |
| ● for signal "0" | (L+ minus 5.0 V DC) ... L+ |
| ● for signal "1" | 0 V ... (L+ minus 10 V DC) |
| Input current | |
| ● for signal "0", max. (permissible quiescent current) | 1.4 mA |
| ● for signal "1", min. | 2.9 mA |
| ● for signal "1", typ. | 7 mA |
| Input delay (for rated value of input voltage) | |
| for standard inputs | |
| — parameterizable | Yes; 0.1 / 0.2 / 0.4 / 0.8 / 1.6 / 3.2 / 6.4 / 10.0 / 12.8 / 20.0 µs; 0.05 / 0.1 / 0.2 / 0.4 / 0.8 / 1.6 / 3.2 / 6.4 / 10.0 / 12.8 / 20.0 ms |
| for interrupt inputs | |
| — Parameterizable | Yes |
| for technological functions | |
| — Parameterizable | Yes |
| Cable length | |
| ● shielded, max. | 50 m; shielded, twisted pair |
| **Digital outputs** | |
| Number of digital outputs | 2; MOSFET, solid-state (current-sinking/current-sourcing) |
| ● in groups of | 2 |
| Short-circuit protection | No |
| Switching capacity of the outputs | |
| ● with resistive load, max. | 0.1 A |
| Output voltage | |
| ● Rated value (DC) | 24 V |


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| | |
|---|---|
| ● for signal "0", max. | 1 V |
| ● for signal "1", min. | L+ (-1.5 V) |
| Output current | |
| ● for signal "1" rated value | 0.1 A |
| ● for signal "1" permissible range, max. | 0.1 A |
| Cable length | |
| ● shielded, max. | 50 m |
| **Interrupts/diagnostics/status information** | |
| Diagnostics indication LED | |
| ● for status of the inputs | Yes |
| ● for status of the outputs | Yes |
| **Standards, approvals, certificates** | |
| CE mark | Yes |
| CSA approval | Yes |
| UL approval | Yes |
| cULus | Yes |
| FM approval | Yes |
| RCM (formerly C-TICK) | Yes |
| KC approval | Yes |
| Marine approval | Yes |
| **Ambient conditions** | |
| Free fall | |
| ● Fall height, max. | 0.3 m; five times, in product package |
| Ambient temperature during operation | |
| ● min. | -20 °C |
| ● max. | 60 °C |
| ● horizontal installation, min. | -20 °C |
| ● horizontal installation, max. | 60 °C |
| ● vertical installation, min. | -20 °C |
| ● vertical installation, max. | 50 °C |
| 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 | |
| ● Operation at 25 °C without condensation, max. | 95 % |
| **Mechanics/material** | |
| Enclosure material (front) | |
| ● Plastic | Yes |
| **Dimensions** | |
| Width | 38 mm |
| Height | 62 mm |
| Depth | 21 mm |
| **Weights** | |
| Weight, approx. | 35 g |

**Classifications**

| | Version | Classification |
|---|---|---|
| eClass | 16 | 27-24-22-04 |
| eClass | 14 | 27-24-22-04 |
| eClass | 12 | 27-24-22-04 |
| eClass | 9.1 | 27-24-22-04 |
| eClass | 9 | 27-24-22-04 |
| eClass | 8 | 27-24-22-04 |
| eClass | 7.1 | 27-24-22-04 |
| eClass | 6 | 27-24-22-04 |


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| | | |
|---|---|---|
| ETIM | 10 | EC001419 |
| ETIM | 9 | EC001419 |
| ETIM | 8 | EC001419 |
| ETIM | 7 | EC001419 |
| IDEA | 4 | 3566 |
| UNSPSC | 15 | 32-15-17-05 |

## Approvals / Certificates

### General Product Approval






Miscellaneous

Manufacturer Declaration







### General Product Approval



Manufacturer Declaration

China RoHS

### EMV




### For use in hazardous locations







### For use in hazardous locations

FM




Miscellaneous

CCC-Ex

### Maritime application







### Maritime application




NK / Nippon Kaiji Kyokai










CCS (China Classification Society)

### Maritime application

KR (Korean Register of Shipping)

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