



Figure similar

SIMATIC S7-1200, Digital I/O SB 1223, 2 DI/2 DO, 5V DC 200kHz

| General information                                    |  |
|--|--|
| Product type designation                               | SB 1223, DI 2x5 V DC/DO 2x5 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  |
| Input voltage  |  |
| • Rated value (DC)                                     | 5 V  |
| • for signal "0"                                       | (L+ minus 1.0 V DC) ... L+   |
| • for signal "1"                                       | 0 V ... (L+ minus 2.0 V DC)  |
| Input current  |  |
| • for signal "0", max. (permissible quiescent current) | 2.2 mA   |
| • for signal "1", min.                                 | 5.1 mA   |
| • for signal "1", typ.                                 | 15 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  |
| Load resistance range                                  |  |
| • upper limit  | 7 Ω  |
| Output voltage   |  |
| • Rated value (DC)                                     | 5 V  |
| • for signal "0", max.                                 | 0.2 V  |
| • for signal "1", min.                                 | L+ minus 0.7 V DC  |

|  |                                       |
|--|---------------------------------------|
| • for signal "1", max.                                   | 6 V                                   |
| <b>Output current</b>                                    |                                       |
| • for signal "1" rated value                             | 0.1 A                                 |
| • for signal "1" permissible range, max.                 | 0.1 A                                 |
| <b>Cable length</b>                                      |                                       |
| • shielded, max.   | 50 m                                  |
| <b>Interrupts/diagnostics/status information</b>         |                                       |
| <b>Diagnostics indication LED</b>                        |                                       |
| • for status of the inputs                               | Yes                                   |
| • for status of the outputs                              | Yes                                   |
| <b>Standards, approvals, certificates</b>                |                                       |
| 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                                   |
| <b>Ambient conditions</b>                                |                                       |
| <b>Free fall</b>   |                                       |
| • Fall height, max.                                      | 0.3 m; five times, in product package |
| <b>Ambient temperature during operation</b>              |                                       |
| • 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                                 |
| <b>Ambient temperature during storage/transportation</b> |                                       |
| • min.   | -40 °C                                |
| • max.   | 70 °C                                 |
| <b>Air pressure acc. to IEC 60068-2-13</b>               |                                       |
| • Storage/transport, min.                                | 660 hPa                               |
| • Storage/transport, max.                                | 1 080 hPa                             |
| <b>Relative humidity</b>                                 |                                       |
| • Operation at 25 °C without condensation, max.          | 95 %                                  |
| <b>Mechanics/material</b>                                |                                       |
| <b>Enclosure material (front)</b>                        |                                       |
| • Plastic  | Yes                                   |
| <b>Dimensions</b>  |                                       |
| Width  | 38 mm                                 |
| Height   | 62 mm                                 |
| Depth  | 21 mm                                 |
| <b>Weights</b>   |                                       |
| Weight, approx.  | 35 g                                  |

last modified: 3/12/2024 