



Figure similar

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

| General information                                    |  |
|--|--|
| Product type designation                               | SB 1223, DI 2x5 V DC/DQ 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  |  |
| • Type of input voltage                                | DC   |
| • 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  |

|  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• for signal "0", max.</li> <li>• for signal "1", min.</li> <li>• for signal "1", max.</li> </ul>   | 0.2 V<br>L+ minus 0.7 V DC<br>6 V                     |
| <b>Output current</b>  |   |
| <ul style="list-style-type: none"> <li>• for signal "1" permissible range, max.</li> </ul>   | 0.1 A   |
| <b>Cable length</b>  |   |
| <ul style="list-style-type: none"> <li>• shielded, max.</li> </ul>   | 50 m  |
| <b>Interrupts/diagnostics/status information</b>   |   |
| <b>Diagnostics indication LED</b>  |   |
| <ul style="list-style-type: none"> <li>• for status of the inputs</li> <li>• for status of the outputs</li> </ul>  | Yes<br>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>   |   |
| <ul style="list-style-type: none"> <li>• Fall height, max.</li> </ul>  | 0.3 m; five times, in product package                 |
| <b>Ambient temperature during operation</b>  |   |
| <ul style="list-style-type: none"> <li>• min.</li> <li>• max.</li> <li>• horizontal installation, min.</li> <li>• horizontal installation, max.</li> <li>• vertical installation, min.</li> <li>• vertical installation, max.</li> </ul> | -20 °C<br>60 °C<br>-20 °C<br>60 °C<br>-20 °C<br>50 °C |
| <b>Ambient temperature during storage/transportation</b>   |   |
| <ul style="list-style-type: none"> <li>• min.</li> <li>• max.</li> </ul>   | -40 °C<br>70 °C                                       |
| <b>Air pressure acc. to IEC 60068-2-13</b>   |   |
| <ul style="list-style-type: none"> <li>• Storage/transport, min.</li> <li>• Storage/transport, max.</li> </ul>   | 660 hPa<br>1 080 hPa                                  |
| <b>Relative humidity</b>   |   |
| <ul style="list-style-type: none"> <li>• Operation at 25 °C without condensation, max.</li> </ul>  | 95 %  |
| <b>Mechanics/material</b>  |   |
| Enclosure material (front) <ul style="list-style-type: none"> <li>• Plastic</li> </ul>   | Yes   |
| <b>Dimensions</b>  |   |
| Width  | 38 mm   |
| Height   | 62 mm   |
| Depth  | 21 mm   |
| <b>Weights</b>   |   |
| Weight, approx.  | 35 g  |

**last modified:** 9/16/2021 