SIEMENS

Data sheet

6ES7221-1BH32-0XB0



SIMATIC S7-1200, Digital input SM 1221, 16 DI, 24 V DC, Sink/Source

| General information | |
|--|---|
| Product type designation | SM 1221, DI 16x24 V DC |
| Supply voltage | |
| Rated value (DC) | 24 V |
| permissible range, lower limit (DC) | 20.4 ∨ |
| permissible range, upper limit (DC) | 28.8 V |
| Input current | |
| from backplane bus 5 V DC, max. | 130 mA |
| Digital inputs | |
| from load voltage L+ (without load), max. | 4 mA; per channel |
| output voltage / header | |
| supply voltage of the transmitters / header | |
| • present | Yes |
| Power loss | |
| Power loss, typ. | 2.5 W |
| Digital inputs | |
| Number of digital inputs | 16 |
| • in groups of | 4 |
| Input characteristic curve in accordance with IEC 61131, type 1 | Yes |
| Number of simultaneously controllable inputs | |
| all mounting positions | |
| — up to 40 °C, max. | 16 |
| horizontal installation | |
| — up to 40 °C, max. | 16 |
| — up to 50 °C, max. | 16 |
| vertical installation | |
| — up to 40 °C, max. | 16 |
| Input voltage | |
| Rated value (DC) | 24 V |
| • for signal "0" | 5 V DC at 1 mA |
| ● for signal "1" | 15 V DC 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 | |

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| Free fail 0.3 m; five times, in product package Ambient temperature during operation -20 °C • min. -20 °C • max. 60 °C • permissible temperature change 5°C to 55°C, 3°C / minute Ambient temperature during storage/transportation -40 °C • min. -40 °C • max. 70 °C Air pressure acc. to IEC 60068-2-13 -600 °C • Storage/transport, min. 660 hPa • Storage/transport, max. 1 080 hPa Relative humidity 95 % connection method required front connector required front connector Yes Mechanics/material Enclosure material (front) • Plastic Yes Dimensions Yes Width 45 mm Height 100 mm Depth 75 mm Weight, aprox. 210 g | | -0.434 kg | |
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