

Siemens
EcoTech



SIMATIC S7-1200 G2: SB 1222 digital output, 8 DO 100 kHz; outputs: 8x DQ 24 V DC 0.1 A sinking/sourcing transistor, 100 kHz



Figure similar

| General information | |
|--|---|
| Product type designation | SB 1222, DQ 8x 24 V DC 100 kHz |
| Engineering with | |
| <ul style="list-style-type: none"> STEP 7 TIA Portal configurable/integrated from version | V20 or higher |
| Supply voltage | |
| Rated value (DC) | 24 V |
| permissible range, lower limit (DC) | 20.4 V |
| permissible range, upper limit (DC) | 28.8 V |
| Input current | |
| from backplane bus 5 V DC, typ. | 30 mA |
| Digital outputs | |
| <ul style="list-style-type: none"> from load voltage L+, max. | 15 mA |
| Power loss | |
| Power loss, typ. | 1 W |
| Digital outputs | |
| Number of digital outputs | 8 |
| <ul style="list-style-type: none"> in groups of | 8 |
| Short-circuit protection | Yes |
| Switching capacity of the outputs | |
| <ul style="list-style-type: none"> with resistive load, max. | 0.1 A |
| Output voltage | |
| <ul style="list-style-type: none"> Rated value (DC) for signal "0", max. for signal "1", min. | 24 V 1 V L+ (-1.5 V) |
| Output current | |
| <ul style="list-style-type: none"> for signal "1" rated value | 0.1 A |
| Output delay with resistive load | |
| <ul style="list-style-type: none"> "0" to "1", max. "1" to "0", max. | 1.8 μs 1.8 μs |
| Total current of the outputs (per group) | |
| horizontal installation | |
| — up to 50 °C, max. | 0.4 A |
| Cable length | |
| <ul style="list-style-type: none"> shielded, max. unshielded, max. | 500 m; 500 m shielded, 50 m shielded for PTO outputs 150 m |

| Interrupts/diagnostics/status information | |
|--|--|
| Diagnostics function | Yes |
| Alarms | |
| • Diagnostic alarm | Yes |
| Diagnoses | |
| • Monitoring the supply voltage | Yes |
| Diagnostics indication LED | |
| • DIAG LED | Yes |
| • for status of the outputs | Yes |
| Potential separation | |
| Potential separation digital outputs | |
| • between the channels | No |
| • between the channels, in groups of | 8 |
| • Number of potential groups | 1 |
| • between the channels and backplane bus | Yes; 707 V DC (type test) |
| Degree and class of protection | |
| IP degree of protection | IP20 |
| Standards, approvals, certificates | |
| Siemens Eco Profile (SEP) | Siemens EcoTech |
| CE mark | Yes |
| CSA approval | No |
| UL approval | Yes |
| cULus | Yes |
| FM approval | No |
| RCM (formerly C-TICK) | Yes |
| KC approval | Yes |
| Marine approval | No |
| Ecological footprint | |
| • environmental product declaration | Yes; type 2 acc. to ISO 14021 |
| Global warming potential | |
| — global warming potential, (total) [CO2 eq] | 9.53 kg |
| — global warming potential, (during production) [CO2 eq] | 3.86 kg |
| — global warming potential, (during operation) [CO2 eq] | 5.74 kg |
| — global warming potential, (after end of life cycle) [CO2 eq] | -0.086 kg |
| Ambient conditions | |
| Free fall | |
| • Fall height, max. | 0.3 m; five times, in product package |
| Ambient temperature during operation | |
| • min. | -20 °C |
| • max. | 40 °C; at max. voltages and max. specifications |
| • horizontal installation, min. | -20 °C |
| • horizontal installation, max. | 60 °C; at rated voltages, 50 % of max. specification and alternate IO active |
| • vertical installation, min. | -20 °C |
| • vertical installation, max. | 50 °C; at rated voltages, 50 % of max. specification and alternate IO active |
| Ambient temperature during storage/transportation | |
| • min. | -40 °C |
| • max. | 70 °C |
| Air pressure acc. to IEC 60068-2-13 | |
| • Operation, min. | 540 hPa |
| • Operation, max. | 1 140 hPa |
| • Storage/transport, min. | 540 hPa |
| • Storage/transport, max. | 1 140 hPa |
| Altitude during operation relating to sea level | |
| • Installation altitude, min. | -1 000 m |
| • Installation altitude, max. | 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual |
| Relative humidity | |

| | |
|---|---|
| • Operation at 25 °C without condensation, max. | 95 % |
| Vibrations | |
| • Vibration resistance during operation acc. to IEC 60068-2-6 | 3.5 mm from 5 - 8.4 Hz, 1g from 8.4 - 150 Hz |
| • Operation, tested according to IEC 60068-2-6 | Yes |
| Shock testing | |
| • tested according to IEC 60068-2-27 | Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms |
| Pollutant concentrations | |
| • SO2 at RH < 60% without condensation | SO2: < 0.5 ppm; H2S: < 0.1 ppm; RH < 60 % condensation-free |
| Mechanics/material | |
| Enclosure material (front) | |
| • Plastic | Yes |
| Dimensions | |
| Width | 15 mm |
| Height | 62 mm |
| Depth | 63 mm |
| Weights | |
| Weight, approx. | 29 g |
| Classifications | |

| | Version | Classification |
|--------|---------|----------------|
| 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 |
| ETIM | 10 | EC001419 |
| ETIM | 9 | EC001419 |
| ETIM | 8 | EC001419 |
| ETIM | 7 | EC001419 |

Approvals / Certificates

General Product Approval



EMV **For use in hazardous locations** **Test Certificates**



Maritime application **Environment**



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