



Figure similar

SIMATIC S7-1200, Digital output SM 1222, 16 DO, relay 2 A

| General information | |
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| Product type designation | SM 1222, DQ 16x relay/2 A |
| Supply voltage | |
| permissible range, lower limit (DC) | 20.4 V |
| permissible range, upper limit (DC) | 28.8 V |
| Input current | |
| from backplane bus 5 V DC, max. | 135 mA |
| Digital outputs | |
| <ul style="list-style-type: none"> from load voltage L+, max. | 11 mA/relay coil |
| Power loss | |
| Power loss, typ. | 8.5 W |
| Digital outputs | |
| Number of digital outputs | 16 |
| <ul style="list-style-type: none"> in groups of | 1 |
| Short-circuit protection | No; to be provided externally |
| Switching capacity of the outputs | |
| <ul style="list-style-type: none"> with resistive load, max. | 2 A |
| <ul style="list-style-type: none"> on lamp load, max. | 30 W with DC, 200 W with AC |
| Output voltage | |
| <ul style="list-style-type: none"> Rated value (DC) | 5 V DC to 30 V DC |
| <ul style="list-style-type: none"> Rated value (AC) | 5 V AC to 250 V AC |
| Output current | |
| <ul style="list-style-type: none"> for signal "1" rated value | 2 A |
| Output delay with resistive load | |
| <ul style="list-style-type: none"> "0" to "1", max. | 10 ms |
| <ul style="list-style-type: none"> "1" to "0", max. | 10 ms |
| Total current of the outputs (per group) | |
| horizontal installation | |
| — up to 50 °C, max. | 10 A; Current per mass |
| Relay outputs | |
| <ul style="list-style-type: none"> Number of relay outputs | 16 |
| <ul style="list-style-type: none"> Rated supply voltage of relay coil L+ (DC) | 24 V |
| <ul style="list-style-type: none"> Number of operating cycles, max. | mechanically 10 million, at rated load voltage 100 000 |
| Switching capacity of contacts | |
| — with inductive load, max. | 2 A |
| — on lamp load, max. | 30 W with DC, 200 W with AC |
| — with resistive load, max. | 2 A |
| Cable length | |
| <ul style="list-style-type: none"> shielded, max. | 500 m |

| | |
|--|---|
| • unshielded, max. | 150 m |
| Interrupts/diagnostics/status information | |
| Alarms | |
| • Diagnostic alarm | Yes |
| Diagnostics indication LED | |
| • for status of the outputs | Yes |
| Potential separation | |
| Potential separation digital outputs | |
| • between the channels | Relays |
| • between the channels, in groups of | 4 |
| • between the channels and backplane bus | 1 500 V AC for 1 minute |
| Permissible potential difference | |
| between different circuits | 750 V AC for 1 minute |
| Degree and class of protection | |
| IP degree of protection | IP20 |
| 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; Number of simultaneously activated outputs: 8 (no adjacent points) at 60 °C horizontal or 50 °C vertical, 16 at 55 °C horizontal or 45 °C vertical |
| • horizontal installation, min. | -20 °C |
| • horizontal installation, max. | 60 °C |
| • vertical installation, min. | -20 °C |
| • vertical installation, max. | 50 °C |
| • permissible temperature change | 5°C to 55°C, 3°C / minute |
| 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 % |
| connection method | |
| required front connector | Yes |
| Mechanics/material | |
| Enclosure material (front) | |
| • Plastic | Yes |
| Dimensions | |
| Width | 45 mm |
| Height | 100 mm |
| Depth | 75 mm |
| Weights | |
| Weight, approx. | 260 g |

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