



SIMATIC S7-1200, Digital output SM 1222, 16 DO, 24 V DC, sourcing (Sinking Output), NPN transistor 0.5 A

| General information | |
|---|------------------------------------|
| Product type designation | SM 1222, DO 16x 24 V DC/0.5 A Sink |
| 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. | 140 mA |
| Power loss | |
| Power loss, typ. | 2.5 W |
| Digital outputs | |
| Number of digital outputs | 16 |
| • in groups of | 1 |
| Current-sinking | Yes |
| Short-circuit protection | No; to be provided externally |
| Limitation of inductive shutdown voltage to | Typ 45 V |
| Switching capacity of the outputs | |
| • with resistive load, max. | 0.5 A |
| • on lamp load, max. | 5 W |
| Output voltage | |
| • Rated value (DC) | 24 V |
| • for signal "0", max. | L+ minus 0.75 V DC with 10k Load |
| • for signal "1", min. | 0,5 V |
| Output current | |
| • for signal "1" rated value | 0.5 A |
| • for signal "0" residual current, max. | 75 µA |
| Output delay with resistive load | |
| • "0" to "1", max. | 20 µs |
| • "1" to "0", max. | 350 µs |
| Total current of the outputs (per group) | |
| horizontal installation | |
| — up to 50 °C, max. | 8 A; Current per mass |
| Cable length | |
| • 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 | |
| <ul style="list-style-type: none"> • between the channels, in groups of • between the channels and backplane bus | <p>1 500 V AC</p> |
| 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 | |
| Ambient temperature during operation | |
| <ul style="list-style-type: none"> • min. • max. • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. • permissible temperature change | <p>-20 °C 60 °C -20 °C 60 °C -20 °C 50 °C 5°C to 55°C, 3°C / minute</p> |
| Ambient temperature during storage/transportation | |
| <ul style="list-style-type: none"> • min. • max. | <p>-40 °C 70 °C</p> |
| Air pressure acc. to IEC 60068-2-13 | |
| <ul style="list-style-type: none"> • Storage/transport, min. • Storage/transport, max. | <p>660 hPa 1 080 hPa</p> |
| Relative humidity | |
| <ul style="list-style-type: none"> • Operation at 25 °C without condensation, max. | 95 % |
| connection method | |
| required front connector | Yes |
| Mechanics/material | |
| Enclosure material (front) <ul style="list-style-type: none"> • Plastic | Yes |
| Dimensions | |
| Width | 45 mm |
| Height | 100 mm |
| Depth | 75 mm |
| Weights | |
| Weight, approx. | 220 g |

last modified: 8/23/2023 