




Figure similar

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

| General information   |  |
|---|--|
| 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"> <li>from load voltage L+, max.</li> </ul>  | 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"> <li>in groups of</li> </ul>  | 1  |
| Short-circuit protection  | No; to be provided externally  |
| Switching capacity of the outputs   |  |
| <ul style="list-style-type: none"> <li>with resistive load, max.</li> <li>on lamp load, max.</li> </ul>   | 2 A<br>30 W with DC, 200 W with AC                                   |
| Output voltage  |  |
| <ul style="list-style-type: none"> <li>Rated value (DC)</li> <li>Rated value (AC)</li> </ul>  | 5 V DC to 30 V DC<br>5 V AC to 250 V AC                              |
| Output current  |  |
| <ul style="list-style-type: none"> <li>for signal "1" rated value</li> </ul>  | 2 A  |
| Output delay with resistive load  |  |
| <ul style="list-style-type: none"> <li>"0" to "1", max.</li> <li>"1" to "0", max.</li> </ul>  | 10 ms<br>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"> <li>Number of relay outputs</li> <li>Rated supply voltage of relay coil L+ (DC)</li> <li>Number of operating cycles, max.</li> </ul> | 16<br>24 V<br>mechanically 10 million, at rated load voltage 100 000 |
| Switching capacity of contacts  |  |
| <ul style="list-style-type: none"> <li>with inductive load, max.</li> <li>on lamp load, max.</li> <li>with resistive load, max.</li> </ul>                              | 2 A<br>30 W with DC, 200 W with AC<br>2 A                            |
| Cable length  |  |

|   |   |
|---|---|
| <ul style="list-style-type: none"> <li>shielded, max.</li> </ul>                                | 500 m   |
| <ul style="list-style-type: none"> <li>unshielded, max.</li> </ul>                              | 150 m   |
| <b>Interrupts/diagnostics/status information</b>  |   |
| <b>Alarms</b>   |   |
| <ul style="list-style-type: none"> <li>Diagnostic alarm</li> </ul>                              | Yes   |
| <b>Diagnostics indication LED</b>   |   |
| <ul style="list-style-type: none"> <li>for status of the outputs</li> </ul>                     | Yes   |
| <b>Potential separation</b>   |   |
| <b>Potential separation digital outputs</b>   |   |
| <ul style="list-style-type: none"> <li>between the channels</li> </ul>                          | Relays  |
| <ul style="list-style-type: none"> <li>between the channels, in groups of</li> </ul>            | 4   |
| <ul style="list-style-type: none"> <li>between the channels and backplane bus</li> </ul>        | 1 500 V AC for 1 minute   |
| <b>Permissible potential difference</b>   |   |
| between different circuits  | 750 V AC for 1 minute   |
| <b>Degree and class of protection</b>   |   |
| IP degree of protection   | IP20  |
| <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> </ul>  | -20 °C  |
| <ul style="list-style-type: none"> <li>max.</li> </ul>  | 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 |
| <ul style="list-style-type: none"> <li>horizontal installation, min.</li> </ul>                 | -20 °C  |
| <ul style="list-style-type: none"> <li>horizontal installation, max.</li> </ul>                 | 60 °C   |
| <ul style="list-style-type: none"> <li>vertical installation, min.</li> </ul>                   | -20 °C  |
| <ul style="list-style-type: none"> <li>vertical installation, max.</li> </ul>                   | 50 °C   |
| <ul style="list-style-type: none"> <li>permissible temperature change</li> </ul>                | 5°C to 55°C, 3°C / minute   |
| <b>Ambient temperature during storage/transportation</b>  |   |
| <ul style="list-style-type: none"> <li>min.</li> </ul>  | -40 °C  |
| <ul style="list-style-type: none"> <li>max.</li> </ul>  | 70 °C   |
| <b>Air pressure acc. to IEC 60068-2-13</b>  |   |
| <ul style="list-style-type: none"> <li>Storage/transport, min.</li> </ul>                       | 660 hPa   |
| <ul style="list-style-type: none"> <li>Storage/transport, max.</li> </ul>                       | 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>connection method / header</b>   |   |
| required front connector  | Yes   |
| <b>Mechanics/material</b>   |   |
| Enclosure material (front)  |   |
| <ul style="list-style-type: none"> <li>Plastic</li> </ul>                                       | Yes   |
| <b>Dimensions</b>   |   |
| Width   | 45 mm   |
| Height  | 100 mm  |
| Depth   | 75 mm   |
| <b>Weights</b>  |   |
| Weight, approx.   | 260 g   |
| <b>last modified:</b>   | 2/26/2021    |

