



Figure similar

\*\*\*spare part\*\*\* SIMATIC S7-300, digital output SM 322 High Speed, isolated, 16 DO, 24 V DC, 0.5 A, 1x 20-pole

| Supply voltage                                           |                                     |
|----------------------------------------------------------|-------------------------------------|
| Load voltage L+                                          |                                     |
| • Rated value (DC)                                       | 24 V                                |
| • permissible range, lower limit (DC)                    | 20.4 V                              |
| • permissible range, upper limit (DC)                    | 28.8 V                              |
| Input current                                            |                                     |
| from load voltage L+ (without load), max.                | 110 mA                              |
| from backplane bus 5 V DC, max.                          | 70 mA                               |
| Power loss                                               |                                     |
| Power loss, typ.                                         | 5 W                                 |
| Digital outputs                                          |                                     |
| Number of digital outputs                                | 16                                  |
| Short-circuit protection                                 | Yes; Electronic                     |
| • Response threshold, typ.                               | 1 A                                 |
| Limitation of inductive shutdown voltage to              | L+ (-53 V)                          |
| Controlling a digital input                              | Yes                                 |
| Switching capacity of the outputs                        |                                     |
| • on lamp load, max.                                     | 5 W                                 |
| Load resistance range                                    |                                     |
| • lower limit                                            | 48 Ω                                |
| • upper limit                                            | 4 kΩ                                |
| Output voltage                                           |                                     |
| • for signal "1", min.                                   | L+ (-0.8 V)                         |
| Output current                                           |                                     |
| • for signal "1" rated value                             | 0.5 A                               |
| • for signal "1" permissible range for 0 to 40 °C, min.  | 5 mA                                |
| • for signal "1" permissible range for 0 to 40 °C, max.  | 0.6 A                               |
| • for signal "1" permissible range for 40 to 60 °C, min. | 5 mA                                |
| • for signal "1" permissible range for 40 to 60 °C, max. | 0.6 A                               |
| • for signal "1" minimum load current                    | 5 mA                                |
| • for signal "0" residual current, max.                  | 0.5 mA                              |
| Output delay with resistive load                         |                                     |
| • "0" to "1", max.                                       | 100 μs                              |
| • "1" to "0", max.                                       | 200 μs                              |
| Parallel switching of two outputs                        |                                     |
| • for uprating                                           | No                                  |
| • for redundant control of a load                        | Yes; only outputs of the same group |
| Switching frequency                                      |                                     |

|                                                                                                                                                                                                                |                                       |         |                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|---------|----------------|
| <ul style="list-style-type: none"><li>• with resistive load, max.</li><li>• with inductive load, max.</li><li>• with inductive load (acc. to IEC 60947-5-1, DC13), max.</li><li>• on lamp load, max.</li></ul> | 1 000 Hz<br>0.5 Hz<br>0.5 Hz<br>10 Hz |         |                |
| Total current of the outputs (per group)                                                                                                                                                                       |                                       |         |                |
| horizontal installation                                                                                                                                                                                        |                                       |         |                |
| — up to 40 °C, max.                                                                                                                                                                                            | 4 A                                   |         |                |
| — up to 60 °C, max.                                                                                                                                                                                            | 3 A                                   |         |                |
| vertical installation                                                                                                                                                                                          |                                       |         |                |
| — up to 40 °C, max.                                                                                                                                                                                            | 2 A                                   |         |                |
| Cable length                                                                                                                                                                                                   |                                       |         |                |
| <ul style="list-style-type: none"><li>• shielded, max.</li><li>• unshielded, max.</li></ul>                                                                                                                    | 1 000 m<br>600 m                      |         |                |
| Interrupts/diagnostics/status information                                                                                                                                                                      |                                       |         |                |
| Alarms                                                                                                                                                                                                         | No                                    |         |                |
| Diagnostics function                                                                                                                                                                                           | No                                    |         |                |
| Alarms                                                                                                                                                                                                         |                                       |         |                |
| <ul style="list-style-type: none"><li>• Diagnostic alarm</li></ul>                                                                                                                                             | No                                    |         |                |
| Diagnoses                                                                                                                                                                                                      |                                       |         |                |
| <ul style="list-style-type: none"><li>• Wire break</li><li>• Short-circuit</li><li>• Fuse blown</li><li>• Missing load voltage</li></ul>                                                                       | No<br>No<br>No<br>No                  |         |                |
| Diagnostics indication LED                                                                                                                                                                                     |                                       |         |                |
| <ul style="list-style-type: none"><li>• Rated load voltage PWR (green)</li><li>• Fuse OK FSG (green)</li><li>• Status indicator digital output (green)</li></ul>                                               | No<br>No<br>Yes; per channel          |         |                |
| Potential separation                                                                                                                                                                                           |                                       |         |                |
| Potential separation digital outputs                                                                                                                                                                           |                                       |         |                |
| <ul style="list-style-type: none"><li>• between the channels</li><li>• between the channels, in groups of</li><li>• between the channels and backplane bus</li></ul>                                           | Yes<br>8<br>Yes; Optocoupler          |         |                |
| Isolation                                                                                                                                                                                                      |                                       |         |                |
| Isolation tested with                                                                                                                                                                                          | 500 V DC                              |         |                |
| Connection method                                                                                                                                                                                              |                                       |         |                |
| required front connector                                                                                                                                                                                       | 20-pin                                |         |                |
| Dimensions                                                                                                                                                                                                     |                                       |         |                |
| Width                                                                                                                                                                                                          | 40 mm                                 |         |                |
| Height                                                                                                                                                                                                         | 125 mm                                |         |                |
| Depth                                                                                                                                                                                                          | 120 mm                                |         |                |
| Weights                                                                                                                                                                                                        |                                       |         |                |
| Weight, approx.                                                                                                                                                                                                | 200 g                                 |         |                |
| Classifications                                                                                                                                                                                                |                                       |         |                |
|                                                                                                                                                                                                                |                                       | Version | Classification |
|                                                                                                                                                                                                                | eClass                                | 16      | 27-24-22-04    |
|                                                                                                                                                                                                                | 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       |

|        |    |             |
|--------|----|-------------|
| IDEA   | 4  | 3566        |
| UNSPSC | 15 | 32-15-17-05 |

Approvals / Certificates

|                          |       |
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| General Product Approval | other |
|--------------------------|-------|



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