



SIMATIC S7-300, Digital input SM 321, isolated, 16 DI, 24 V DC, 1x 20-pole

Figure similar

| 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 backplane bus 5 V DC, max.                                 | 10 mA       |
| Power loss  |             |
| Power loss, typ.  | 3.5 W       |
| Digital inputs  |             |
| Number of digital inputs  | 16          |
| Input characteristic curve in accordance with IEC 61131, type 1 | Yes         |
| Number of simultaneously controllable inputs                    |             |
| horizontal installation   |             |
| — up to 40 °C, max.   | 16          |
| — up to 60 °C, max.   | 16          |
| vertical installation   |             |
| — up to 40 °C, max.   | 16          |
| Input voltage   |             |
| • Type of input voltage   | DC          |
| • Rated value (DC)  | 24 V        |
| • for signal "0"  | -30 to +5 V |
| • for signal "1"  | 13 to 30V   |
| Input current   |             |
| • for signal "1", typ.  | 7 mA        |
| Input delay (for rated value of input voltage)                  |             |
| for standard inputs   |             |
| — parameterizable   | No          |
| — at "0" to "1", min.   | 1.2 ms      |
| — at "0" to "1", max.   | 4.8 ms      |
| — at "1" to "0", min.   | 1.2 ms      |
| — at "1" to "0", max.   | 4.8 ms      |
| Cable length  |             |
| • shielded, max.  | 1 000 m     |
| • unshielded, max.  | 600 m       |
| Encoder   |             |
| Connectable encoders  |             |
| • 2-wire sensor   | Yes         |
| — permissible quiescent current (2-wire sensor), max.           | 1.5 mA      |

| Interrupts/diagnostics/status information |                  |
|---|------------------|
| Alarms                                    | No               |
| Diagnostics function                      | No               |
| Alarms                                    |                  |
| • Diagnostic alarm                        | No               |
| • Hardware interrupt                      | No               |
| Diagnostics indication LED                |                  |
| • Status indicator digital input (green)  | Yes              |
| Potential separation                      |                  |
| Potential separation digital inputs       |                  |
| • between the channels                    | No               |
| • between the channels, in groups of      | 16               |
| • between the channels and backplane bus  | 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 | 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   | 9       | EC001419       |
|                 | ETIM   | 8       | EC001419       |
|                 | ETIM   | 7       | EC001419       |
|                 | IDEA   | 4       | 3566           |
|                 | UNSPSC | 15      | 32-15-17-05    |

| Approvals / Certificates |     |                      |
|--------------------------|-----|----------------------|
| General Product Approval | EMV | Maritime application |



[Miscellaneous](#)



| other                         | Environment                                       |
|-------------------------------|---|
| <a href="#">Confirmation</a>  | <a href="#">Environmental Con-<br/>firmations</a> |
| <a href="#">Miscellaneous</a> | <a href="#">Environmental Con-<br/>firmations</a> |

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