



SIMATIC S7-300, Digital input SM 321, Isolated 32 DI, 24 V DC, 1x 40-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 backplane bus 5 V DC, max.                                 | 15 mA       |
| Power loss                                                      |             |
| Power loss, typ.                                                | 6.5 W       |
| Digital inputs                                                  |             |
| Number of digital inputs                                        | 32          |
| Input characteristic curve in accordance with IEC 61131, type 1 | Yes         |
| Number of simultaneously controllable inputs                    |             |
| horizontal installation                                         |             |
| — up to 40 °C, max.                                             | 32          |
| — up to 60 °C, max.                                             | 16          |
| vertical installation                                           |             |
| — up to 40 °C, max.                                             | 32          |
| 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                 | 40-pin           |         |                |
| Dimensions                               |                  |         |                |
| Width                                    | 40 mm            |         |                |
| Height                                   | 125 mm           |         |                |
| Depth                                    | 120 mm           |         |                |
| Weights                                  |                  |         |                |
| Weight, approx.                          | 260 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 | other | Environment |



[Confirmation](#)



[Environmental Confirmations](#)

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