



Figure similar

\*\*\* spare part \*\*\* SIMATIC S7-300, digital input SM 321, isolated 16 DI, 120/230 V AC, 1x 20-pole

| Supply voltage                                                  |                                                                  |
|-----------------------------------------------------------------|------------------------------------------------------------------|
| Load voltage L1                                                 |                                                                  |
| • Rated value (AC)                                              | 230 V; 120/230 V AC; all load voltages must have the same phase. |
| Input current                                                   |                                                                  |
| from backplane bus 5 V DC, max.                                 | 29 mA                                                            |
| Power loss                                                      |                                                                  |
| Power loss, typ.                                                | 4.9 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                                         | AC                                                               |
| • Rated value (AC)                                              | 230 V; 120/230 V AC (47 ... 63 Hz)                               |
| • for signal "0"                                                | 0 to 40V                                                         |
| • for signal "1"                                                | 79 to 264V                                                       |
| Input current                                                   |                                                                  |
| • for signal "1", typ.                                          | 6.5 mA; (120 V, 60 Hz), 16 mA (230 V, 50 Hz)                     |
| Input delay (for rated value of input voltage)                  |                                                                  |
| for standard inputs                                             |                                                                  |
| — parameterizable                                               | No                                                               |
| — at "0" to "1", min.                                           | 25 ms                                                            |
| — at "0" to "1", max.                                           | 25 ms                                                            |
| — at "1" to "0", max.                                           | 25 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.           | 2 mA                                                             |
| Interrupts/diagnostics/status information                       |                                                                  |
| Alarms                                                          | No                                                               |
| Diagnostics function                                            | No                                                               |

|                                            |                  |
|--------------------------------------------|------------------|
| <b>Alarms</b>                              |                  |
| • Diagnostic alarm                         | No               |
| • Hardware interrupt                       | No               |
| <b>Diagnostics indication LED</b>          |                  |
| • Group error SF (red)                     | No               |
| • Status indicator digital input (green)   | Yes              |
| <b>Potential separation</b>                |                  |
| <b>Potential separation digital inputs</b> |                  |
| • between the channels                     | No               |
| • between the channels, in groups of       | 4                |
| • between the channels and backplane bus   | Yes; Optocoupler |
| <b>Isolation</b>                           |                  |
| Isolation tested with                      | 4 000 V DC       |
| <b>connection method</b>                   |                  |
| required front connector                   | 20-pin           |
| <b>Dimensions</b>                          |                  |
| Width                                      | 40 mm            |
| Height                                     | 125 mm           |
| Depth                                      | 120 mm           |
| <b>Weights</b>                             |                  |
| Weight, approx.                            | 240 g            |
| <b>Classifications</b>                     |                  |

|        | 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 |
|--------------------------|-----|



[Miscellaneous](#)



|     |                                |                      |
|-----|--------------------------------|----------------------|
| EMV | For use in hazardous locations | Maritime application |
|-----|--------------------------------|----------------------|



[FM](#)



|                      |
|----------------------|
| Maritime application |
|----------------------|



[NK / Nippon Kaiji Kyokai](#)



[CCS \(China Classification Society\)](#)

