SIEMENS

## Data sheet 6ES7321-1BH10-0AA0

***spare part*** SIMATIC S7-300, digital input SM 321, isolated, 16 DI, 24 V DC, 1x 20-pole, 0.05 ms input delay

| | |
|---|---|
| **General information** | |
| Product function | |
| ● Isochronous mode | Yes |
| **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. | 110 mA |
| **Power loss** | |
| Power loss, typ. | 3.8 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. | 25 µs |
| — at "0" to "1", max. | 75 µs |
| — at "1" to "0", min. | 25 µs |
| — at "1" to "0", max. | 75 µs |
| 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 | |


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| | |
|---|---|
| ● 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 | 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**

**General Product Approval**

Miscellaneous

**General Product Approval** | **EMV** | **For use in hazardous locations**

China RoHS

FM

**For use in hazardous locations** | **Maritime application**

Miscellaneous | CCC-Ex

**Maritime application**


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NK / Nippon Kaiji Kyokai





**Maritime application**

CCS (China Classification Society)

**last modified:** 4/7/2025


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