

SIPLUS S7-300 SM 321 16DI 0-1 threshold at approx. 11.2 V with conformal coating based on 6ES7321-7BH01-0AB0 . Digital "input SM 321, isolated, ""16 DI;"" 24 V DC, 1x 20-pole, "" process" interrupt, diagnostics, suitable for isochronous mode operation



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 load voltage L+ (without load), max. | 90 mA |
| from backplane bus 5 V DC, max. | 130 mA |
| Power loss | |
| Power loss, typ. | 4 W |
| Digital inputs | |
| Number of digital inputs | 16 |
| Input characteristic curve in accordance with IEC 61131, type 2 | Yes |
| Number of simultaneously controllable inputs | |
| horizontal installation | |

| | |
|---|---------------------------------|
| — 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 ... +11.2 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 | Yes; 0.1 / 0.5 / 3 / 15 / 20 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 |
| Isochronous mode | |
| Isochronous operation (application synchronized up to terminal) | Yes |
| Interrupts/diagnostics/status information | |
| Diagnostics function | Yes; Parameterizable |
| Alarms | |
| • Diagnostic alarm | Yes; Parameterizable |
| • Hardware interrupt | Yes; Parameterizable |
| Diagnostic messages | |
| • Wire-break | Yes; to I< 1 mA |
| Diagnostics indication LED | |
| • Group error SF (red) | Yes |
| • 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 |
| Permissible potential difference | |

| | |
|---|---|
| between different circuits | 75 V DC/60 V AC |
| Isolation | |
| Isolation tested with | 500 V DC |
| Standards, approvals, certificates | |
| CE mark | Yes |
| UL approval | Yes; File E239877 |
| RCM (formerly C-TICK) | Yes |
| KC approval | Yes |
| EAC (formerly Gost-R) | Yes |
| Use in hazardous areas | |
| • ATEX | Yes |
| Ambient conditions | |
| Ambient temperature during operation | |
| • min. | 0 °C; = Tmin |
| • max. | 60 °C; = Tmax |
| Ambient temperature during storage/transportation | |
| • min. | -40 °C |
| • max. | 70 °C |
| Altitude during operation relating to sea level | |
| • Installation altitude above sea level, max. | 5 000 m |
| • Ambient air temperature-barometric pressure-altitude | Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m) |
| Relative humidity | |
| • With condensation, tested in accordance with IEC 60068-2-38, max. | 100 %; RH incl. condensation/frost (no commissioning under condensation conditions) |
| Resistance | |
| Use in stationary industrial systems | |
| — to biologically active substances according to EN 60721-3-3 | Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request |
| — to chemically active substances according to EN 60721-3-3 | Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); * |
| — to mechanically active substances according to EN 60721-3-3 | Yes; Class 3S4 incl. sand, dust, * |
| Use on ships/at sea | |
| — to biologically active substances according to EN 60721-3-6 | Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request |
| — to chemically active substances according to EN 60721-3-6 | Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); * |
| — to mechanically active substances according to EN 60721-3-6 | Yes; Class 6S3 incl. sand, dust; * |
| Usage in industrial process technology | |

— Against chemically active substances acc. to EN 60654-4

Yes

— Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04

Yes

Remark

— Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04

* The supplied plug covers must remain in place over the unused interfaces during operation!

Connection method

required front connector

20-pin

Dimensions

Width

40 mm

Height

125 mm

Depth

120 mm

Weights

Weight, approx.

200 g

last modified:

08/15/2019