

SIPLUS S7-300 SM 322 (-1BF01) -25...+70°C with conformal coating based on 6ES7322-1BF01-0AA0. Digital output SM 322, isolated, 8 DO, 24 V DC, 2A, 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 load voltage L+ (without load), max.   | 60 mA           |
| from backplane bus 5 V DC, max.             | 40 mA           |
| Power loss                                  |                 |
| Power loss, typ.                            | 6.8 W           |
| Digital outputs                             |                 |
| Number of digital outputs                   | 8               |
| Short-circuit protection                    | Yes; Electronic |
| • Response threshold, typ.                  | 3 A             |
| Limitation of inductive shutdown voltage to | L+ (-48 V)      |
| Controlling a digital input                 | Yes             |

|   |             |
|---|-------------|
| <b>Switching capacity of the outputs</b>                  |             |
| • on lamp load, max.                                      | 10 W        |
| <b>Load resistance range</b>                              |             |
| • lower limit   | 12 Ω        |
| • upper limit   | 4 kΩ        |
| <b>Output voltage</b>                                     |             |
| • for signal "1", min.                                    | L+ (-0.8 V) |
| <b>Output current</b>                                     |             |
| • for signal "1" rated value                              | 2 A         |
| • for signal "1" permissible range for 0 to 40 °C, min.   | 5 mA        |
| • for signal "1" permissible range for 0 to 40 °C, max.   | 2.4 A       |
| • for signal "1" permissible range for 40 to 60 °C, min.  | 5 mA        |
| • for signal "1" permissible range for 40 to 60 °C, max.  | 2.4 A       |
| • for signal "1" minimum load current                     | 5 mA        |
| • for signal "0" residual current, max.                   | 0.5 mA      |
| <b>Output delay with resistive load</b>                   |             |
| • "0" to "1", max.  | 100 μs      |
| • "1" to "0", max.  | 500 μs      |
| <b>Parallel switching of two outputs</b>                  |             |
| • for uprating  | No          |
| • for redundant control of a load                         | Yes         |
| <b>Switching frequency</b>                                |             |
| • with resistive load, max.                               | 100 Hz      |
| • with inductive load, max.                               | 0.5 Hz      |
| • with inductive load (acc. to IEC 60947-5-1, DC13), max. | 0.5 Hz      |
| • on lamp load, max.                                      | 10 Hz       |
| <b>Total current of the outputs (per group)</b>           |             |
| horizontal installation                                   |             |
| — up to 60 °C, max.                                       | 4 A         |
| — up to 70 °C, max.                                       | 4 A         |
| vertical installation                                     |             |
| — up to 40 °C, max.                                       | 4 A         |
| <b>Cable length</b>                                       |             |
| • shielded, max.  | 1 000 m     |
| • unshielded, max.  | 600 m       |
| <b>Interrupts/diagnostics/status information</b>          |             |
| Alarms  | No          |

|   |   |
|---|---|
| Diagnostics function  | No  |
| <b>Alarms</b>   |   |
| • Diagnostic alarm  | No  |
| <b>Diagnoses</b>  |   |
| • Wire-break  | No  |
| • Short-circuit   | No  |
| • Fuse blown  | No  |
| • missing load voltage  | No  |
| <b>Diagnostics indication LED</b>                                   |   |
| • Rated load voltage PWR (green)                                    | No  |
| • Fuse OK FSG (green)   | No  |
| • Status indicator digital output (green)                           | Yes; per channel  |
| <b>Potential separation</b>   |   |
| <b>Potential separation digital outputs</b>                         |   |
| • between the channels  | Yes   |
| • between the channels, in groups of                                | 4   |
| • between the channels and backplane bus                            | Yes; Optocoupler  |
| <b>Isolation</b>  |   |
| Isolation tested with   | 500 V DC  |
| <b>Standards, approvals, certificates</b>                           |   |
| CE mark   | Yes   |
| UL approval   | Yes; File E239877   |
| <b>Railway application</b>  |   |
| • EN 50121-4  | No  |
| • EN 50155  | No  |
| <b>Ambient conditions</b>   |   |
| <b>Ambient temperature during operation</b>                         |   |
| • min.  | -25 °C  |
| • max.  | 70 °C; = Tmax; 60 °C @ UL/cUL use   |
| <b>Ambient temperature during storage/transportation</b>            |   |
| • min.  | -40 °C  |
| • max.  | 70 °C   |
| <b>Altitude during operation relating to sea level</b>              |   |
| • 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) |
| <b>Relative humidity</b>  |   |
| • 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; Class 3 (excluding trichlorethylene)   |
| — Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04                | Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil) |
| 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.   | 190 g   |
| <b>last modified:</b>   | 10/09/2020  |