

SIPLUS S7-1500 DI 16x24 V DC SRC -40...+70°C with conformal coating based on 6ES7521-1BH50-0AA0 . Digital "input module ""DI 16x24 V DC," "source-input;"" ""16 channels in" "groups of 16;"" ""Input delay 3.2" "ms;"" Input type 3 (IEC 61131)"



Figure similar

| General information  |   |
|--|---|
| Product type designation   | DI 16x24VDC SRC BA  |
| Product function   |   |
| <ul style="list-style-type: none"> <li>• I&amp;M data</li> <li>• Isochronous mode</li> <li>• Fast startup</li> </ul> | Yes; I&M0 to I&M3<br>No<br>Yes; 500 ms                            |
| Supply voltage   |   |
| Rated value (DC)   | 24 V  |
| permissible range, lower limit (DC)  | 19.2 V  |
| permissible range, upper limit (DC)  | 28.8 V  |
| Power  |   |
| Power available from the backplane bus   | 0.9 W   |
| Power loss   |   |
| Power loss, typ.   | 2.8 W   |
| Digital inputs   |   |
| Number of digital inputs   | 16; > +60 °C, number of simultaneously controllable inputs max. 8 |

|   |                |
|---|----------------|
| Source/sink input   | Yes; Sourcing  |
| Input characteristic curve in accordance with IEC 61131, type 3 | Yes            |
| <b>Input voltage</b>  |                |
| • Rated value (DC)  | 24 V           |
| • for signal "0"  | -5 to +30V     |
| • for signal "1"  | -11 to -30V    |
| <b>Input current</b>  |                |
| • for signal "1", typ.  | 4.5 mA         |
| <b>Input delay (for rated value of input voltage)</b>           |                |
| for standard inputs   |                |
| — parameterizable   | No             |
| — at "0" to "1", min.   | 3 ms           |
| — at "0" to "1", max.   | 4 ms           |
| — at "1" to "0", min.   | 3 ms           |
| — at "1" to "0", max.   | 4 ms           |
| for interrupt inputs  |                |
| — parameterizable   | No             |
| <b>Cable length</b>   |                |
| • shielded, max.  | 1 000 m        |
| • unshielded, max.  | 600 m          |
| <b>Encoder</b>  |                |
| <b>Connectable encoders</b>                                     |                |
| • 2-wire sensor   | Yes            |
| — permissible quiescent current (2-wire sensor), max.           | 1.5 mA         |
| <b>Interrupts/diagnostics/status information</b>                |                |
| Diagnostics function  | No             |
| <b>Alarms</b>   |                |
| • Diagnostic alarm  | No             |
| • Hardware interrupt  | No             |
| <b>Diagnostic messages</b>                                      |                |
| • Monitoring the supply voltage                                 | No             |
| • Wire-break  | No             |
| • Short-circuit   | No             |
| • Fuse blown  | No             |
| <b>Diagnostics indication LED</b>                               |                |
| • RUN LED   | Yes; green LED |
| • ERROR LED   | Yes; red LED   |
| • Monitoring of the supply voltage (PWR-LED)                    | No             |
| • Channel status display  | Yes; green LED |

|   |   |
|---|---|
| • for channel diagnostics   | No  |
| • for module diagnostics  | No  |
| <b>Potential separation</b>   |   |
| <b>Potential separation channels</b>                                |   |
| • between the channels  | No  |
| • between the channels, in groups of                                | 16  |
| • between the channels and backplane bus                            | Yes   |
| <b>Permissible potential difference</b>                             |   |
| between different circuits  | 75 V DC/60 V AC   |
| <b>Isolation</b>  |   |
| Isolation tested with   | 707 V DC (type test)  |
| <b>Standards, approvals, certificates</b>                           |   |
| Suitable for safety functions                                       | No  |
| <b>Ambient conditions</b>   |   |
| <b>Ambient temperature during operation</b>                         |   |
| • horizontal installation, min.                                     | -40 °C; = Tmin (incl. condensation/frost)   |
| • horizontal installation, max.                                     | 70 °C; = Tmax; > +60 °C number of simultaneously controllable inputs max. 8   |
| • vertical installation, min.                                       | -40 °C; = Tmin  |
| • vertical installation, max.                                       | 40 °C; = Tmax   |
| <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)   |
| <b>Resistance</b>   |   |
| <b>Coolants and lubricants</b>                                      |   |
| — Resistant to commercially available coolants and lubricants       | Yes; Incl. diesel and oil droplets in the air   |
| <b>Use in stationary industrial systems</b>                         |   |
| — 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, *  |
| <b>Use on ships/at sea</b>  |   |

|   |   |
|---|---|
| — 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; *  |
| <b>Usage in industrial process technology</b>   |   |
| — 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) |
| <b>Remark</b>   |   |
| — 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!  |
| <b>Conformal coating</b>  |   |
| • Coatings for printed circuit board assemblies acc. to EN 61086  | Yes; Class 2 for high reliability   |
| • Protection against fouling acc. to EN 60664-3   | Yes; Type 1 protection  |
| • Military testing according to MIL-I-46058C, Amendment 7   | Yes; Discoloration of coating possible during service life  |
| • Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A | Yes; Conformal coating, Class A   |
| <b>Dimensions</b>   |   |
| Width   | 35 mm   |
| Height  | 147 mm  |
| Depth   | 129 mm  |
| <b>Weights</b>  |   |
| Weight, approx.   | 230 g   |
| <b>last modified:</b>   | 05/15/2020  |