



Figure similar

SIPLUS S7-1500 DI 16x24VDC SRC based on 6ES7521-1BH50-0AA0 with conformal coating, -40...+70 °C, digital input module, 16 channels in groups of 16; input delay 3.2 ms; input type 3 (IEC 61131)

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 No 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
Input voltage	
<ul style="list-style-type: none"> <li>Rated value (DC)</li> <li>for signal "0"</li> <li>for signal "1"</li> </ul>	24 V -5 to +30V -11 to -30V
Input current	
<ul style="list-style-type: none"> <li>for signal "1", typ.</li> </ul>	4.5 mA
Input delay (for rated value of input voltage)	
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
Cable length	
<ul style="list-style-type: none"> <li>shielded, max.</li> <li>unshielded, max.</li> </ul>	1 000 m 600 m
Encoder	
Connectable encoders	
<ul style="list-style-type: none"> <li>2-wire sensor</li> </ul>	Yes

— permissible quiescent current (2-wire sensor), max. 1.5 mA

### Interrupts/diagnostics/status information

Diagnostics function No

#### Alarms

- Diagnostic alarm No
- Hardware interrupt No

#### Diagnoses

- Monitoring the supply voltage No
- Wire-break No
- Short-circuit No
- Fuse blown No

#### Diagnostics indication LED

- 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

### Potential separation

#### Potential separation channels

- between the channels No
- between the channels, in groups of 16
- between the channels and backplane bus Yes

### Permissible potential difference

between different circuits 75 V DC/60 V AC

### Isolation

Isolation tested with 707 V DC (type test)

### Standards, approvals, certificates

Suitable for safety functions No

### Ambient conditions

#### Ambient temperature during operation

- 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

#### 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

##### Coolants and lubricants

— Resistant to commercially available coolants and lubricants Yes; Incl. diesel and oil droplets in the air

##### 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 Yes; Class 3 (excluding trichlorethylene)

EN 60654-4

— 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!

**Conformal coating**

- Coatings for printed circuit board assemblies acc. to EN 61086
- Protection against fouling acc. to EN 60664-3
- Military testing according to MIL-I-46058C, Amendment 7
- Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A

Yes; Class 2 for high reliability

Yes; Type 1 protection

Yes; Discoloration of coating possible during service life

Yes; Conformal coating, Class A

**Dimensions**

Width

35 mm

Height

147 mm

Depth

129 mm

**Weights**

Weight, approx.

230 g

**last modified:**

12/18/2020 