



Figure similar

SIPLUS S7-1500 DQ 32x24VDC/0.5A based on 6ES7522-1BL01-0AB0 with conformal coating, -40...+70 °C, digital output module, 32 channels in groups of 8; 4 A per group; single-channel diagnostics; substitute value

General information	
Product type designation	DQ 32x24VDC/0.5A HF
Product function	
<ul style="list-style-type: none"> <li>I&amp;M data</li> <li>Isochronous mode</li> <li>Prioritized startup</li> </ul>	Yes; I&M0 to I&M3 Yes Yes
Operating mode	
<ul style="list-style-type: none"> <li>DQ</li> <li>MSO</li> </ul>	Yes Yes
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes; through internal protection with 7 A per group
Input current	
Current consumption, max.	60 mA
output voltage / header	
Rated value (DC)	24 V
Power	
Power available from the backplane bus	1.1 W
Power loss	
Power loss, typ.	3.5 W
Digital outputs	
Type of digital output	Transistor
Number of digital outputs	32
Current-sourcing	Yes
Digital outputs, parameterizable	Yes
Short-circuit protection	Yes; Clocked electronically
<ul style="list-style-type: none"> <li>Response threshold, typ.</li> </ul>	1 A
Limitation of inductive shutdown voltage to	L+ (-53 V)
Controlling a digital input	Yes
Switching capacity of the outputs	
<ul style="list-style-type: none"> <li>with resistive load, max.</li> <li>on lamp load, max.</li> </ul>	0.5 A 5 W
Load resistance range	
<ul style="list-style-type: none"> <li>lower limit</li> <li>upper limit</li> </ul>	48 Ω 12 kΩ
Output voltage	
<ul style="list-style-type: none"> <li>for signal "1", min.</li> </ul>	L+ (-0.8 V)

<b>Output current</b>	
<ul style="list-style-type: none"> <li>• for signal "1" rated value</li> <li>• for signal "1" permissible range, max.</li> <li>• for signal "0" residual current, max.</li> </ul>	0.5 A 0.5 A 0.5 mA
<b>Output delay with resistive load</b>	
<ul style="list-style-type: none"> <li>• "0" to "1", max.</li> <li>• "1" to "0", max.</li> </ul>	100 µs 500 µs
<b>Parallel switching of two outputs</b>	
<ul style="list-style-type: none"> <li>• for logic links</li> <li>• for uprating</li> <li>• for redundant control of a load</li> </ul>	Yes No Yes
<b>Switching frequency</b>	
<ul style="list-style-type: none"> <li>• with resistive load, max.</li> <li>• with inductive load, max.</li> <li>• on lamp load, max.</li> </ul>	100 Hz 0.5 Hz; According to IEC 60947-5-1, DC-13 10 Hz
<b>Total current of the outputs</b>	
<ul style="list-style-type: none"> <li>• Current per channel, max.</li> <li>• Current per group, max.</li> <li>• Current per module, max.</li> </ul>	0.5 A; see additional description in the manual 4 A; see additional description in the manual 16 A; see additional description in the manual
<b>Cable length</b>	
<ul style="list-style-type: none"> <li>• shielded, max.</li> <li>• unshielded, max.</li> </ul>	1 000 m 600 m
<b>Isochronous mode</b>	
Execution and activation time (TCO), min.	70 µs
Bus cycle time (TDP), min.	250 µs
<b>Interrupts/diagnostics/status information</b>	
Diagnostics function	Yes
Substitute values connectable	Yes
<b>Alarms</b>	
<ul style="list-style-type: none"> <li>• Diagnostic alarm</li> </ul>	Yes
<b>Diagnoses</b>	
<ul style="list-style-type: none"> <li>• Monitoring the supply voltage</li> <li>• Wire-break</li> <li>• Short-circuit</li> <li>• Group error</li> </ul>	Yes Yes Yes Yes
<b>Diagnostics indication LED</b>	
<ul style="list-style-type: none"> <li>• RUN LED</li> <li>• ERROR LED</li> <li>• Monitoring of the supply voltage (PWR-LED)</li> <li>• Channel status display</li> <li>• for channel diagnostics</li> <li>• for module diagnostics</li> </ul>	Yes; green LED Yes; red LED Yes; green LED Yes; green LED Yes; red LED Yes; red LED
<b>Potential separation</b>	
<b>Potential separation channels</b>	
<ul style="list-style-type: none"> <li>• between the channels</li> <li>• between the channels, in groups of</li> <li>• between the channels and backplane bus</li> </ul>	No 8 Yes
<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>	
<ul style="list-style-type: none"> <li>• horizontal installation, min.</li> <li>• horizontal installation, max.</li> </ul>	-40 °C; = Tmin (incl. condensation/frost) 70 °C; = Tmax; see Derating BasedOn (e.g. manual), additionally Tmax > 60 °C max. aggregate current 2 A per group
<b>Altitude during operation relating to sea level</b>	
<ul style="list-style-type: none"> <li>• Installation altitude above sea level, max.</li> <li>• Ambient air temperature-barometric pressure-altitude</li> </ul>	5 000 m 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>	
<ul style="list-style-type: none"> <li>• With condensation, tested in accordance with IEC</li> </ul>	100 %; RH incl. condensation / frost (no commissioning in bedewed)

60068-2-38, max.	state), horizontal installation
<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>	
<ul style="list-style-type: none"> <li>• Coatings for printed circuit board assemblies acc. to EN 61086</li> <li>• Protection against fouling acc. to EN 60664-3</li> <li>• Military testing according to MIL-I-46058C, Amendment 7</li> <li>• Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A</li> </ul>	<p>Yes; Class 2 for high reliability</p> <p>Yes; Type 1 protection</p> <p>Yes; Discoloration of coating possible during service life</p> <p>Yes; Conformal coating, Class A</p>
<b>Dimensions</b>	
Width	35 mm
Height	147 mm
Depth	129 mm
<b>Weights</b>	
Weight, approx.	280 g
<b>last modified:</b>	4/29/2021 