



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
Firmware version	
• FW update possible	Yes
based on	<a href="#">6ES7521-1BH50-0AA0</a>
Product function	
• I&M data	Yes; I&M0 to I&M3
• Isochronous mode	No
• Prioritized startup	Yes
Engineering with	
• STEP 7 TIA Portal configurable/integrated from version	see entry ID: 109746275
Operating mode	
• DI	Yes
• Counter	No
• MSI	Yes
Supply voltage	
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Power	
Power consumption 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
Sourcing/sinking input	Yes; Sourcing
Input characteristic curve in accordance with IEC 61131, type 3	Yes
Input voltage	
• Rated value (DC)	24 V
• for signal "0"	-5 to +30V
• for signal "1"	-11 to -30V
Input current	
• for signal "1", typ.	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
for technological functions	
— Parameterizable	No
Cable length	
• shielded, max.	1 000 m
• unshielded, max.	600 m
<b>Encoder</b>	
Connectable encoders	
• 2-wire sensor	Yes
— permissible quiescent current (2-wire sensor), max.	1.5 mA
<b>Interrupts/diagnostics/status information</b>	
Diagnostics function	No
Alarms	
• Diagnostic alarm	No
• Hardware interrupt	No
Diagnoses	
• Monitoring the supply voltage	No
• Wire break	No
• short-circuit	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
<b>Potential separation</b>	
Potential separation channels	
• between the channels	No
• between the channels, in groups of	16
• between the channels and backplane bus	Yes
<b>Isolation</b>	
Isolation tested with	707 V DC (type test)
<b>Standards, approvals, certificates</b>	
Suitable for safety functions	No
Ecological footprint	
• environmental product declaration	Yes
Global warming potential	
— global warming potential, (total) [CO2 eq]	18.9 kg
— global warming potential, (during production) [CO2 eq]	12.1 kg
— global warming potential, (during operation) [CO2 eq]	7.66 kg
— global warming potential, (after end of life cycle) [CO2 eq]	-1.02 kg
<b>Security</b>	
signed firmware update	No
data integrity	No
<b>Ambient conditions</b>	
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)		
<b>Relative humidity</b>			
<ul style="list-style-type: none"> <li>With condensation, tested in accordance with IEC 60068-2-38, max.</li> </ul>	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>			
<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.	230 g		
<b>Classifications</b>			
		<b>Version</b>	<b>Classification</b>
	eClass	16	27-24-22-04
	eClass	14	27-24-22-04
	eClass	12	27-24-22-04
	eClass	9.1	27-24-22-04
	eClass	9	27-24-22-04
	eClass	8	27-24-22-04
	eClass	7.1	27-24-22-04
	eClass	6	27-24-22-04
	ETIM	10	EC001419
	ETIM	9	EC001419
	ETIM	8	EC001419
	ETIM	7	EC001419
	IDEA	4	3566

## Approvals / Certificates

## General Product Approval



[Manufacturer Declaration](#)



[China RoHS](#)



## General Product Approval

## EMV

## For use in hazardous locations

[China RoHS](#)



## For use in hazardous locations

## Maritime application

## Environment



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