






Figure similar

SIPLUS S7-1500 DI 16x230V AC BA based on 6ES7521-1FH00-0AA0 with conformal coating, -40...+70 °C, digital input module, 16 channels in groups of 4; input delay 20 ms; input type 1 (IEC 61131)

General information	
Product type designation	DI 16x230VAC BA
based on	6ES7521-1FH00-0AA0
Product function	
• I&M data	Yes; I&M0 to I&M3
• Isochronous mode	No
• Fast startup	Yes; 500 ms
Engineering with	
• STEP 7 TIA Portal configurable/integrated from version	see entry ID: 109746275
Power	
Power consumption from the backplane bus	1 W
Power loss	
Power loss, typ.	4.9 W
Digital inputs	
Number of digital inputs	16; > +60 °C, number of simultaneously controllable inputs max. 8
Input characteristic curve in accordance with IEC 61131, type 1	Yes
Input voltage	
• Rated value (AC)	230 V; 120/230 V AC (47 Hz to 63 Hz)
• for signal "0"	0V AC to 40V AC
• for signal "1"	79V AC to 264V AC
Input current	
• for signal "1", typ.	11 mA; At 230 V AC/50 Hz and 6.5 mA at 120 V AC/50 Hz
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	No
— at "0" to "1", max.	25 ms
— at "1" to "0", max.	25 ms
for interrupt inputs	
— parameterizable	No
Cable length	
• shielded, max.	1 000 m
• unshielded, max.	600 m
Encoder	
Connectable encoders	
• 2-wire sensor	Yes
— permissible quiescent current (2-wire sensor), max.	2 mA
Interrupts/diagnostics/status information	
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	Yes; red LED
Potential separation	
Potential separation channels	
• between the channels	No
• between the channels, in groups of	4
• between the channels and backplane bus	Yes
Permissible potential difference	
between different circuits	250 V AC between the channels and the backplane bus; 500 V AC between the channels
Isolation	
Isolation tested with	2 500 V DC
Standards, approvals, certificates	
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
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.	2 000 m
• Ambient air temperature-barometric pressure-altitude	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 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	Yes; Class 6S3 incl. sand, dust; *

60721-3-6																																								
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!																																							
Conformal coating																																								
• 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																																							
Dimensions																																								
Width	35 mm																																							
Height	147 mm																																							
Depth	129 mm																																							
Weights																																								
Weight, approx.	200 g																																							
Classifications																																								
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