

SIPLUS S7-1500 DI 16x230V AC BA -40...+70°C with conformal coating based on 6ES7521-1FH00-0AA0 . Digital input module DI 16x230 V AC, "16 channels in groups of 4;" "Input delay 20ms; Input type" 1 (IEC 61131)



Figure similar

General information	
Product function	
• I&M data	Yes; I&M0 to I&M3
Power	
Power available 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
Isochronous mode	
Isochronous operation (application synchronized up to terminal)	No
Interrupts/diagnostics/status information	
Alarms	
• Diagnostic alarm	No
• Hardware interrupt	No
Diagnostic messages	
• 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

<b>Permissible potential difference</b>	
between different circuits	250 V AC between the channels and the backplane bus; 500 V AC between the channels
<b>Isolation</b>	
Isolation tested with	2500 V DC
<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.	2 000 m
• Ambient air temperature-barometric pressure-altitude	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 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)
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	
<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 availability</p> <p>Yes; Type 1 protection</p> <p>Yes; Discoloration of coating possible during service life</p> <p>Yes; Conformal coating, Class A</p>
Decentralized operation	
Fast Startup supported	Yes; 500 ms
Dimensions	
Width	35 mm
Height	147 mm
Depth	129 mm
Weights	
Weight, approx.	200 g
<b>last modified:</b>	08/30/2019