## **SIEMENS**

## Data sheet

## 6ES7521-1FH00-0AA0

SIMATIC S7-1500, digital input module DI 16x230 V AC BA, 16 channels in groups of 4; Input delay 20 ms; Input type 1 (IEC 61131): Front connector (screw terminals or push-in) to be ordered separately



Figure similar

General information	
HW functional status	FS01
Firmware version	V2.0.0
<ul> <li>FW update possible</li> </ul>	Yes
Product function	
● I&M data	Yes; I&M0 to I&M3
Prioritized startup	Yes
Engineering with	
<ul> <li>STEP 7 TIA Portal configurable/integrated as of version</li> </ul>	V12 / V12
<ul> <li>STEP 7 configurable/integrated as of version</li> </ul>	V5.5 SP3 / -
<ul> <li>PROFIBUS as of GSD version/GSD revision</li> </ul>	V1.0 / V5.1
<ul> <li>PROFINET as of GSD version/GSD revision</li> </ul>	V2.3 / -
Operating mode	
• DI	Yes
Counter	No
• MSI	Yes

Power	
Power available from the backplane bus	1 W
Power loss	
Power loss, typ.	4.9 W
Digital inputs	16
Number of digital inputs	
Digital inputs, parameterizable	No
Source/sink input	P-reading Yes
Input characteristic curve in accordance with IEC 61131, type 1	res
Input voltage	
<ul> <li>Rated value (AC)</li> </ul>	230 V; 120/230 V AC, 50/60 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 and 5.5 mA at 120 V AC
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
for technological functions	
— parameterizable	No
Cable length	
● shielded, max.	1 000 m
• unshielded, max.	600 m
Freedo	
Encoder Connectable encoders	
• 2-wire sensor	Yes
	2 mA
<ul> <li>permissible quiescent current (2-wire sensor), max.</li> </ul>	
Isochronous mode	
Isochronous operation (application synchronized up to terminal)	No
Interrupts/diagnostics/status information	
Diagnostics function	No
Alarms	
<ul> <li>Diagnostic alarm</li> </ul>	No

Hardware interrupt	No
Diagnostic messages	
<ul> <li>Monitoring the supply voltage</li> </ul>	No
• Wire-break	No
Short-circuit	No
Diagnostics indication LED	
• RUN LED	Yes; Green LED
• ERROR LED	Yes; Red LED
<ul> <li>Monitoring of the supply voltage (PWR-LED)</li> </ul>	No
<ul> <li>Channel status display</li> </ul>	Yes; Green LED
<ul> <li>for channel diagnostics</li> </ul>	No
<ul> <li>for module diagnostics</li> </ul>	Yes; Red LED
Potential separation	
Potential separation channels	
<ul> <li>between the channels</li> </ul>	No
<ul> <li>between the channels, in groups of</li> </ul>	4
<ul> <li>between the channels and backplane bus</li> </ul>	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	3 100 V DC
Standards, approvals, certificates	
Suitable for safety functions	No
Ambient conditions	
Ambient temperature during operation	
<ul> <li>horizontal installation, min.</li> </ul>	0°0
<ul> <li>horizontal installation, max.</li> </ul>	60 °C
<ul> <li>vertical installation, min.</li> </ul>	0 °C
<ul> <li>vertical installation, max.</li> </ul>	40 °C
Dimensions	
Width	35 mm
Height	147 mm
Depth	129 mm
Depth Weights	129 mm
	129 mm 300 g