## **SIEMENS**

## **Data sheet**

6ES7521-1BH50-0AA0



SIMATIC S7-1500, digital input module DI 16x24 V DC BA, sourcing input; 16 channels in groups of 16; Input delay 3.2 ms; Input type 3 (IEC 61131): Front connector (screw terminals or push-in) to be ordered separately

Figure similar

General information	
Product type designation	DI 16x24VDC SRC BA
HW functional status	FS01
Firmware version	V2.0.0
FW update possible	Yes
Product function	
● I&M data	Yes; I&M0 to I&M3
<ul> <li>Isochronous mode</li> </ul>	No
Prioritized startup	Yes
Engineering with	
<ul> <li>STEP 7 TIA Portal configurable/integrated from version</li> </ul>	V12 / V12
<ul> <li>STEP 7 configurable/integrated from version</li> </ul>	V5.5 SP3 / -
<ul> <li>PROFIBUS from GSD version/GSD revision</li> </ul>	V1.0 / V5.1
PROFINET from GSD version/GSD revision	V2.3 / -
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 available from the backplane bus	0.9 W
Power loss	
Power loss, typ.	2.8 W
Digital inputs	
Number of digital inputs	16
Digital inputs, parameterizable	No
Source/sink input	Sourcing
Input characteristic curve in accordance with IEC 61131, type 3	Yes
Input voltage	
<ul><li>Rated value (DC)</li></ul>	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	
<ul><li>shielded, max.</li></ul>	1 000 m
<ul><li>unshielded, max.</li></ul>	600 m
Encoder	
Connectable encoders	
2-wire sensor	Yes
<ul> <li>permissible quiescent current (2-wire sensor),</li> </ul>	1.5 mA
max.	
Interrupts/diagnostics/status information	
Diagnostics function	No
Alarms	
Diagnostic alarm	No
Hardware interrupt	No
Diagnoses	
Monitoring the supply voltage	No
Wire-break	No
Short-circuit	No
- 0.101. 0.104.	
Diagnostics indication LFD	
Diagnostics indication LED  • RUN LED	Yes: green LED
• RUN LED	Yes; green LED Yes: red LED
• RUN LED • ERROR LED	Yes; red LED
<ul><li>RUN LED</li><li>ERROR LED</li><li>Monitoring of the supply voltage (PWR-LED)</li></ul>	Yes; red LED No
<ul> <li>RUN LED</li> <li>ERROR LED</li> <li>Monitoring of the supply voltage (PWR-LED)</li> <li>Channel status display</li> </ul>	Yes; red LED No Yes; green LED
<ul> <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> </ul>	Yes; red LED No Yes; green LED No
<ul> <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; red LED No Yes; green LED
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<ul> <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> Potential separation Potential separation channels	Yes; red LED No Yes; green LED No No
RUN LED  ERROR LED  Monitoring of the supply voltage (PWR-LED)  Channel status display  for channel diagnostics  for module diagnostics  Potential separation  Potential separation channels  between the channels	Yes; red LED No Yes; green LED No No
<ul> <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> Potential separation Potential separation channels <ul> <li>between the channels, in groups of</li> </ul>	Yes; red LED No Yes; green LED No No No
RUN LED  ERROR LED  Monitoring of the supply voltage (PWR-LED)  Channel status display  for channel diagnostics  for module diagnostics  Potential separation  Potential separation channels  between the channels  between the channels, in groups of  between the channels and backplane bus	Yes; red LED No Yes; green LED No No
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RUN LED  ERROR LED  Monitoring of the supply voltage (PWR-LED)  Channel status display  for channel diagnostics  for module diagnostics  Potential separation  Potential separation channels  between the channels  between the channels, in groups of  between the channels and backplane bus  Isolation  Isolation tested with  Standards, approvals, certificates	Yes; red LED No Yes; green LED No No No  707 V DC (type test)
<ul> <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> Potential separation Potential separation channels <ul> <li>between the channels</li> <li>between the channels, in groups of</li> <li>between the channels and backplane bus</li> </ul> Isolation Isolation tested with Standards, approvals, certificates Suitable for safety functions Ambient conditions	Yes; red LED No Yes; green LED No No No  707 V DC (type test)
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<ul> <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> Potential separation Potential separation channels <ul> <li>between the channels</li> <li>between the channels, in groups of</li> <li>between the channels and backplane bus</li> </ul> Isolation Isolation tested with Standards, approvals, certificates Suitable for safety functions Ambient conditions Ambient temperature during operation <ul> <li>horizontal installation, min.</li> <li>horizontal installation, max.</li> </ul>	Yes; red LED No Yes; green LED No No No  No Tes
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RUN LED  ERROR LED  Monitoring of the supply voltage (PWR-LED)  Channel status display  for channel diagnostics  for module diagnostics  for module diagnostics  Potential separation  Potential separation channels  between the channels  between the channels and backplane bus  Isolation  Isolation  Isolation tested with  Standards, approvals, certificates  Suitable for safety functions  Ambient conditions  Ambient temperature during operation  horizontal installation, min.  horizontal installation, min.  vertical installation, min.  vertical installation, max.  Altitude during operation relating to sea level  Installation altitude above sea level, max.  Dimensions  Width	Yes; red LED No Yes; green LED No No No  No 16 Yes  707 V DC (type test)  No  0 °C 60 °C 0 °C 40 °C  5 000 m; Restrictions for installation altitudes > 2 000 m, see manual
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Weights
Weight, approx.

last modified:

4/29/2021