

SIMATIC S7-1500, Digital input module, DI 16x24 V DC BA, 16 channels in groups of 16, Input delay typ. 3.2 ms, Input type 3 (IEC 61131) incl. push-in front connector



General information	
Product type designation	DI 16 x 24 V DC BA
HW functional status	FS01
Firmware version	V1.0.0
<ul style="list-style-type: none"> <li>FW update possible</li> </ul>	Yes
Product function	
<ul style="list-style-type: none"> <li>I&amp;M data</li> </ul>	Yes; I&M0 to I&M3
Engineering with	
<ul style="list-style-type: none"> <li>STEP 7 TIA Portal configurable/integrated as of version</li> </ul>	V13 / V13
<ul style="list-style-type: none"> <li>STEP 7 configurable/integrated as of version</li> </ul>	V5.5 SP3 / -
<ul style="list-style-type: none"> <li>PROFIBUS as of GSD version/GSD revision</li> </ul>	V1.0 / V5.1
<ul style="list-style-type: none"> <li>PROFINET as of GSD version/GSD revision</li> </ul>	V2.3 / -
Operating mode	
<ul style="list-style-type: none"> <li>DI</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Counter</li> </ul>	No
<ul style="list-style-type: none"> <li>MSI</li> </ul>	Yes
Supply voltage	

Type of supply voltage	DC
Rated value (DC)	24 V
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V

<b>Power</b>	
Power available from the backplane bus	1.05 W

<b>Power loss</b>	
Power loss, typ.	1.8 W

<b>Digital inputs</b>	
Number of digital inputs	16
Digital inputs, parameterizable	No
Source/sink input	P-reading
Input characteristic curve in accordance with IEC 61131, type 3	Yes

<b>Input voltage</b>	
• Type of input voltage	DC
• Rated value (DC)	24 V
• for signal "0"	-30 to +5V
• for signal "1"	+11 to +30V

<b>Input current</b>	
• for signal "1", typ.	2.7 mA

<b>Input delay (for rated value of input voltage)</b>	
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

<b>Cable length</b>	
• 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

Isochronous mode	
Isochronous operation (application synchronized up to terminal)	No
Interrupts/diagnostics/status information	
Diagnostics function	No
Alarms	
• Diagnostic alarm	No
• Hardware interrupt	No
Diagnostic messages	
• 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
Potential separation	
Potential separation channels	
• between the channels	No
• between the channels, in groups of	16
• between the channels and backplane bus	Yes
Isolation	
Isolation tested with	707 V DC (type test)
Ambient conditions	
Ambient temperature during operation	
• horizontal installation, min.	0 °C
• horizontal installation, max.	60 °C
• vertical installation, min.	0 °C
• vertical installation, max.	40 °C
Decentralized operation	
Prioritized startup	Yes
Dimensions	
Width	25 mm
Height	147 mm
Depth	129 mm
Weights	

Weight, approx.

230 g

Other

Note:

Supplied incl. 40-pole push-in front connectors

**last modified:**

07/17/2018