

SIMATIC S7-1500, DIGITAL INPUT MODULE DI 16 X 24...125V UC HF, 16 CHANNELS IN GROUPS OF 1; INPUT DELAY 0.05 ... 20MS; INPUT TYPE 3 (IEC 61131); DIAGNOSIS, PROCESSALARMS



General information	
Product type designation	DI 16x24 ... 125VUC HF
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 SP1 / -
<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
Power	

Power available from the backplane bus	1.2 W
<b>Digital inputs</b>	
Number of digital inputs	16
Digital inputs, parameterizable	Yes
m/p-reading	p-reading
Input characteristic curve in accordance with IEC 61131, type 3	Yes; at 24 V DC
<b>Input voltage</b>	
<ul style="list-style-type: none"> <li>Type of input voltage</li> <li>for signal "0"</li> <li>for signal "1"</li> </ul>	AC/DC -5 ... +5 V +11 V DC to +146 V DC
<b>Input current</b>	
<ul style="list-style-type: none"> <li>for signal "1", typ.</li> </ul>	3 mA; at 24 V DC
<b>Input delay (for rated value of input voltage)</b>	
for standard inputs	
<ul style="list-style-type: none"> <li>parameterizable</li> <li>at "0" to "1", min.</li> <li>at "0" to "1", max.</li> <li>at "1" to "0", min.</li> <li>at "1" to "0", max.</li> </ul>	Yes; 0.05 / 0.1 / 0.4 / 1.6 / 3.2 / 12.8 / 20 ms parameterizable with DC, 20 ms fixed with AC 0.05 ms 20 ms 0.05 ms 20 ms
for interrupt inputs	
<ul style="list-style-type: none"> <li>parameterizable</li> </ul>	Yes
for counter/technological functions	
<ul style="list-style-type: none"> <li>parameterizable</li> </ul>	No
<b>Cable length</b>	
<ul style="list-style-type: none"> <li>shielded, max.</li> <li>unshielded, max.</li> </ul>	1 000 m 600 m
<b>Encoder</b>	
Connectable encoders	
<ul style="list-style-type: none"> <li>2-wire sensor</li> </ul>	Yes
<b>Isochronous mode</b>	
Isochronous operation (application synchronized up to terminal)	No
<b>Interrupts/diagnostics/status information</b>	
Diagnostics	Yes
<b>Alarms</b>	
<ul style="list-style-type: none"> <li>Diagnostic alarm</li> <li>Hardware interrupt</li> </ul>	Yes Yes
<b>Diagnostic messages</b>	
<ul style="list-style-type: none"> <li>Monitoring the supply voltage</li> </ul>	No

• Wire-break	Yes; To I < 550 µA
• Short-circuit	No
<b>Diagnostics indication LED</b>	
• 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	Yes; Red LED
• for module diagnostics	Yes; Red LED

### Potential separation

<b>Potential separation channels</b>	
• between the channels	Yes
• between the channels, in groups of	1
• between the channels and backplane bus	Yes

### Permissible potential difference

between different circuits	146 V DC/132 V AC
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### Isolation

Isolation tested with	1 200 V DC
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### Ambient conditions

<b>Ambient temperature during operation</b>	
• 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
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### Dimensions

Width	35 mm
Height	147 mm
Depth	129 mm

### Weights

Weight, approx.	240 g
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**last modified:** 09.04.2016