



SIMATIC S7-1500, digital input module DI 16x 24...125 V UC HF, 16 channels in groups of 1; input delay 0.05..20 ms; Input type 3 (IEC 61131); Diagnostics, hardware interrupts: Front connector (screw terminals or push-in) to be ordered separately

General information	
Product type designation	DI 16x24 ... 125 V UC 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
<ul style="list-style-type: none"> <li>Isochronous mode</li> </ul>	No
<ul style="list-style-type: none"> <li>Prioritized startup</li> </ul>	Yes
Engineering with	
<ul style="list-style-type: none"> <li>STEP 7 TIA Portal configurable/integrated from version</li> </ul>	V13 SP1 / -
<ul style="list-style-type: none"> <li>STEP 7 configurable/integrated from version</li> </ul>	V5.5 SP3 / -
<ul style="list-style-type: none"> <li>PROFIBUS from GSD version/GSD revision</li> </ul>	V1.0 / V5.1
<ul style="list-style-type: none"> <li>PROFINET from 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>Oversampling</li> </ul>	No
<ul style="list-style-type: none"> <li>MSI</li> </ul>	Yes
Power	
Power available from the backplane bus	1.2 W
Power loss	
Power loss, typ.	2.2 W; At 24 V DC; 6.0 W at 125 V AC
Digital inputs	
Number of digital inputs	16
Digital inputs, parameterizable	Yes
Source/sink input	Yes
Input characteristic curve in accordance with IEC 61131, type 3	Yes; At 24 V DC
Input voltage	
<ul style="list-style-type: none"> <li>Rated value (DC)</li> </ul>	24 V; 48 V, 125 V
<ul style="list-style-type: none"> <li>Rated value (AC)</li> </ul>	24 V; 48 V, 125 V (50 - 60 Hz)
<ul style="list-style-type: none"> <li>for signal "0"</li> </ul>	-5 ... +5 V
<ul style="list-style-type: none"> <li>for signal "1"</li> </ul>	+11 ... +146 V
Input current	
<ul style="list-style-type: none"> <li>for signal "1", typ.</li> </ul>	3 mA; At 24 V DC
Input delay (for rated value of input voltage)	
for standard inputs	
<ul style="list-style-type: none"> <li>parameterizable</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
<ul style="list-style-type: none"> <li>at "0" to "1", min.</li> </ul>	0.05 ms

— at "0" to "1", max.	20 ms
— at "1" to "0", min.	0.05 ms
— at "1" to "0", max.	20 ms
<b>for interrupt inputs</b>	
— parameterizable	Yes
<b>for technological functions</b>	
— parameterizable	No
<b>Cable length</b>	
• shielded, max.	1 000 m
• unshielded, max.	600 m
<b>Encoder</b>	
<b>Connectable encoders</b>	
• 2-wire sensor	Yes
— permissible quiescent current (2-wire sensor), max.	1.5 mA
<b>Interrupts/diagnostics/status information</b>	
Diagnostics function	Yes
<b>Alarms</b>	
• Diagnostic alarm	Yes
• Hardware interrupt	Yes
<b>Diagnoses</b>	
• Monitoring the supply voltage	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
<b>Potential separation</b>	
<b>Potential separation channels</b>	
• between the channels	Yes
• between the channels, in groups of	1
• between the channels and backplane bus	Yes
<b>Permissible potential difference</b>	
between different circuits	146 V DC/132 V AC
<b>Isolation</b>	
Isolation tested with	2 000 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.	0 °C
• horizontal installation, max.	60 °C
• vertical installation, min.	0 °C
• vertical installation, max.	40 °C
<b>Dimensions</b>	
Width	35 mm
Height	147 mm
Depth	129 mm
<b>Weights</b>	
Weight, approx.	240 g

**last modified:** 1/15/2021 