

SIMATIC S7-400, DIGITAL INPUT SM 421, GALVANICALLY ISOLATED, 16 DI, 24V DC WITH 0.05 MS INPUT DELAY, ALARM, DIAGNOSTICS



Supply voltage	
Load voltage L+	
• Rated value (DC)	24 V
• permissible range, lower limit (DC)	20.4 V
• permissible range, upper limit (DC)	28.8 V
Input current	
from backplane bus 5 V DC, max.	130 mA
from supply voltage L+, max.	120 mA
Power losses	
Power loss, max.	5 W
Digital inputs	
Number of digital inputs	16
Number of simultaneously controllable inputs	
all mounting positions	
— up to 40 °C, max.	16
— up to 60 °C, max.	16
Input voltage	
• Type of input voltage	DC

<ul style="list-style-type: none"> <li>• Rated value (DC)</li> <li>• for signal "0"</li> <li>• for signal "1"</li> </ul>	24 V -30 to +5 V DC 11 to 30 V DC
<b>Input current</b>	
<ul style="list-style-type: none"> <li>• for signal "1", typ.</li> </ul>	6 mA; 6 to 8 mA
<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> </ul>	Yes 3 µs; 0.05 / 0.1 / 0.5 / 3 ms
<b>Cable length</b>	
<ul style="list-style-type: none"> <li>• Cable length, shielded, max.</li> <li>• Cable length unshielded, max.</li> </ul>	1 000 m; 1000 m/3 ms; 70 m/0.5 ms; 30 m/0.1 ms; 30 m/0.05 ms 600 m; 600 m: 3 ms; 50 m: 0,5 ms; 20 m: 0,1 ms; 20 m: 0,05 ms
<b>Encoder</b>	
<b>Connectable encoders</b>	
<ul style="list-style-type: none"> <li>• 2-wire sensor</li> <li>— Permissible quiescent current (2-wire sensor), max.</li> </ul>	Yes 3 mA
<b>Interrupts/diagnostics/status information</b>	
<b>Alarms</b>	
<ul style="list-style-type: none"> <li>• Diagnostic alarm</li> <li>• Hardware interrupt</li> </ul>	Yes; Parameterizable Yes; Parameterizable
<b>Diagnostic messages</b>	
<ul style="list-style-type: none"> <li>• Diagnostics</li> </ul>	Yes; internal/ external fault
<b>Galvanic isolation</b>	
<b>Galvanic isolation digital inputs</b>	
<ul style="list-style-type: none"> <li>• between the channels, in groups of</li> <li>• between the channels and the backplane bus</li> </ul>	8 Yes
<b>Isolation</b>	
Isolation checked with	500 V DC
<b>Dimensions</b>	
Width	25 mm
Height	290 mm
Depth	210 mm
<b>Weights</b>	
Weight, approx.	600 g
<b>last modified:</b>	01.12.2014