

SIMATIC S7-400, digital input SM 421, isolated 16 DI; 24 V 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 supply voltage L+, max.	120 mA
from backplane bus 5 V DC, max.	130 mA
Power loss	
Power loss, typ.	5 W
Digital inputs	
Number of digital inputs	16
Number of simultaneously controllable inputs	
• Number of simultaneously controllable inputs	16
Input voltage	
• Type of input voltage	DC
• Rated value (DC)	24 V

<ul style="list-style-type: none"> • for signal "0" • for signal "1" 	-30 V DC to +5 V DC 11 V DC to 30 V DC
Input current	
<ul style="list-style-type: none"> • for signal "1", typ. 	6 mA; 6 to 8 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	Yes
— at "0" to "1", min.	3 µs; 0.05 / 0.1 / 0.5 / 3 ms
Cable length	
<ul style="list-style-type: none"> • shielded, max. 	1 000 m; 1 000 m: 3 ms, 70 m: 0.5 ms, 30 m: 0.1 ms, 30 m: 0.05 ms
<ul style="list-style-type: none"> • unshielded, max. 	600 m; 600 m: 3 ms; 50 m: 0,5 ms; 20 m: 0,1 ms; 20 m: 0,05 ms
Encoder	
Connectable encoders	
<ul style="list-style-type: none"> • 2-wire sensor — permissible quiescent current (2-wire sensor), max. 	Yes 3 mA
Interrupts/diagnostics/status information	
Diagnostics function	Yes; Parameterizable
Alarms	
<ul style="list-style-type: none"> • Diagnostic alarm • Hardware interrupt 	Yes; Parameterizable Yes; Parameterizable
Potential separation	
Potential separation digital inputs	
<ul style="list-style-type: none"> • between the channels, in groups of • between the channels and backplane bus 	8 Yes
Isolation	
Isolation tested with	500 V DC
Dimensions	
Width	25 mm
Height	290 mm
Depth	210 mm
Weights	
Weight, approx.	600 g
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