

SIMATIC S7-400, digital input SM 421, isolated 16 DI; UC 24 - 60 V, alarm, diagnostics



Input current	
from backplane bus 5 V DC, max.	150 mA
Power loss	
Power loss, typ.	8 W; 3.5 W (24 V DC); 6.5 W (48 V DC); 8.0 W (60 V DC)
Digital inputs	
Number of digital inputs	16
Number of simultaneously controllable inputs	
• Number of simultaneously controllable inputs	16
Input voltage	
• Type of input voltage	AC/DC
• Rated value (UC)	24 V; 24 V UC to 60 V UC (47 ... 63 Hz)
• for signal "0"	-6 to +6 V DC/ 0 to 5 V AC
• for signal "1"	15 to 72 V DC; -15 to -72 V DC; 15 to 60 V AC
Input current	
• for signal "1", typ.	4 mA; 4 to 10 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	Yes

— Rated value	0.5 ms; 0.5 / 3 / 10 / 20 ms
Encoder connection	
<ul style="list-style-type: none"> • Fixed current limitation for wire-break monitoring, min. • Fixed current limitation for wire-break monitoring, max. 	18 kΩ; 18 kohms: Rated voltage 24 V (15 to 35 V); 39 kohms: Rated voltage 48 V (30 to 60 V) 56 kΩ; Rated voltage 60 V (50 to 72 V)
Cable length	
<ul style="list-style-type: none"> • shielded, max. • unshielded, max. 	1 000 m 600 m; 600 m: 3, 10, 20 ms; 100 m: 0,5 ms
Encoder	
Connectable encoders	
<ul style="list-style-type: none"> • 2-wire sensor — permissible quiescent current (2-wire sensor), max. 	Yes 0.5 mA; 0.5 to 2 mA
Interrupts/diagnostics/status information	
Diagnostics function	Yes; Parameterizable
Alarms	
<ul style="list-style-type: none"> • Diagnostic alarm • Hardware interrupt 	Yes; Parameterizable Yes; Parameterizable
Diagnoses	
<ul style="list-style-type: none"> • Diagnostic information readable • Wire-break 	Yes; possible Yes; I > 0.7 mA
Diagnostics indication LED	
<ul style="list-style-type: none"> • Status indicator digital input (green) • Channel fault indicator F (red) 	Yes No
Potential separation	
Potential separation digital inputs	
<ul style="list-style-type: none"> • between the channels • between the channels, in groups of • between the channels and backplane bus 	Yes 1 Yes
Isolation	
Isolation tested with	1 500 V AC
Dimensions	
Width	25 mm
Height	290 mm
Depth	210 mm
Weights	
Weight, approx.	600 g
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