

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/binary 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
Rated value, DC	24 V
for signal "0"	-30 to +5 V DC
for signal "1"	11 to 30 V DC
Input current	
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	
Cable length, shielded, max.	1000 m ; 1000 m/3 ms; 70 m/0.5 ms; 30 m/0.1 ms; 30 m/0.05 ms
Cable length 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	
2-wire sensor	Yes
Permissible quiescent current (2-wire sensor), max.	3 mA
Interrupts/diagnostics/status information	
Alarms	
Diagnostic alarm	Yes ; Parameterizable
Hardware interrupt	Yes ; Parameterizable
Diagnostic messages	
Diagnostics	Yes ; internal/ external fault
Galvanic isolation	
Galvanic isolation digital inputs	
between the channels, in groups of	8
between the channels and the backplane bus	Yes
Isolation	
Isolation checked with	500 V DC
Dimensions	
Width	25 mm
Height	290 mm
Depth	210 mm
Weight	
Weight, approx.	600 g
Status	Feb 25, 2013