

SIMATIC S7-300, DIGITAL INPUT SM 321, OPTICALLY ISOLATED,
FOR EXPANDED TEMPERATURE RANGE, 16 DI, 24V DC, 20 PIN

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 load voltage L+ (without load), max.	25 mA
from backplane bus 5 V DC, max.	10 mA
Power loss	
Power loss, typ.	3.5 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	
• Rated value (DC)	24 V
• for signal "0"	-30 to +5V
• for signal "1"	13 to 30V
Input current	
• for signal "1", typ.	9 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— at "0" to "1", min.	1.2 ms
— at "0" to "1", max.	4.8 ms
Cable length	
• shielded, max.	1 000 m
• unshielded, max.	600 m
Encoder	
Connectable encoders	
• 2-wire sensor	Yes
— permissible quiescent current (2-wire sensor), max.	1.5 mA

Potential separation	
Potential separation digital inputs	
• between the channels, in groups of	16
• between the channels and backplane bus	Yes; Optocoupler
Isolation	
Isolation tested with	500 V DC
Connection method	
required front connector	20-pin
Dimensions	
Width	40 mm
Height	125 mm
Depth	120 mm
Weights	
Weight, approx.	200 g
last modified:	08/15/2019