



Product Information

SIMATIC S7-300

Digital Input Module SM 321; DI 16 × 120/230 VAC as of Version $\frac{X|2}{3|4}$

New Digital Input Module Available

The S7-300 Digital Input Module SM 321; DI 16 × 120/230 VAC has been added to the S7-300 family. The order number for this module is 6ES7 321-1FH00-0AA0.

This product information includes details about the characteristics and technical specifications of the digital input module SM 321; DI 16 × 120/230 VAC. Refer to the *S7-300 Installation and Hardware Manual* for more information about the S7-300 product family.

You will also learn:

- How to configure digital input module SM 321; DI 16 × 120/230 VAC

Additional Assistance

For assistance in answering technical questions, for training on this product, or for ordering, contact your Siemens distributor or sales office.

Characteristic Features and Technical Specifications of the Digital Input Module SM 321; DI 16 X 120/230 VAC

Order No.

6ES7 321-1FH00-0AA0

Characteristic Features

The digital input module SM 321; DI 16 × 120/230 VAC has the following salient characteristic features:

- 16 input points, isolated in groups of 4
- 120/230 VAC rated input voltage
- Suitable for switches and 2/3/-wire AC proximity switches

Terminal Connection Diagram and Wiring

Figure 1 shows the terminal connection diagram and the wiring diagram for the Digital Input SM321 DI 16 × 120/230 VAC Module.

The detailed technical specifications for this digital input module are shown on the following page.

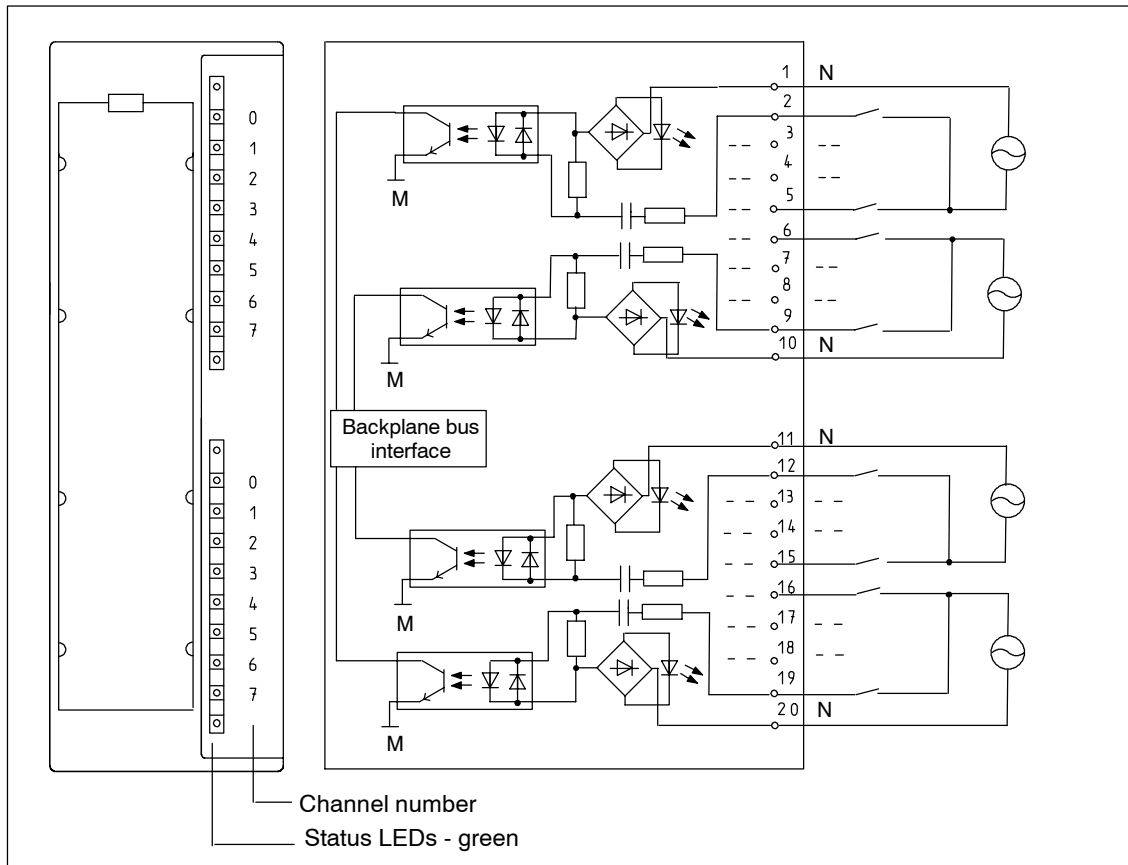


Figure 1 Connection Diagram of Digital Input Module SM 321; DI 16 x 120/230 VAC

Dimensions and Weight		Status, Interrupts, Diagnostics	
Dimensions W × H × D	40 × 125 × 120mm (1.56 × 4.88 × 4.68 in.)	Status Display	Green LED per channel
Weight	Approx. 240 g (8.4 oz.)	Interrupts	
		• Diagnostics interrupt	None
		Diagnostics functions	None
Data for Specific Module		Data for Selecting a Sensor	
Number of inputs	16	Input range (rated values)	
Length of cable		• Voltage	120/230 VAC
• Unshielded	Max. 600 m (654 yd.)	• For “1” signal	79 to 264 V
• Shielded	Max. 1000 m (1090 yd.)	• For “0”	0 to 40 V
		• Frequency range	47 to 63 Hz
		Current at “1” signal	
		• For signal “1”	
		120 V, 60 Hz	Typ. 8.0 mA
		230 V, 50 Hz	Typ. 16.0 mA
		Input delay	
		• From “0” to “1”	Max. 25 ms
		• From “1” to “0”	Max. 25 ms
		Characteristics linearization	to IEC 1131, type 1
		Connection of 2-wire BEROs	Possible
		• Permissible closed-circuit current	Max. 2 mA
Voltage, Currents, Potentials			
Power rated voltage of the electronics L+			
All load voltages must be of same phase			
Number of input points that can be driven simultaneously			
• Horizontal installation up to 60° C	16		
• Vertical installation up to 40° C	16		
Isolation			
• Between channels and backplane bus	Yes		
• Between the channels in groups of	Yes		
Permitted potential difference			
• Between M _{internal} and the inputs	500 VAC		
• Between the inputs of different groups	230 VAC		
Insulation tested with	1500 VAC		
Current Source			
• From the backplane bus	Max. 29 mA		
Power dissipation of the module	Typ. 4.9 W		