## **SIEMENS**

## **Data sheet**

## 6ES7321-1CH20-0AA0



SIMATIC S7-300, Digital input SM 321, isolated, 16 DI, 48-125 V DC, 1x 20-pole

Figure similar

N	
Supply voltage	
Load voltage L+	
Rated value (DC)	48 V
<ul> <li>permissible range, lower limit (DC)</li> </ul>	48 V
<ul> <li>permissible range, upper limit (DC)</li> </ul>	125 V
Input current	
from backplane bus 5 V DC, max.	40 mA
Power loss	
Power loss, typ.	4.3 W
Digital inputs	
Number of digital inputs	16
Input characteristic curve in accordance with IEC 61131, type 1	Yes
Number of simultaneously controllable inputs	
horizontal installation	
— up to 40 °C, max.	8
— up to 60 °C, max.	8; 6 to Ue 146 V
vertical installation	
— up to 40 °C, max.	8
Input voltage	
<ul> <li>Type of input voltage</li> </ul>	DC
<ul> <li>Rated value (DC)</li> </ul>	48 V; 48 V DC to 125 V DC
• for signal "0"	-146 V DC to +15 V DC
● for signal "1"	30 V DC to 146 V DC
Input current	
● for signal "1", typ.	3.5 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	No
— at "0" to "1", min.	0.1 ms
— at "0" to "1", max.	3.5 ms
— at "1" to "0", min.	0.7 ms
— at "1" to "0", max.	3 ms
Cable length	
• shielded, max.	1 000 m
• unshielded, max.	600 m
Encoder	
Connectable encoders	
• 2-wire sensor	Yes
<ul> <li>permissible quiescent current (2-wire sensor), max.</li> </ul>	1 mA

Interrupts/diagnostics/status information	
Alarms	No
Diagnostics function	No
Alarms	
Diagnostic alarm	No
Hardware interrupt	No
Diagnostics indication LED	
<ul> <li>Group error SF (red)</li> </ul>	No
<ul> <li>Status indicator digital input (green)</li> </ul>	Yes
Potential separation	
Potential separation digital inputs	
<ul> <li>between the channels</li> </ul>	No
<ul> <li>between the channels, in groups of</li> </ul>	8
<ul> <li>between the channels and backplane bus</li> </ul>	Yes; Optocoupler
Isolation	
Isolation tested with	1 500 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:

8/16/2023