

SIMATIC S7, digital input SM 321, isolated, 4 DI; 24 V DC, NAMUR/DIN 19234, for signals from the hazardous area, diagnostics-capable, PTB tested



Figure similar

Supply voltage	
Load voltage L+	
• Rated value (DC)	24 V
• Reverse polarity protection	Yes
Input current	
from load voltage L+ (without load), max.	50 mA
from backplane bus 5 V DC, max.	80 mA
Encoder supply	
Type of output voltage	via the inputs
Power loss	
Power loss, typ.	1.1 W
Digital inputs	
Number of NAMUR inputs	4
Input voltage	
• Rated value (DC)	8.2 V; from internal power circuit supply
Input current	

• on wire-break, max.	0.1 mA
• on short-circuit, max.	8.5 mA
<b>for NAMUR encoders</b>	
— for signal "0"	0.35 to 1.2 mA
— for signal "1"	2.1 to 7 mA
<b>Input delay (for rated value of input voltage)</b>	
• Input frequency (with a time delay of 0.1 ms), max.	2 kHz
<b>for NAMUR inputs</b>	
— parameterizable	Yes; 0.1 / 0.5 / 3 / 15 / 20 ms (plus 0.25 ms preparation time)
<b>Cable length</b>	
• unshielded, max.	200 m
<b>Encoder</b>	
<b>Connectable encoders</b>	
• NAMUR encoder	Yes; Two-wire connection
<b>Interrupts/diagnostics/status information</b>	
Diagnostics function	Yes
<b>Diagnostic messages</b>	
• Diagnostic information readable	Yes
<b>Diagnostics indication LED</b>	
• Group error SF (red)	Yes
• Status indicator digital input (green)	Yes
• Channel fault indicator F (red)	Yes
<b>Ex(i) characteristics</b>	
Module for Ex(i) protection	Yes
<b>Maximum values of input circuits (per channel)</b>	
• Co (permissible external capacity), max.	3 µF
• Io (short-circuit current), max.	14.1 mA
• Lo (permissible external inductivity), max.	100 mH
• Po (power of load), max.	33.7 mW
• Uo (output no-load voltage), max.	10 V
<b>Potential separation</b>	
<b>Potential separation digital inputs</b>	
• Potential separation digital inputs	Yes
• between the channels, in groups of	1
<b>Standards, approvals, certificates</b>	
<b>Use in hazardous areas</b>	
• Type of protection acc. to EN 50020 (CENELEC)	[Ex ib] IIC
• Type of protection acc. to FM	Class II, Division 2, Group A, B, C, D T4

• Test number PTB

Ex-96.D.2094X

#### Ambient conditions

Ambient temperature during operation

• max.

60 °C

#### Connection method

required front connector

20-pin

#### Weights

Weight, approx.

230 g

**last modified:**

08/16/2019