

SIPLUS S7-300 SM 321 4DI NAMUR for medial exposure with conformal coating based on 6ES7321-7RD00-0AB0 . Digital input 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
for NAMUR encoders	
— for signal "0"	0.35 to 1.2 mA
— for signal "1"	2.1 to 7 mA
Input delay (for rated value of input voltage)	
• Input frequency (with a time delay of 0.1 ms), max.	2 kHz
for NAMUR inputs	
— parameterizable	Yes; 0.1 / 0.5 / 3 / 15 / 20 ms (plus 0.25 ms preparation time)
Cable length	
• unshielded, max.	200 m
Encoder	
Connectable encoders	
• NAMUR encoder	Yes; Two-wire connection
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Diagnostic messages	
• Diagnostic information readable	Yes
Diagnostics indication LED	
• Group error SF (red)	Yes
• Status indicator digital input (green)	Yes
• Channel fault indicator F (red)	Yes
Ex(i) characteristics	
Module for Ex(i) protection	Yes
Maximum values of input circuits (per channel)	
• 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
Potential separation	
Potential separation digital inputs	
• Potential separation digital inputs	Yes
• between the channels, in groups of	1
Standards, approvals, certificates	
CE mark	Yes
UL approval	Yes; File E239877
RCM (formerly C-TICK)	Yes
KC approval	Yes

EAC (formerly Gost-R)	Yes
Use in hazardous areas	
<ul style="list-style-type: none"> • ATEX • Test number KEMA 	<p>No</p> <p>10 ATEX 0062X</p>
Ambient conditions	
Ambient temperature during operation	
<ul style="list-style-type: none"> • min. • max. 	<p>0 °C; = Tmin</p> <p>60 °C; = Tmax</p>
Ambient temperature during storage/transportation	
<ul style="list-style-type: none"> • min. • max. 	<p>-40 °C</p> <p>70 °C</p>
Altitude during operation relating to sea level	
<ul style="list-style-type: none"> • Installation altitude above sea level, max. • Ambient air temperature-barometric pressure-altitude 	<p>5 000 m</p> <p>Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)</p>
Relative humidity	
<ul style="list-style-type: none"> • With condensation, tested in accordance with IEC 60068-2-38, max. 	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)
Resistance	
Use in stationary industrial systems	
<ul style="list-style-type: none"> — to biologically active substances according to EN 60721-3-3 — to chemically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 	<p>Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request</p> <p>Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *</p> <p>Yes; Class 3S4 incl. sand, dust, *</p>
Use on ships/at sea	
<ul style="list-style-type: none"> — to biologically active substances according to EN 60721-3-6 — to chemically active substances according to EN 60721-3-6 — to mechanically active substances according to EN 60721-3-6 	<p>Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request</p> <p>Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *</p> <p>Yes; Class 6S3 incl. sand, dust; *</p>
Remark	
<ul style="list-style-type: none"> — Note regarding classification of environmental conditions acc. to EN 60721 	* The supplied plug covers must remain in place over the unused interfaces during operation!
Conformal coating	
<ul style="list-style-type: none"> • Coatings for printed circuit board assemblies acc. to EN 61086 • Military testing according to MIL-I-46058C, Amendment 7 	<p>Yes; Class 2 for high availability</p> <p>Yes; Discoloration of coating possible during service life</p>

- Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A

Yes; Conformal coating, Class A

Connection method

required front connector

20-pin

Weights

Weight, approx.

230 g

last modified:

12/14/2018