

SIPLUS PCS 7 SM 321 16DI for medial exposure with conformal coating based on 6ES7321-7TH00-0AB0 . Digital input "16 DI; 24 V DC, 1x 40-pole," diagnostics-capable, for contacts (wired/ not wired), NAMUR encoder, 3/4-wire BERO, with chatter "monitoring; Pulse" extension, Open-circuit detection Connection IM 153-2 required



Figure similar

Supply voltage	
Load voltage L+	
• Rated value (DC)	24 V
Input current	
from load voltage L+ (without load), max.	100 mA
from backplane bus 5 V DC, max.	100 mA
Power loss	
Power loss, typ.	11 W
Time stamping	
Accuracy	1 ms
Digital inputs	
Number of digital inputs	16
Input characteristic curve in accordance with IEC 61131, type 1	No
Input characteristic curve in accordance with IEC 61131, type 2	Yes

<b>Number of simultaneously controllable inputs</b>	
horizontal installation	
— up to 60 °C, max.	16
vertical installation	
— up to 40 °C, max.	16
<b>Input voltage</b>	
• Type of input voltage	DC
• Rated value (DC)	8.2 V; 8.2V/18V
<b>Input current</b>	
• for signal "1", typ.	10 mA; for NAMUR: 2.1 to 7 mA, for 10k ohm/47k ohm contact: typical 10mA, for 4 wire BEROs: typical 10 mA
<b>Input delay (for rated value of input voltage)</b>	
for standard inputs	
— at "0" to "1", min.	2.5 ms
— at "0" to "1", max.	3.5 ms
— at "1" to "0", min.	2.5 ms
— at "1" to "0", max.	3.5 ms
<b>Cable length</b>	
• shielded, max.	400 m; max. 200m with 8.2 V sensor, max. 400m with 18 V sensor
• unshielded, max.	Not permitted
<b>Interrupts/diagnostics/status information</b>	
Diagnostics function	Yes
<b>Alarms</b>	
• Diagnostic alarm	Yes
• Hardware interrupt	Yes
<b>Diagnostic messages</b>	
• Wire-break	Yes
<b>Diagnostics indication LED</b>	
• Group error SF (red)	Yes
• Status indicator digital input (green)	Yes
<b>Potential separation</b>	
Potential separation digital inputs	
• between the channels	Yes
• between the channels, in groups of	8
• between the channels and backplane bus	Yes
<b>Permissible potential difference</b>	
between different circuits	75 V DC/60 V AC
<b>Isolation</b>	
Isolation tested with	600 V DC

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	
• ATEX	Yes
Ambient conditions	
Ambient temperature during operation	
• min.	0 °C
• max.	60 °C
• At cold restart, min.	0 °C
Ambient temperature during storage/transportation	
• min.	-40 °C
• max.	70 °C
Altitude during operation relating to sea level	
• Installation altitude above sea level, max.	5 000 m
• Ambient air temperature-barometric pressure-altitude	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)
Relative humidity	
• 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	
— to biologically active substances according to EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
— to chemically active substances according to EN 60721-3-3	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
— to mechanically active substances according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust, *
Use on ships/at sea	
— to biologically active substances according to EN 60721-3-6	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request
— to chemically active substances according to EN 60721-3-6	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
— to mechanically active substances according to EN 60721-3-6	Yes; Class 6S3 incl. sand, dust; *
Remark	
— 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

- Coatings for printed circuit board assemblies acc. to EN 61086
- Military testing according to MIL-I-46058C, Amendment 7
- Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A

Yes; Class 2 for high availability

Yes; Discoloration of coating possible during service life

Yes; Conformal coating, Class A

### Connection method

required front connector

40-pin

### Dimensions

Width

40 mm

Height

125 mm

Depth

120 mm

**last modified:**

12/14/2018