

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

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
Number of simultaneously controllable inputs	
horizontal installation	
— up to 60 °C, max.	16
vertical installation	
— up to 40 °C, max.	16
Input voltage	
• Type of input voltage	DC
• Rated value (DC)	8.2 V; 8.2V/18V
Input current	
• 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
Input delay (for rated value of input voltage)	
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
Cable length	
• shielded, max.	400 m; max. 200m with 8.2 V sensor, max. 400m with 18 V sensor
• unshielded, max.	Not permitted
Interrupts/diagnostics/status information	
Diagnostic functions	Yes
Alarms	
• Diagnostic alarm	Yes
• Hardware interrupt	Yes
Diagnostic messages	
• Wire-break	Yes
Diagnostics indication LED	
• Group error SF (red)	Yes
• Status indicator digital input (green)	Yes
Potential separation	
Potential separation digital inputs	
• between the channels	Yes
• between the channels, in groups of	8
• between the channels and backplane bus	Yes
Permissible potential difference	
between different circuits	75 V DC/60 V AC
Isolation	
Isolation tested with	600 V DC
Standards, approvals, certificates	
CE mark	Yes
UL approval	Yes; File E239877
FM approval	Yes; CofC 3028431
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 in bedewed state), horizontal installation
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; *
from supply voltage 1L+	
— Note regarding classification of environmental conditions acc. to EN 60721	* The supplied plug covers must remain in place over the unused interfaces during operation!
Connection method	
required front connector	40-pin
Dimensions	
Width	40 mm
Height	125 mm
Depth	120 mm
last modified:	05/16/2018