

SIPLUS S7-300 SM321 - 40-POLE -40 ... +70 DGR C WITH
CONFORMAL COATING CONFORMITY TO EN50155 T1 CAT 1 CL
A/B BASED ON 6ES7321-1BL00-0AA0 . DIGITAL INPUT
OPTICALLY ISOLATE 32DI, 24 V DC, 1 X 40 PIN



Supply voltage

Load voltage L+

• Rated value (DC)	24 V
• permissible range, lower limit (DC)	20.4 V
• permissible range, upper limit (DC)	28.8 V

Input current

from backplane bus 5 V DC, max.	15 mA
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Power loss

Power loss, typ.	6.5 W
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Digital inputs

Number of digital inputs	32
Input characteristic curve in accordance with IEC 61131, type 1	Yes

Number of simultaneously controllable inputs

horizontal installation	
— up to 40 °C, max.	32
— up to 60 °C, max.	16; 12 @ > 60 °C

Input voltage

• Type of input voltage • Rated value (DC) • for signal "0" • for signal "1"	DC 24 V -30 to +5V 13 to 30V
Input current	
• for signal "1", typ.	7 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	No
— at "0" to "1", min.	1.2 ms
— at "0" to "1", max.	4.8 ms
— at "1" to "0", min.	1.2 ms
— at "1" to "0", max.	4.8 ms
Cable length	
• shielded, max. • unshielded, max.	1 000 m 600 m
Encoder	
Connectable encoders	
• 2-wire sensor — permissible quiescent current (2-wire sensor), max.	Yes 1.5 mA
Isochronous mode	
Isochronous operation (application synchronized up to terminal)	No
Interrupts/diagnostics/status information	
Diagnostic functions	No
Alarms	
• Diagnostic alarm • Hardware interrupt	No No
Diagnostics indication LED	
• Status indicator digital input (green)	Yes
Potential separation	
Potential separation digital inputs	
• between the channels • between the channels, in groups of • between the channels and backplane bus	No 16 Yes; Optocoupler
Permissible potential difference	
between different circuits	75 V DC/60 V AC
Isolation	
Isolation tested with	500 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
Railway application	
• EN 50155	Yes; T1 Category 1 Class A/B horizontal mounting position
Use in hazardous areas	
• ATEX	Yes
Ambient conditions	
Ambient temperature during operation	
• min.	-40 °C; = Tmin
• max.	70 °C; = Tmax; for use on railway vehicles according to EN50155, the rated temperature range -25 ... +55 °C (T1) or 60 °C @ UL/ULhaz/ATEX/FM use applies
Ambient temperature during storage/transportation	
• min.	-40 °C
• max.	70 °C
Extended ambient conditions	
• relative to ambient temperature-atmospheric pressure-installation altitude	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 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	
— against biologically active substances / conformity with EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!
— against chemically active substances / conformity with EN 60721-3-3	Yes; Class 3C4 (RH < 75%) incl. salt spray according to EN 60068-2-52 (degree of severity 3). The supplied connector covers must remain on the unused interfaces during operation!
— against mechanically active substances / conformity with EN 60721-3-3	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!
Connection method	
required front connector	40-pin
Dimensions	
Width	40 mm
Height	125 mm
Depth	120 mm

Weights

Weight, approx.

260 g

last modified:

10/28/2016