## SIEMENS

## Data sheet

## 6AG1321-1FF10-7AA0

SIPLUS S7-300 SM321 8DI/120/230 -25...+70°C with conformal coating based on 6ES7321-1FF10-0AA0 . Digital input isolated, 8 DI, 120 V/230 V AC, 1x 40-pole, with single rooting/channel



Figure similar

Supply voltage	
Load voltage L1	
<ul> <li>Rated value (AC)</li> </ul>	230 V; 120/230 V AC; all load voltages must have the same phase.
Input current	
from backplane bus 5 V DC, max.	100 mA
Power loss	
Power loss, typ.	4.9 W
Digital inputs	
Number of digital inputs	8
Input characteristic curve in accordance with IEC 61131, type 1	Yes
Number of simultaneously controllable inputs	
horizontal installation	
— up to 60 °C, max.	8; 8 @ > 60 °C
Input voltage	

• Type of input voltage	AC
• Rated value (AC)	120 V; 120/230 V AC (47 63 Hz)
● for signal "0"	0 to 40V
● for signal "1"	79 to 264V
Input current	
● for signal "1", typ.	7.5 mA; (120 V); 17.3 mA (230 V)
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	No
— at "0" to "1", max.	25 ms
— at "1" to "0", max.	25 ms
Cable length	
• shielded, max.	1 000 m
• unshielded, max.	600 m
Encoder	
Connectable encoders	Yes
• 2-wire sensor	2 mA
<ul> <li>permissible quiescent current (2-wire sensor), max.</li> </ul>	ZIIIA
Interrupts/diagnostics/status information	
Alarms	No
Diagnostics function	No
Alarms	
Diagnostic alarm	No
Hardware interrupt	No
Diagnostics indication LED	
• Group error SF (red)	No
<ul> <li>Status indicator digital input (green)</li> </ul>	Yes
Potential separation	
Potential separation digital inputs	
<ul> <li>between the channels</li> </ul>	Yes
<ul> <li>between the channels, in groups of</li> </ul>	1
<ul> <li>between the channels and backplane bus</li> </ul>	Yes; Optocoupler
Isolation Isolation tested with	1 500 V AC
	1 300 V AG
Standards, approvals, certificates	
CE mark	Yes
UL approval	Yes; File E239877
RCM (formerly C-TICK)	Yes
KC approval	Yes

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EAC (formerly Gost-R)	Yes
Ambient conditions	
Ambient temperature during operation	
● min.	-25 °C
• max.	70 °C; = Tmax; 60 °C @ UL/cUL, ATEX and FM use
Ambient temperature during storage/transportation	
• min.	-40 °C
• max.	70 °C
Altitude during operation relating to sea level	
<ul> <li>Installation altitude above sea level, max.</li> </ul>	5 000 m
<ul> <li>Ambient air temperature-barometric pressure- altitude</li> </ul>	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	
<ul> <li>With condensation, tested in accordance with IEC 60068-2-38, max.</li> </ul>	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)
Resistance	
Use in stationary industrial systems	
<ul> <li>to biologically active substances according to EN 60721-3-3</li> </ul>	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
<ul> <li>— to chemically active substances according to EN 60721-3-3</li> </ul>	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2- 52 (severity degree 3); *
<ul> <li>— to mechanically active substances according to EN 60721-3-3</li> </ul>	Yes; Class 3S4 incl. sand, dust, *
Use on ships/at sea	
<ul> <li>— to biologically active substances according to EN 60721-3-6</li> </ul>	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request
<ul> <li>— to chemically active substances according to EN 60721-3-6</li> </ul>	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2- 52 (severity degree 3); *
<ul> <li>— to mechanically active substances according to EN 60721-3-6</li> </ul>	Yes; Class 6S3 incl. sand, dust; *
Usage in industrial process technology	
<ul> <li>Against chemically active substances acc. to EN 60654-4</li> </ul>	Yes; Class 3 (excluding trichlorethylene)
<ul> <li>Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04</li> </ul>	Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)
Remark	
<ul> <li>Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04</li> </ul>	* The supplied plug covers must remain in place over the unused interfaces during operation!
Connection method	
required front connector	40-pin

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Dimensions	
Width	40 mm
Height	125 mm
Depth	120 mm
Weights	
Weight, approx.	240 g
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