



Figure similar

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

General information	
based on	<a href="#">6ES7321-1FF10-0AA0</a>
Product function	
<ul style="list-style-type: none"> <li>• Isochronous mode</li> </ul>	No
Supply voltage	
Load voltage L1	
<ul style="list-style-type: none"> <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	
<ul style="list-style-type: none"> <li>• Type of input voltage</li> <li>• Rated value (AC)</li> <li>• for signal "0"</li> <li>• for signal "1"</li> </ul>	AC 120 V; 120/230 V AC (47 ... 63 Hz) 0 to 40V 79 to 264V
Input current	
<ul style="list-style-type: none"> <li>• for signal "1", typ.</li> </ul>	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	
<ul style="list-style-type: none"> <li>• shielded, max.</li> <li>• unshielded, max.</li> </ul>	1 000 m 600 m
Encoder	
Connectable encoders	
<ul style="list-style-type: none"> <li>• 2-wire sensor</li> <li>— permissible quiescent current (2-wire sensor), max.</li> </ul>	Yes 2 mA
Interrupts/diagnostics/status information	
Alarms	No

Diagnostics function	No
<b>Alarms</b>	
• Diagnostic alarm	No
• Hardware interrupt	No
<b>Diagnostics indication LED</b>	
• Group error SF (red)	No
• Status indicator digital input (green)	Yes
<b>Potential separation</b>	
<b>Potential separation digital inputs</b>	
• between the channels	Yes
• between the channels, in groups of	1
• between the channels and backplane bus	Yes; Optocoupler
<b>Isolation</b>	
Isolation tested with	1 500 V AC
<b>Standards, approvals, certificates</b>	
CE mark	Yes
UL approval	Yes; File E239877
RCM (formerly C-TICK)	Yes
KC approval	Yes
EAC (formerly Gost-R)	Yes
<b>Ambient conditions</b>	
<b>Ambient temperature during operation</b>	
• min.	-25 °C
• max.	70 °C; = Tmax; 60 °C @ UL/cUL, ATEX and FM use
<b>Ambient temperature during storage/transportation</b>	
• min.	-40 °C
• max.	70 °C
<b>Altitude during operation relating to sea level</b>	
• 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)
<b>Relative humidity</b>	
• With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)
<b>Resistance</b>	
<b>Use in stationary industrial systems</b>	
— 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, *
<b>Use on ships/at sea</b>	
— 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; *
<b>Usage in industrial process technology</b>	
— Against chemically active substances acc. to EN 60654-4	Yes; Class 3 (excluding trichlorethylene)
— Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04	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)
<b>Remark</b>	
— Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04	* The supplied plug covers must remain in place over the unused interfaces during operation!
<b>Connection method</b>	
required front connector	40-pin
<b>Dimensions</b>	

Width	40 mm
Height	125 mm
Depth	120 mm
<b>Weights</b>	
Weight, approx.	240 g
<b>Classifications</b>	

	Version	Classification
eClass	14	27-24-22-04
eClass	12	27-24-22-04
eClass	9.1	27-24-22-04
eClass	9	27-24-22-04
eClass	8	27-24-22-04
eClass	7.1	27-24-22-04
eClass	6	27-24-22-04
ETIM	10	EC001419
ETIM	9	EC001419
ETIM	8	EC001419
ETIM	7	EC001419
IDEA	4	3566
UNSPSC	15	32-15-17-05

**Approvals / Certificates**

**General Product Approval**

[Manufacturer Declaration](#)



[China RoHS](#)



**EMV**



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