## **SIEMENS**

## Data sheet

## 6AG1322-1HH01-2AA0

SIPLUS S7-300 SM 322-20-pole -40...+70°C with conformal coating Conformity with EN 50155 T1 Kat 1 KI A/B based on 6ES7322-1HH01-0AA0 . Digital output optically isolated 16 DO, Relay contacts



Figure similar

Supply voltage	
Load voltage L+	
• Rated value (DC)	120 V
Load voltage L1	
<ul> <li>Rated value (AC)</li> </ul>	230 V
Input current	
from supply voltage L+, max.	250 mA
from backplane bus 5 V DC, max.	100 mA
Power loss	
Power loss, typ.	4.5 W
Digital outputs	
Number of digital outputs	16; Relays
Switching capacity of the outputs	
● on lamp load, max.	50 W; 230 V AC
Output current	
<ul> <li>for signal "1" rated value</li> </ul>	2 A

for signal "1" minimum load current	10 mA
Switching frequency	
• with resistive load, max.	1 Hz
<ul> <li>with inductive load, max.</li> </ul>	0.5 Hz
<ul> <li>on lamp load, max.</li> </ul>	1 Hz
• mechanical, max.	10 Hz
Total current of the outputs (per group)	
horizontal installation	
— up to 60 °C, max.	8 A
vertical installation	
— up to 40 °C, max.	8 A
Relay outputs	
<ul> <li>Rated supply voltage of relay coil L+ (DC)</li> </ul>	24 V
<ul> <li>Number of operating cycles, max.</li> </ul>	100 000; 50 000 (24 V DC, at 2 A); 700 000 (120 V AC, at 2 A); 100 000 (230 V AC, at 2 A)
Switching capacity of contacts	
— with inductive load, max.	2 A; 2 A (230 V AC), 2 A (24 V DC)
— with resistive load, max.	2 A; 2 A (230 V AC), 2 A (24 V DC)
Cable length	
<ul> <li>shielded, max.</li> </ul>	1 000 m
<ul> <li>unshielded, max.</li> </ul>	600 m
Interrupts/diagnostics/status information Diagnostics function	No
Alarms	NU
Alams	
Diagnostic alarm	No
Diagnostic alarm	No
Diagnostic messages	
<ul><li>Diagnostic messages</li><li>Wire-break</li></ul>	No
Diagnostic messages • Wire-break • Short-circuit	No
Diagnostic messages • Wire-break • Short-circuit • Fuse blown	No No No
Diagnostic messages • Wire-break • Short-circuit • Fuse blown • missing load voltage	No
Diagnostic messages • Wire-break • Short-circuit • Fuse blown • missing load voltage Diagnostics indication LED	No No No
Diagnostic messages • Wire-break • Short-circuit • Fuse blown • missing load voltage Diagnostics indication LED • Rated load voltage PWR (green)	No No No No
Diagnostic messages • Wire-break • Short-circuit • Fuse blown • missing load voltage Diagnostics indication LED • Rated load voltage PWR (green) • Fuse OK FSG (green)	No No No No No No
Diagnostic messages • Wire-break • Short-circuit • Fuse blown • missing load voltage Diagnostics indication LED • Rated load voltage PWR (green)	No No No No
Diagnostic messages      Wire-break      Short-circuit      Fuse blown      missing load voltage  Diagnostics indication LED      Rated load voltage PWR (green)      Fuse OK FSG (green)      Status indicator digital output (green)  Potential separation	No No No No No No
Diagnostic messages • Wire-break • Short-circuit • Fuse blown • missing load voltage Diagnostics indication LED • Rated load voltage PWR (green) • Fuse OK FSG (green) • Status indicator digital output (green) Potential separation digital outputs	No No No No No Yes
Diagnostic messages         • Wire-break         • Short-circuit         • Fuse blown         • missing load voltage         Diagnostics indication LED         • Rated load voltage PWR (green)         • Fuse OK FSG (green)         • Status indicator digital output (green)         • Dotential separation digital outputs         • between the channels	No No No No No Yes
Diagnostic messages      Wire-break      Short-circuit      Fuse blown      missing load voltage  Diagnostics indication LED      Rated load voltage PWR (green)      Fuse OK FSG (green)      Status indicator digital output (green)      Status indicator digital output (green)  Potential separation Potential separation digital outputs      between the channels      between the channels, in groups of	No No No No No Yes Yes 8
Diagnostic messages         • Wire-break         • Short-circuit         • Fuse blown         • missing load voltage         Diagnostics indication LED         • Rated load voltage PWR (green)         • Fuse OK FSG (green)         • Status indicator digital output (green)         • Dotential separation         Potential separation digital outputs         • between the channels	No No No No No Yes
Diagnostic messages      Wire-break      Short-circuit      Fuse blown      missing load voltage  Diagnostics indication LED      Rated load voltage PWR (green)      Fuse OK FSG (green)      Status indicator digital output (green)  Potential separation Potential separation digital outputs      between the channels      between the channels, in groups of	No No No No No Yes Yes 8

Standards, approvals, certificates	
CE mark	Yes
UL approval	Yes; File E239877
RCM (formerly C-TICK)	Yes
KC approval	Yes
EAC (formerly Gost-R)	Yes
Railway application	
• EN 50155	Yes; Sections 4, 5 and 12; no further agreements apply; T1, Category 1, Class A/B, EN 50155:2007

Ambient conditions		
Ambient conditions Ambient temperature during operation		
• min.	-40 °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>	2 000 m	
Ambient air temperature-barometric pressure- altitude	Tmin Tmax at 1 140 hPa 795 hPa (-1 000 m +2 000 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 land craft, rail vehicles and special-purpose vehicles		
<ul> <li>— to biologically active substances according to EN 60721-3-5</li> </ul>	Yes; Class 5B2 mold, fungus and dry rot spores (with the exception of fauna); Class 5B3 on request	
<ul> <li>to chemically active substances according to EN 60721-3-5</li> </ul>	Yes; Class 5C3 (RH < 75 %) incl. salt spray acc. to EN 50155 (ST2); *	
<ul> <li>— to mechanically active substances according to EN 60721-3-5</li> </ul>	Yes; Class 5S3 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); *	

— to mechanically active substances according to EN 60721-3-6	Yes; Class 6S3 incl. sand, dust; *
Remark	
<ul> <li>— Note regarding classification of environmental conditions acc. to EN 60721</li> </ul>	* The supplied plug covers must remain in place over the unused interfaces during operation!
Connection method	
required front connector	20-pin
Dimensions	
Width	40 mm
Height	125 mm
Depth	120 mm
Weights	
Weight, approx.	250 g