## **SIEMENS**

## **Data sheet**

## 6AG1222-1HH32-4XB0



SIPLUS S7-1200 SM 1222 16DQ RLY based on 6ES7222-1HH32-0XB0 with conformal coating, -20...+60 °C, digital output 16 DQ, relay 2 A

Figure similar

General information	
Product type designation	SM 1222, DQ 16x relay/2 A
Supply voltage	
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.	135 mA
Digital outputs	
<ul> <li>from load voltage L+, max.</li> </ul>	11 mA/relay coil
Power loss	
Power loss, typ.	8.5 W
Digital outputs	
Number of digital outputs	16
<ul><li>in groups of</li></ul>	1
Short-circuit protection	No; to be provided externally
Switching capacity of the outputs	
<ul> <li>with resistive load, max.</li> </ul>	2 A
• on lamp load, max.	30 W with DC, 200 W with AC
Output voltage	
<ul> <li>Rated value (DC)</li> </ul>	5 V DC to 30 V DC
Rated value (AC)	5 V AC to 250 V AC
Output current	
● for signal "1" rated value	2 A
Output delay with resistive load	
● "0" to "1", max.	10 ms
• "1" to "0", max.	10 ms
Total current of the outputs (per group)	
horizontal installation	
— up to 50 °C, max.	10 A; Current per mass
Relay outputs	
<ul> <li>Number of relay outputs</li> </ul>	16
<ul> <li>Rated supply voltage of relay coil L+ (DC)</li> </ul>	24 V
Number of operating cycles, max.	mechanically 10 million, at rated load voltage 100 000
Switching capacity of contacts	
<ul><li>— with inductive load, max.</li></ul>	2 A
— on lamp load, max.	30 W with DC, 200 W with AC
— with resistive load, max.	2 A
Cable length	

• shielded, max.	500 m
• unshielded, max.	150 m
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	V
Diagnostic alarm	Yes
Diagnoses	Voc
Monitoring the supply voltage     Diagnostics indication LED	Yes
for status of the outputs	Yes
• for maintenance	Yes
Potential separation	
Potential separation digital outputs	
between the channels	Relay, dry contact
between the channels, in groups of	4
between the channels and backplane bus	1 500 V AC for 1 minute
Permissible potential difference	
between different circuits	750 V AC for 1 minute
Degree and class of protection	
IP degree of protection	IP20
Ambient conditions	
Free fall	
• Fall height, max.	0.3 m; five times, in product package
Ambient temperature during operation	or m, mo amos, m product pastage
• min.	-20 °C; = Tmin (incl. condensation/frost); start-up @ 0 °C
• max.	60 °C; = Tmax
At cold restart, min.	0 °C
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
<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
ailitude	(Tmax - 10 K) at 735 ft a 656 ft a (12 666 ft 13 566 ft) // Tfillin
	2 000 m max. 132 V AC
Relative humidity	
With condensation, tested in accordance with IEC	100 %; RH incl. condensation/frost (no commissioning under
60068-2-38, max. Resistance	condensation conditions)
Coolants and lubricants	
Resistant to commercially available coolants	Yes; Incl. diesel and oil droplets in the air
and lubricants	1 50, mar. alooor and on drophoto in the all
Use in stationary industrial systems	
— to biologically active substances according to	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of
EN 60721-3-3	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); *
— to mechanically active substances according to	Yes; Class 3S4 incl. sand, dust, *
EN 60721-3-3	
Use on ships/at sea	Veg. Class 6D2 mold and francial angree (avaluation forms). Olers 6D2
<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	
Against chemically active substances acc. to EN 60654-4	Yes; Class 3 (excluding trichlorethylene)
<ul> <li>Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-</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);
71.04	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!	
Conformal coating		
<ul> <li>Coatings for printed circuit board assemblies acc. to EN 61086</li> </ul>	Yes; Class 2 for high reliability	
<ul> <li>Protection against fouling acc. to EN 60664-3</li> </ul>	Yes; Type 1 protection	
<ul> <li>Military testing according to MIL-I-46058C, Amendment 7</li> </ul>	Yes; Discoloration of coating possible during service life	
<ul> <li>Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A</li> </ul>	Yes; Conformal coating, Class A	
connection method / header		
required front connector	Yes	
Mechanics/material		
Enclosure material (front)		
<ul><li>Plastic</li></ul>	Yes	
Dimensions		
Width	45 mm	
Height	100 mm	
Depth	75 mm	
Weights		
Weight, approx.	260 g	

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last modified: