SIEMENS

Data sheet

6AG1221-1BF32-4XB0



SIPLUS S7-1200 SM 1221 8DI based on 6ES7221-1BF32-0XB0 with conformal coating, -20...+60 °C, digital input 8 DI, 24 V DC, sink/source

Figuresimilar

General information	
Product type designation	SM 1221, DI 8x24 V DC
Supply voltage	
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.	105 mA
Digital inputs	
 from load voltage L+ (without load), max. 	4 mA; per channel
output voltage / header	
supply voltage of the transmitters / header	
 product function / supply voltage for transmitters 	Yes
Power loss	
Power loss, typ.	1.5 W
Digital inputs	
Number of digital inputs	8
 in groups of 	2
Input characteristic curve in accordance with IEC 61131, type 1	Yes
Number of simultaneously controllable inputs	
all mounting positions	
— up to 40 °C, max.	8
horizontal installation	
— up to 40 °C, max.	8
— up to 50 °C, max.	8
vertical installation	
— up to 40 °C, max.	8
Input voltage	
 Rated value (DC) 	24 V
● for signal "0"	5 V DC at 1 mA
● for signal "1"	15 V DC at 2.5 mA
Input current	
 for signal "0", max. (permissible quiescent current) 	1 mA
● for signal "1", min.	2.5 mA
 for signal "1", typ. 	4 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	Yes; 0.2 ms, 0.4 ms, 0.8 ms, 1.6 ms, 3.2 ms, 6.4 ms and 12.8 ms, selectable in groups of four

for interrupt inputs — parameterizable Yes Cable length 500 m • unshielded, max. 500 m Interrupts/diagnostics/status information Yes Diagnostics function Yes • Diagnostics function Yes • Diagnostics function Yes • Monitoring the supply voltage Yes • for status of the inputs Yes • for status of the inputs Yes • for status of the inputs Yes • between the channets, in groups of 2 Degree and class of protection IP20 Ambient conditions Free fail • Free fail • Fail height, max. • anal. 0.3 m; five times, in product package Ambient temperature during operation 0 °C • min. -20 °C; = Timax 0 °C • min. -40 °C Timax = 0 40 °C Co • min. -40 °C Timax = 0 40 °C Co • min. -40 °C Timax = 0 40 °C Co Co • instalation attitude above sea level, max. 70 °C Co Co Co Co	
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— to mechanically active substances according to Yes; Class 3S4 incl. sand, dust, *	
EN 60721-3-3	
Use on ships/at sea	
- to biologically active substances according to EN 60721-3-6 Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6 request	
- to chemically active substances according to Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-5	2
EN 60721-3-6 (severity degree 3); * — to mechanically active substances according to EN 60721-3-6 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)	
- Environmental conditions for process, measuring and control systems acc. to ANSI/ISA- Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permiss	ible);
71.04 level LC3 (salt spray) and level LB3 (oil) Remark	
— Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and * The supplied plug covers must remain in place over the unused interfaces during operation!	
ANSI/ISA-71.04	
Conformal coating	

 Coatings for printed circuit board assemblies acc. to EN 61086 	Yes; Class 2 for high reliability
 Protection against fouling acc. to EN 60664-3 	Yes; Type 1 protection
 Military testing according to MIL-I-46058C, Amendment 7 	Yes; Discoloration of coating possible during service life
 Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A 	Yes; Conformal coating, Class A
connection method / header	
required front connector	Yes
Mechanics/material	
Enclosure material (front)	
Plastic	Yes
Dimensions	
Width	45 mm
Height	100 mm
Depth	75 mm
Weights	
Weight, approx.	170 g
last modified:	4/1/2022 🖸