SIEMENS

Data sheet

6AG1332-5HF00-2AB0



SIPLUS S7-300 SM 332 40-pole based on 6ES7332-5HF00-0AB0 with conformal coating, -25...+70 °C, analog output isolated, 8 AQ, U/I; diagnostics; resolution 11/12 bits, 40-pole, removing and inserting possible with active backplane bus

Figuresimilar

Supply voltage		
Load voltage L+		
Rated value (DC)	24 V	
 Reverse polarity protection 	Yes	
Input current		
from load voltage L+ (without load), max.	340 mA	
from backplane bus 5 V DC, max.	100 mA	
Power loss		
Power loss, typ.	6 W	
Analog outputs		
Number of analog outputs	8; 4 @ +70 °C	
Voltage output, short-circuit protection	Yes	
Voltage output, short-circuit current, max.	25 mA	
Current output, no-load voltage, max.	18 V	
Output ranges, voltage		
• 0 to 10 V	Yes	
• 1 V to 5 V	Yes	
• -10 V to +10 V	Yes	
Output ranges, current		
• 0 to 20 mA	Yes	
• -20 mA to +20 mA	Yes	
• 4 mA to 20 mA	Yes	
Load impedance (in rated range of output)		
 with voltage outputs, min. 	1 kΩ	
 with voltage outputs, capacitive load, max. 	1 µF	
 with current outputs, max. 	500 Ω	
 with current outputs, inductive load, max. 	10 mH	
Cable length		
 shielded, max. 	200 m	
Analog value generation for the outputs		
Integration and conversion time/resolution per channel		
 Resolution with overrange (bit including sign), max. 	12 bit; ±10 V, ±20 mA, 4 mA to 20 mA, 1 V to 5 V: 11 bit + sign; 0 V to 10 V, 0 mA to 20 mA: 12 bit	
Conversion time (per channel)	0.8 ms	
Settling time		
 for resistive load 	0.2 ms	
 for capacitive load 	3.3 ms	
 for inductive load 	0.5 ms; 0.5 ms (1 mH); 3.3 ms (10 mH)	

Operational error limit is executed temporalizer range 0.5 %; 40.0 %; 60 < % cor > 60 °C • Voltage, relative to output range, (++) 0.5 %; 40.0 %; 60 < % cor > 60 °C • Voltage, relative to output range, (++) 0.5 %; • Voltage, relative to output range, (++) 0.5 %; • Voltage, relative to output range, (++) 0.5 %; • Voltage, relative to output range, (++) 0.5 %; • Output relative to output range, (++) 0.5 %; • Output relative to output range, (++) 0.5 %; • Output relative to output range, (++) 0.5 %; • Output relative to output range, (++) 0.5 %; • Output relative to output range, (++) 0.5 %; • Output relative to output range, (++) 0.5 %; • Output relative to output range, (++) 0.5 %; • Output relative to output range, (+-) 0.5 %; • Output relative to output range, (+-) 0.5 %; • Output relative to output range, (+-) 0.5 %; • Output relative to output range, (+-) 0.5 %; • Output relative to output range, (+-) 0.5 %; • Output relative to output range, (+-) 0.5 %; • Output relative to output range, (+-) <th>Errors/accuracies</th> <th></th>	Errors/accuracies	
Voltage, relative to ouplur ange, (++) 0.5 %; 40.7 % @ < 0 °C or > 60 °C Ourset, relative to ouplur ange, (+-) 0.4 %; Ourset, relative to ouplur ange, (+-) 0.4 %; Ourset, relative to ouplur ange, (+-) 0.5 %; Ourset, relative to ouplur ange, (+-) 0.5 % Ourset, relative to ouplur ange, (+-) Ourset, relative to ouplur ange, (+-) Ourset, relative to annesset, relative, relative to annesse and the power supply of the electronics Ourset, relative, relative to annesse, relative, rela		
Current, relative to output range, (+) D.8 %, #0.7 % @ <0 °C or > 60 °C Basic error find (operational limb at 25 °C) Voitage, relative to output range, (+) 0.4 %, Current, relative to output range, (+) 0.5 %. Diagnostics function Ves. Parameterizable Atains Diagnostic sinction Yes. Parameterizable Diagnostic sinction Yes. Parameterizable Diagnostic since output range, (+) Os % . Diagnostic since output range, (+) Os % . Diagnostic sinction Yes. Parameterizable Diagnostic since output range, (+) Os % . Output range, (+) Os % . Diagnostic since output range, (+) Os % . Output range, (+) Outp		0.5 %; ±0.6 % @ < 0 °C or > 60 °C
Basic error limit (operational limit at 25 °C) 0.4 % • Voltage, relative to output range, (++) 0.5 % Diagnostic information regarding 0.5 % Diagnostic information regarding 9.5 % Diagnostic information regarding Yes, Parameterizable Diagnostic information regarding Yes, Parameterizable Diagnostic information regarding Yes, Parameterizable Polignostic information regarding Yes • Diagnostic information regarding Yes • Otogenostic information regarding Yes • Diagnostic information regarding Yes • Detween the channels and backplane bus Yes • Detween the channels and the power supply of the electronics Yes • Dotation table 5000 VDC Staduton table 5000 VDC Staduton table Yes		0.6 %; ±0.7 % @ < 0 °C or > 60 °C
Current, relative to output range, (+/-) 0.5 % Interruption output range, (+/-) 0.5 % Interruption output range, (+/-) 0.5 % Interruption output range, (+/-) Diagnostic structure output range, (+/-) Soliton tested with Soliton tested w	Basic error limit (operational limit at 25 °C)	
Interrupted dispositic struction Yes; Parameterizable Atamis Yes; Parameterizable Atamis Yes; Parameterizable Diagnostic struction Yes; Parameterizable Diagnostic struction Yes; Parameterizable Diagnostic struction Yes Diagnostic struction Yes Diagnostic struction Yes Potential separation Yes Potential separation Yes Potential separation analog outputs No • between the channels and backplane bus Yes • between the channels and the power supply of the electronics Yes Isolation Stout the channels and backplane bus Yes Yes U, approval, certificates CE mark CE mark Yes U, approval Yes EAC formerly Gast-R) Yes EAC formerly Gast-R) Yes EAU formerly G	 Voltage, relative to output range, (+/-) 	0.4 %
Disposition Yes; Parameterizable Alarms • Diagnostic information readable Yes Diagnostic information readable Yes Diagnostic information readable Yes Oppositic information readable Yes Oppositic information readable Yes Potential separation analog outputs • Detween the channels and backplane bus • between the channels and backplane bus Yes • Detween the channels and backplane bus Yes • Detween the channels and backplane bus Yes • Detween the channels and backplane bus Yes Isolation 500 V DC Isolation 500 V DC Isolation Yes UL approval Yes CE mark Yes UL approval Yes EAC (tomerly CarCK) Yes Railway application • • EN S0155 No Ambient temperature during strage/transportation • • min. -40 °C • max • • Mather temperature during strage/transportation • <td> Current, relative to output range, (+/-) </td> <td>0.5 %</td>	 Current, relative to output range, (+/-) 	0.5 %
Alams Yes; Parameterizable • Diagnostic information readable Yes • Detential separation analog outputs No • between the channels and backplane bus Yes • CE mark Yes • Lapproval Yes • CE mark Yes • EAC (ormerly Gost-R) Yes • EAC (ormerly Gost-R) Yes • EAX 0121-4 No • EAX 0121-4 No • Mainter temperature during operation ************************************	Interrupts/diagnostics/status information	
• Diagnostic information readable Yes: Parameterizable Diagnostic information readable Yes Diagnostic information readable Yes Option or SF (red) Yes Potential separation No Potential separation analog outputs • between the channels and backplane bus • between the channels and backplane bus Yes • Between the channels and the power supply of the electronics Yes Isolation tested with 500 V DC Standards, sprovals, certificates	Diagnostics function	Yes; Parameterizable
Diagnoses • Diagnoses indication information readable Yes Diagnoses indication iED Yes • Corup error SF (ref) Yes Potential separation analog outputs • • between the channels and backplane bus Yes • between the channels and load voltage L+ Yes • between the channels and load voltage L+ Yes • between the channels and load voltage L+ Yes • between the channels and load voltage L+ Yes • Betation • • Cannels Yes • Detation afficiates • • Cannels Yes • Cannel (formerly C-TICK) Yes • EAC (formerly Gost R) Yes • EAS 50121-4 No • EN \$50155 No Ambient temperature during operation • • min. -25 °C	Alarms	
	Diagnostic alarm	Yes; Parameterizable
Diagnostics indication LED Yes • Group error SF (red) Yes Potential separation analog outputs • between the channels and backplane bus Yes • Detween the channels and backplane bus Yes • between the channels and backplane bus Yes Isolation Standards, approvals, certificates CE mark Yes (U. approval Yes RAW application Yes EAC (formerly C-TLCK) Yes Raliway application • EN S0125 Ambient conditions No Ambient conditions - 40 °C Ambient temperature during operation • min. • installation altitude abox sea level, max. 5000 m • installation altitude abox sea level, max. - 40 °C • Installation altitude abox substances according to EN 60721-33 Yes: Class 382 mold, fungus and dry rot spores (with the exception of EN 60721-33 Use in stationary industrial systems - to class 382	Diagnoses	
	 Diagnostic information readable 	Yes
Potential separation analog outputs Peternial separation analog outputs No eletween the channels and bad voltage L+ Yes eletween the channels and the power supply of the eletronics Yes eletween the channels and the power supply of the eletronics Yes eletronics Solution Isolation Solution Isolation Solution Isolation Solution CE mark Yes UL approval Yes EX GU(formerly Cost-R) Yes EN 50125 No Anbient conditions -25 °C Anbient temperature during storage/transportation -0 °C enal. -25 °C enal. -0 °C enal. -25 °C	Diagnostics indication LED	
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• between the channels and backplate bus • between the channels and backplate bus • between the channels and backplate bus • between the channels and the power supply of the electronics • between the channels and the power supply of the electronics Yes • between the channels and the power supply of the electronics Yes Isolation Solation Isolation Solation Standards, approvals Cef mark CL approval Yes CA (formerly C-TICK) Yes CA (formerly C-TICK) Yes Railway application Yes Immediate temperature during operation Yes Immin -25 °C Immin -0 °C	Potential separation	
• between the channels and backplane bus • between the channels and load voltage L+ • between the channels and the power supply of the electronics Foldation Solation tested with Solation tested with Solation EN 501254 Ambient temperature during operation Imin. Imin. Solation temperature during storage/transportation Imin. Imin. Solation tested with Solation tested with Installation attitude above sea level, max. Ambient temperature during to sea level Installation attitude above sea level, max. Ambient temperature during to sea level Installation attitude above sea level, max. Ambient temperature-barometric pressure- altitude Installation attitude above sea level, max. Ambient temperature-barometric pressure- altitude Installation attitude above sea level, max. Ambient temperature-barometric pressure- altitude Installation attitude above sea level, max. Ambient temperature-barometric pressure- - to biologically active substances according to EN 60721-33 Use on ships/at sea - to biologically active substances according to EN 60721-33 Use on ships/at sea - to biologically active substances according to EN 60721-34 Use, Class GC (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (secrify degree	Potential separation analog outputs	
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• between the channels and the power supply of the electronics Yes Isolation tested with 500 V DC Standards, approval Ves UL approval Yes; File E239877 RCM (formerly C-TICK) Yes KC approval Yes EAC (formerly C-TICK) Yes Raiway application Yes No Yes Raiway application No No No No No No No Ambient temperature during operation - Inin, -25 °C max. 70 °C; = Tmax; 60 °C @ UL/cUL, ATEX and FM use Ambient temperature during storage/transportation - Inin, -40 °C Inin, -25 °C Raitude during operation relating to sea level - Ininin, -20 °C Ininin, -00 °C <td> between the channels and backplane bus </td> <td>Yes</td>	 between the channels and backplane bus 	Yes
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Ambient temperature during operation -25 °C • max. 70 °C; = Tmax; 60 °C @ UL/cUL, ATEX and FM use Ambient temperature during storage/transportation -40 °C • min. -40 °C • max. 70 °C Altitude during operation relating to sea level -40 °C • Installation altitude above sea level, max. 5 000 m • Ambient air temperature-barometric pressure- altitude 5 000 m • With condensation, tested in accordance with IEC 5 000 m 60068-2-38, max. 100 %; RH incl. condensation/frost (no commissioning under condensation conditions) Resistance 100 %; RH incl. condensation/frost (no commissioning under condensation conditions) Use in stationary industrial systems - to biologically active substances according to EN 60721-3-3 - to mechanically 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 biologically 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); * 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 6B3 on request Yes; Class 6C3 (RH < 75 %) incl. salt spray acc.		NO
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EN 60721-3-3fauna); Class 3B3 on request— to chemically active substances according to EN 60721-3-3Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *— to mechanically active substances according to EN 60721-3-3Yes; Class 3S4 incl. sand, dust, *Use on ships/at seaYes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request— to biologically active substances according to EN 60721-3-6Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52		Very Close 2D2 mold fungue and dry retenance (with the susception)
EN 60721-3-3 (severity degree 3); * — to mechanically active substances according to EN 60721-3-3 Yes; Class 3S4 incl. sand, dust, * Use on ships/at sea — to biologically active substances according to EN 60721-3-6 — to chemically 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	EN 60721-3-3	fauna); Class 3B3 on request
EN 60721-3-3 Use on ships/at sea — to biologically active substances according to EN 60721-3-6 — to chemically active substances according to EN 60721-3-6 Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52	EN 60721-3-3	(severity degree 3); *
 to biologically active substances according to EN 60721-3-6 to chemically active substances according to Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 	EN 60721-3-3	Yes; Class 3S4 incl. sand, dust, *
EN 60721-3-6request— to chemically active substances according toYes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52	•	
	EN 60721-3-6	request
	, , , , , , , , , , , , , , , , , , , ,	

 — 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- 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)
Remark	
 — 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!
connection method / header	
required front connector	40-pin
Dimensions	
Width	40 mm
Height	125 mm
Depth	120 mm
Weights	
Weight, approx.	272 g
last modified:	12/18/2020 🖸