Data sheet



SIPLUS S7-300 SM 332 4AO U/I -25...+70°C with conformal coating based on 6ES7332-5HD01-0AB0 . Analog "output SM 332, isolated, ""4 AO," "U/I; diagnostics;"" resolution" 11/12 bits, 20-pole, removing and inserting possible with active backplane bus

Figure similar

Supply voltage		
Load voltage L+		
Rated value (DC)	24 V	
Reverse polarity protection	Yes	
, ,,		
Input current		
from load voltage L+ (without load), max.	240 mA	
from backplane bus 5 V DC, max.	60 mA	
Power loss		
Power loss, typ.	3 W	
Analog outputs		
Number of analog outputs	4	
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	

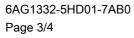
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● 1 V to 5 V	Yes	
• -10 V to +10 V	Yes	
Output ranges, current		
• 0 to 20 mA	Yes	
• -20 mA to +20 mA	Yes	
• 4 mA to 20 mA	Yes	
Load impedance (in rated range of output)		
• with voltage outputs, min.	1 kΩ	
 with voltage outputs, capacitive load, max. 	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), 	12 bit; ±10 V, ±20 mA, 4 mA to 20 mA, 1 V to 5 V: 11 bit + sign; 0	
max.	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)	
Errors/accuracies		
Operational error limit in overall temperature range		
 Voltage, relative to output range, (+/-) 	0.5 %; ±0.6 % @ < 0 °C or > 60 °C	
Current, relative to output range, (+/-)	0.6 %; ±0.7 % @ < 0 °C or > 60 °C	
Basic error limit (operational limit at 25 °C)		
 Voltage, relative to output range, (+/-) 	0.4 %	
 Current, relative to output range, (+/-) 	0.5 %	
Interrupts/diagnostics/status information		
Diagnostics function	Yes; Parameterizable	
Alarms		
Diagnostic alarm	Yes; Parameterizable	
Diagnoses		
Diagnostic information readable	Yes	
Diagnostics indication LED		
Group error SF (red)	Yes	
Potential separation		
Potential separation analog outputs		
• between the channels	No	



 between the channels and backplane bus 	Yes
Between the channels and load voltage L+	Yes
• between the channels and the power supply of	Yes
the electronics	

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Isolation	
Isolation tested with	500 V DC
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 50121-4	No
● EN 50155	No
Ambient conditions	
Ambient temperature during operation	
• min.	-25 °C; = Tmin
• 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	
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)
Relative humidity	
 With condensation, tested in accordance with IEC 60068-2-38, max. 	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)
Resistance	
Use in stationary industrial systems	
 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, *
Use on ships/at sea	
— to biologically active substances according	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class



to EN 60721-3-6



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; *
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	
required front connector	20-pin
Dimensions	
Width	40 mm
Height	125 mm
Depth	120 mm
Weights	
Weight, approx.	220 g

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Ö PNAP

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last modified: