SIEMENS

Data sheet

6AG1135-6HB00-2DA1



SIPLUS ET 200SP AQ 2xU/l high speed based on 6ES7135-6HB00-0DA1 with conformal coating, -40...+60 °C, analog output module, suitable for BU type A0, A1, color code CC00, channel diagnostics, 16-bit, +/-0.3%

General information	
Product type designation	AQ 2xU/I HS
Firmware version	V2.0
usable BaseUnits	BU type A0, A1
Color code for module-specific color identification plate	CC00
Product function	
 I&M data 	Yes; I&M0 to I&M3
 Isochronous mode 	Yes
Operating mode	
Oversampling	Yes; 2 channels per module
• MSO	No
CiR - Configuration in RUN	
Reparameterization possible in RUN	Yes
Calibration possible in RUN	Yes
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes
Input current	
Current consumption (rated value)	45 mA; without load
Power loss	
Power loss, typ.	0.9 W
Address area	
Address space per module	
• Address space per module, max.	4 byte; + 1 byte for QI information (32 bytes in the oversampling operating mode)
Analog outputs	
Number of analog outputs	2
Voltage output, short-circuit protection	Yes
Voltage output, short-circuit current, max.	45 mA
Cycle time (all channels), min.	125 µs
Analog output with oversampling	Yes
 Values per cycle, max. 	16
Resolution, min.	45 μs; (2 channels), 35 μs (1 channel)
Output ranges, voltage	
• 0 to 10 V	Yes; 15 bit
• 1 V to 5 V	Yes; 13 bit
• -5 V to +5 V	Yes; 15 bit incl. sign

Obtain the Section No. 10 with Control 0 + 20 mA Yes; 15 bit 0 + 20 mA Yes; 16 bit inclusion 0 + 20 mA Yes; 16 bit inclusion 0 + rorbage output box-vire connection Yes 0 + for voltage output box-vire connection Yes 0 + for voltage output box-vire connection Yes 0 + of voltage output box vire connection Yes 0 + of voltage output box vire connection Yes 0 + of voltage output box vire connection Yes 0 + of voltage output box vire connection Yes 0 +	• -10 V to +10 V	Yes; 16 bit incl. sign
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• 4 m kt > 20 m ÅYes: 16 bit ind. signConnection of actuationYes:• 6 ro violage output too-wire connectionYes• 6 ro violage output too-wire connectionYes• 10 ro violage output too-wire connectionYes• 10 ro violage output too wire connectionYes• 10 ro violage output too wire connectionYes• 11 ro violage output too yesYes• 11 ro violage ro violage output too yesYes• 11 ro violage rol violage output too yesYes• 11 rol violage rol violage violage (Yes)Yes• 11 rol violage rol violag	· · · · ·	Yes: 15 hit
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Operational error limit in overall temperature range • Voltage, relative to output range, (+/-) 0.4 % Basic error limit (operational limit at 25 °C) • Voltage, relative to output range, (+/-) 0.1 % • Current, relative to output range, (+/-) 0.1 % • Current, relative to output range, (+/-) 0.1 % • Current, relative to output range, (+/-) 0.1 % • Sochronous mode Execution and activation time (TCO), min. Execution and activation time (TCO), min. 70 µs Bus cycle time (TDP), min. 125 µs Interrupts/diagnostics/status Information Yes Substitute values connectable Yes Alarms • • Diagnostic alarm Yes • Monitoring the supply voltage Yes • Wire-break Yes; channel-by-channel, only for output type "current" • Short-circuit Yes • Overflow/underflow Yes Diagnostics indication LED Yes; green PWR LED • Monitoring of the supply voltage (PWR-LED) Yes; green LED • for channel status display Yes; green LED • for channel status display Yes; green LED • for channel diagnostic	Repeat accuracy in steady state at 25 °C (relative to	0.03 %
 Voltage, relative to output range, (+/-) 0.4 % Current, relative to output range, (+/-) 0.4 % Basic error limit (operational limit at 25 °C) Voltage, relative to output range, (+/-) 0.1 % Current, relative to output range, (+/-) 0.1 % Isochronous mode Execution and activation time (TCO), min. 70 µs Bus cycle time (TDP), min. 125 µs Interrupts/diagnostics/status information Diagnostics function Yes Substitute values connectable Yes Diagnostic alarm Yes Diagnostic alarm Yes Corupt error Yes; channel-by-channel, only for output type "current" Short-circuit Yes; channel-by-channel, only for output type "voltage" Group error Yes Diagnostics indicaton LED Versig reen PWR LED Channel status display Yes; green VRL LED Yes; green LED for channel diagnostics Yes; green ILED Yes; gr		
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between the channels No between the channels and backplane bus Yes		
between the channels and backplane bus Yes	•	No
	•	Yes

electronics	
Permissible potential difference	
between different circuits	75 V DC/60 V AC (base isolation)
Isolation	
Isolation tested with	707 V DC (type test)
Ambient conditions	
Ambient temperature during operation	
horizontal installation, min.	-40 °C; = Tmin (incl. condensation/frost)
 horizontal installation, max. 	60 °C; = Tmax; +70 °C with configured empty slots to the left and right of the module
Altitude during operation relating to sea level	
 Installation altitude above sea level, max. Ambient air temperature-barometric pressure- altitude 	5 000 m 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	100 % . DH incl. condensation / fract (no commissioning in hodowed
With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation
Resistance	
Coolants and lubricants — Resistant to commercially available coolants	Yes; Incl. diesel and oil droplets in the air
and lubricants	ו כס, וווס. עוכסבו מוע טוי עוטטופנא ווי נוופ מוו
Use in stationary industrial systems	
 — to biologically active substances according to EN 60721-3-3 — to chemically active substances according to 	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52
EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3	(severity degree 3); * Yes; Class 3S4 incl. sand, dust, *
 Against mechanical environmental conditions acc. to EN 60721-3-3 	Yes; Class 3M8 using the SIPLUS Mounting Kit ET 200SP (6AG1193-6AA00-0AA0)
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
 — to chemically active substances according to EN 60721-3-6 — to mechanically active substances according to 	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); * Yes; Class 6S3 incl. sand, dust; *
EN 60721-3-6 — Against mechanical environmental conditions	Yes; Class 6M4 using the SIPLUS Mounting Kit ET 200SP (6AG1193-
acc. to EN 60721-3-6	6AA00-0AA0)
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!
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 Military testing according to MIL-I-46058C, Amendment 7 	Yes; Type 1 protection 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
Dimensions	
Width	15 mm
Height	73 mm
Depth	58 mm
Weights	31.0
Weight, approx.	31 g
last modified:	10/6/2021 🖸