

SIPLUS ET 200SP AQ 2xI Standard -40 ... +70°C with conformal coating based on 6ES7135-6GB00-0BA1 . Analog output module, AQ 2xI Standard, Pack quantity: 1 unit, suitable for BU type A0, A1, Color code CC00, Module diagnostics, 16 bit



General information	
Product type designation	AQ 2xI ST
Firmware version	
<ul style="list-style-type: none"> FW update possible 	Yes
usable BaseUnits	BU type A0, A1
Color code for module-specific color identification plate	CC00
Product function	
<ul style="list-style-type: none"> I&M data 	Yes; I&M0 to I&M3
<ul style="list-style-type: none"> Output range scalable 	No
Engineering with	
<ul style="list-style-type: none"> PROFIBUS as of GSD version/GSD revision 	GSD Revision 5
<ul style="list-style-type: none"> PROFINET as of GSD version/GSD revision 	GSDML V2.3
Operating mode	
<ul style="list-style-type: none"> Oversampling 	No
<ul style="list-style-type: none"> MSO 	No
CiR – Configuration in RUN	
Reparameterization possible in RUN	Yes

Calibration possible in RUN	No
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, max.	110 mA
Power loss	
Power loss, typ.	1.5 W
Address area	
Address space per module	
<ul style="list-style-type: none"> Address space per module, max. 	4 byte; + 1 byte for QI information
Analog outputs	
Number of analog outputs	2
Cycle time (all channels), min.	1 ms
Analog output with oversampling	No
Output ranges, current	
<ul style="list-style-type: none"> 0 to 20 mA 	Yes; 15 bit
<ul style="list-style-type: none"> -20 mA to +20 mA 	Yes; 16 bit incl. sign
<ul style="list-style-type: none"> 4 mA to 20 mA 	Yes; 14 bit
Connection of actuators	
<ul style="list-style-type: none"> for current output two-wire connection 	Yes
Load impedance (in rated range of output)	
<ul style="list-style-type: none"> with current outputs, max. 	500 Ω
<ul style="list-style-type: none"> with current outputs, inductive load, max. 	1 mH
Destruction limits against externally applied voltages and currents	
<ul style="list-style-type: none"> Voltages at the outputs 	30 V
Cable length	
<ul style="list-style-type: none"> shielded, max. 	1 000 m
Analog value generation for the outputs	
Settling time	
<ul style="list-style-type: none"> for resistive load 	0.1 ms; Typical value
<ul style="list-style-type: none"> for inductive load 	0.5 ms
Errors/accuracies	
Linearity error (relative to output range), (+/-)	0.06 %
Temperature error (relative to output range), (+/-)	0.01 %/K
Crosstalk between the outputs, min.	-50 dB
Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)	0.05 %

Operational error limit in overall temperature range	
• Current, relative to output range, (+/-)	1 %
Basic error limit (operational limit at 25 °C)	
• Current, relative to output range, (+/-)	0.3 %
Isochronous mode	
Isochronous operation (application synchronized up to terminal)	No
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Substitute values connectable	Yes
Alarms	
• Diagnostic alarm	Yes
Diagnostic messages	
• Monitoring the supply voltage	Yes
• Wire-break	Yes
• Group error	Yes
• Overflow/underflow	Yes
Diagnostics indication LED	
• Monitoring of the supply voltage (PWR-LED)	Yes; Green PWR LED
• Channel status display	Yes; Green LED
• for channel diagnostics	No
• for module diagnostics	Yes; green/red DIAG LED
Potential separation	
Potential separation channels	
• between the channels	No
• between the channels and backplane bus	Yes
• between the channels and the power supply of the electronics	Yes
Ambient conditions	
Ambient temperature during operation	
• horizontal installation, min.	-40 °C; = Tmin (incl. condensation/frost)
• horizontal installation, max.	70 °C; = Tmax
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 in bedewed state), horizontal installation

Resistance	
Coolants and lubricants	
— Resistant to commercially available coolants and lubricants	Yes; Incl. diesel and oil droplets in the air
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, *
— Against mechanical environmental conditions acc. to EN 60721-3-3	Yes
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	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; *
— Against mechanical environmental conditions acc. to EN 60721-3-6	Yes
Usage in industrial process technology	
— Against chemically active substances acc. to EN 60654-4	Yes
— Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04	Yes
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 availability
• 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
Dimensions	
Width	15 mm
Height	73 mm

Depth	58 mm
Weights	
Weight, approx.	31 g
last modified:	08/16/2019