

Siemens
EcoTech



SIMATIC ET 200SP HA, analog output module, AQ 4XI HART isol suitable for terminal block K0, L0, color code CC00, channel diagnostics, 16-bit, +/-0.1%

General information

Product type designation	AQ 4xI HART ISOL HA
Firmware version	V1.0
• FW update possible	Yes; The firmware update can take more than 5 minutes.
Color code for module-specific color identification plate	CC40
Product function	
• I&M data	Yes; I&M0 to I&M3
Engineering with	
• STEP 7 TIA Portal configurable/integrated from version	V17
• STEP 7 configurable/integrated from version	V5.6
• PCS 7 configurable/integrated from version	V9.1
• PCS neo can be configured/integrated from version	V3.0
• PROFINET from GSD version/GSD revision	GSDML V2.35
Redundancy	
• Redundancy capability	Yes; see the system manual

CiR - Configuration in RUN

Reparameterization possible in RUN	Yes
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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)	176 mA; At 4x 20 mA with 750 ohm load resistor
Current consumption, max.	223 mA; at 4x 23.5 mA with 750 ohm load resistor

Power loss

Power loss, typ.	3 W; At 4x 20 mA with 750 ohm load resistor
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Address area

Address space per module	
• Address space per module, max.	9 byte; 8 bytes for outputs and 1 byte for QI information
• Address space per module with HART, max.	29 byte; 8 bytes for outputs, 1 byte for QI information, 20 bytes for HART information
• Address space per module with MultiHART, max.	16 byte; 8 bytes for outputs, 1 byte for QI information, 6 bytes for HART information, 1 byte for HART command

Analog outputs

Number of analog outputs	4
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Current output, no-load voltage, max.	22 V
Output ranges, current	
• 0 to 20 mA	Yes; 15 bit
• 4 mA to 20 mA	Yes; 15 bit
Connection of actuators	
• for current output two-wire connection	Yes
Load impedance (in rated range of output)	
• for current outputs, min.	50 Ω
• with current outputs, max.	750 Ω
• with current outputs, inductive load, max.	10 mH
Destruction limits against externally applied voltages and currents	
• Voltages at the outputs	24 V
Cable length	
• shielded, max.	1 000 m; with unshielded cables up to 800 m, remember that (external) EMC loads can cause incorrect measured values
Analog value generation for the outputs	
Settling time	
• for resistive load	1.2 ms; 750 ohm
• for inductive load	1.2 ms
Errors/accuracies	
Linearity error (relative to output range), (+/-)	0.01 %
Temperature error (relative to output range), (+/-)	0.002 %/K
Crosstalk between the outputs, min.	70 dB
Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)	0.02 %
Operational error limit in overall temperature range	
• Current, relative to output range, (+/-)	0.5 %; 0 ... 60 °C: 0.2 %
Basic error limit (operational limit at 25 °C)	
• Current, relative to output range, (+/-)	0.1 %
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
• Diagnostic alarm	Yes
Diagnoses	
• Monitoring the supply voltage	Yes
• Wire-break	Yes; channel by channel
• Short-circuit	Yes
• Overflow/underflow	Yes; channel by channel
Diagnostics indication LED	
• MAINT LED	Yes; Yellow LED
• Monitoring of the supply voltage (PWR-LED)	Yes; green PWR LED
• Channel status display	Yes; green LED
• for channel diagnostics	Yes; red LED
• for module diagnostics	Yes; green/red DIAG LED
Potential separation	
Potential separation channels	
• between the channels	Yes; 125 V AC / 150 V DC (when using terminal blocks with push-in terminals); SELV/PELV (when using terminal blocks with D-SUB)
• between the channels and backplane bus	Yes; 125 V AC / 150 V DC (when using terminal blocks with push-in terminals); SELV/PELV (when using terminal blocks with D-SUB)
• between the channels and the power supply of the electronics	Yes; 125 V AC / 150 V DC (when using terminal blocks with push-in terminals); SELV/PELV (when using terminal blocks with D-SUB)
Permissible potential difference	
between the channels	125 V AC / 150 V DC (when using terminal blocks with push-in terminals); SELV/PELV (when using terminal blocks with D-SUB)
between the channels and supply voltage	125 V AC / 150 V DC (when using terminal blocks with push-in terminals); SELV/PELV (when using terminal blocks with D-SUB)
between the channels and backplane bus	125 V AC / 150 V DC (when using terminal blocks with push-in terminals); SELV/PELV (when using terminal blocks with D-SUB)
Isolation	
tested with	

• between backplane bus and load voltage	3 000 V DC/1 min, type test
• between the channels and load voltage	between the channels 2 100 V DC/1 min, type test (when using terminal blocks with push-in terminals); 1 200 V DC/1 min, type test (when using terminal blocks with D-SUB)
• between the channels and backplane bus	3 000 V DC/1 min, type test
• Between channels	between the channels 4 200 V DC/1 min, type test (when using terminal blocks with push-in terminals); 1 200 V DC/1 min, type test (when using terminal blocks with D-SUB)

Ambient conditions

Ambient temperature during operation

- horizontal installation, min. -40 °C
- horizontal installation, max. 70 °C; Observe derating
- vertical installation, min. -40 °C
- vertical installation, max. 60 °C; Observe derating

Dimensions

Width	22.5 mm
Height	115 mm
Depth	138 mm

Weights

Weight, approx.	165 g
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Classifications

	Version	Classification
eClass	14	27-24-26-01
eClass	12	27-24-26-01
eClass	9.1	27-24-26-01
eClass	9	27-24-26-01
eClass	8	27-24-26-01
eClass	7.1	27-24-26-01
eClass	6	27-24-26-01
ETIM	10	EC001596
ETIM	9	EC001596
ETIM	8	EC001596
ETIM	7	EC001596

Approvals / Certificates

General Product Approval



[Miscellaneous](#)



[China RoHS](#)

[KC](#)



General Product Approval

For use in hazardous locations



[Declaration of Conformity](#)



[CCC-Ex](#)



For use in hazardous locations

Maritime application

[Miscellaneous](#)



[NK / Nippon Kaiji Kyokai](#)

Maritime application

Environment

last modified:

10/23/2025 