

Siemens
EcoTech



SIMATIC ET 200SP HA, analog HART input module, AI 4xI 2-/4-Wire HART isol, suitable for terminal block K0, L0, color code CC01, channel diagnostics, 16-bit, +/- 0.1%,

General information	
Product type designation	AI 4xI 2-/4-wire HART ISOL HA
Firmware version	V1.0
• FW update possible	Yes; The firmware update can take more than 5 minutes.
Usable terminal block	type K0, L0, S0, R0 (see system manual for details)
Color code for module-specific color-coded label	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
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)	184 mA; sensor supply without loads
Current consumption, max.	234 mA; at 1.5 kOhm load on sensor supply
Encoder supply	
Number of outputs	4
Output voltage (DC)	24 V
Output voltage, min.	19.2 V
Short-circuit protection	Yes; Electronic
Output current	
• Rated value	20 mA
• permissible range, lower limit	0 mA
• permissible range, upper limit	23.52 mA
24 V encoder supply	

• 24 V • Short-circuit protection • Output current per channel, max. • Output current per module, max.	Yes Yes 23.5 mA 88 mA
Power loss	
Power loss, typ.	1.8 W
Address area	
Address space per module	
• Address space per module, max.	9 byte; 8 bytes for inputs and 1 byte for QI information
• Address space per module with HART, max.	29 byte; 8 bytes for inputs, 1 byte for QI information, 20 bytes for HART information
• Address space per module with MultiHART, max.	16 byte; 8 bytes for inputs, 1 byte for QI information, 6 bytes for HART information, 1 byte for HART command
Analog inputs	
Number of analog inputs	4
• For current measurement	4
permissible input current for current input (destruction limit), max.	30 mA
Input ranges (rated values), currents	
• 0 to 20 mA — Input resistance (0 to 20 mA)	Yes; 16 bit incl. sign 250 Ω
• 4 mA to 20 mA — Input resistance (4 mA to 20 mA)	Yes; 16 bit incl. sign 250 Ω
Cable length	
• shielded, max.	800 m; with unshielded cables up to 800 m, remember that (external) EMC loads can cause incorrect measured values
Analog value generation for the inputs	
Integration and conversion time/resolution per channel	
• Resolution with overrange (bit including sign), max.	16 bit; 14 bit at 60 Hz (0 ... 10 mA), 16 bit at 10 Hz, 15 bit at 50 Hz and 15 bit at 60 Hz interference suppression
Smoothing of measured values	
• parameterizable	Yes; none, weak, medium, strong, channel-by-channel
Encoder	
Connection of signal encoders	
• for current measurement as 2-wire transducer	Yes
Errors/accuracies	
Linearity error (relative to input range), (+/-)	0.01 %
Temperature error (relative to input range), (+/-)	0.005 %/K
Crosstalk between the inputs, min.	60 dB
Repeat accuracy in steady state at 25 °C (relative to input range), (+/-)	0.05 %
Operational error limit in overall temperature range	
• Current, relative to input range, (+/-)	0.5 %
Basic error limit (operational limit at 25 °C)	
• Current, relative to input range, (+/-)	0.1 %
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
• Diagnostic alarm • Limit value alarm	Yes Yes; two upper and two lower limit values in each case
Diagnoses	
• Monitoring the supply voltage • Wire break • Short-circuit • Overflow/Underflow	Yes Yes; channel by channel Yes; Channel-by-channel, short-circuit of the encoder supply to ground or of an input to the encoder supply Yes; channel by channel
Diagnostics indication LED	
• MAINT LED • Monitoring of the supply voltage (PWR-LED) • Channel status display • for channel diagnostics	Yes; Yellow LED Yes; green PWR LED Yes; green LED 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	
• vertical installation, min.		-40 °C	
• vertical installation, max.		70 °C	
Dimensions			
Width		22.5 mm	
Height		115 mm	
Depth		138 mm	
Weights			
Weight, approx.		163 g	
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](#)



General Product Approval				For use in hazardous locations	
 EG-Konf.	China RoHS	Miscellaneous		Manufacturer Declaration	Declaration of Conformity
For use in hazardous locations				Maritime application	
 IECEX	CCC-Ex	Type Examination Certificate	 UL	Miscellaneous	 ABS
Maritime application				Environment	
 BUREAU VERITAS	 DNV	 LRS	NK / Nippon Kaiji Kyokai	CCS (China Classification Society)	 Siemens EcoTech
Environment					
 EPD					

last modified:

2/11/2026 