Product overview

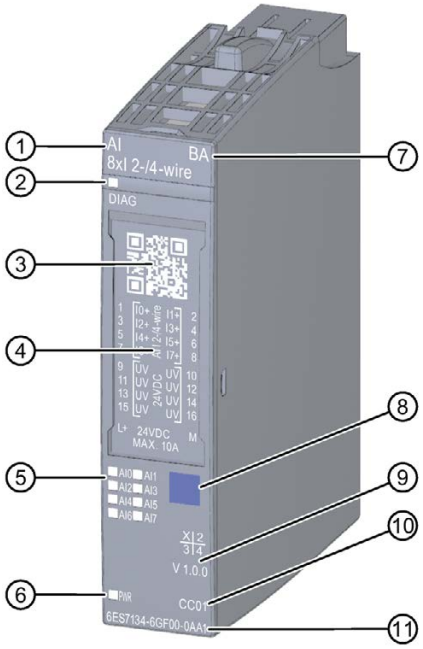
2

2.1 Properties

Article number

6ES7134-6GF00-0AA1

View of the module



① Module type and name
② LED for diagnostics
③ 2D matrix code
④ Wiring diagram
⑤ LEDs for channel status
⑥ LED for supply voltage
⑦ Function class
⑧ Color coding module type
⑨ Function and firmware version
⑩ Color code for selecting the color identification labels
⑪ Article number

Figure 2-1 View of the AI 8×I 2-/4-wire BA module

Properties

The module has the following technical properties:

- Analog input module with 8 inputs (single-ended)
- For 2-wire and 4-wire transducers
- Input ranges for current measurement:
  - 4 to 20 mA, resolution 15 bits
  - 0 to 20 mA, resolution 15 bits
  - ±20 mA, resolution 16 bits including sign
- Cycle time of the module (all channels) 10 ms
- Configurable diagnostics (per module)

The module supports the following functions:

- Firmware update
- I&M identification data
- Reconfiguration in RUN

You can configure the module with STEP 7 (TIA Portal) and with a GSD file.

Accessories

The following accessories must be ordered separately:

- Labeling strips
- Color identification labels
- Reference identification label
- Shield connector

See also

You can find more information on accessories in the ET 200SP distributed I/O system (http://support.automation.siemens.com/WW/view/en/58649293) system manual.

Technical specifications

6

6.1 Technical specifications

Technical specifications of the AI 8×I 2-/4-wire BA

	6ES7134-6GF00-0AA1
Product type designation	ET 200SP, AI 8xI 2-/4-wire Basic
General information	
Firmware version	V1.0
• FW update possible	Yes
Usable BaseUnits	BU type A0, A1
Color code for module-specific color identification label	CC01
Product function	
I&M data	Yes; I&M0 to I&M3
Scalable measuring range	No
Engineering with	
STEP 7 TIA Portal can be configured/integrated as of version	V13 SP1
STEP 7 can be configured/integrated as of version	V5.5 SP3 / -
PROFIBUS as of GSD version/GSD revision	GSD revision 5
PROFINET as of GSD version/GSD revision	V2.3 / -
Operating mode	
Oversampling	No
MSI	No
CiR Configuration in RUN	
Reconfiguration in RUN possible	Yes
Calibration in RUN possible	No
Supply voltage	
Rated value (DC)	24 V
Valid range, low limit (DC)	19.2 V
Valid range, high limit (DC)	28.8 V
Polarity reversal protection	Yes
Input current	
Current consumption, max.	25 mA; without encoder supply

	6ES7134-6GF00-0AA1
Encoder supply	
24 V encoder supply	
24 V	Yes
Short-circuit protection	Yes
Output current, max.	0.7 A; total current of all encoders/channels
Power loss	
Power loss, typ.	0.7 W; without encoder supply voltage
Address area	
Address space per module	
Address space per module, max.	16 bytes
Analog inputs	
Number of analog inputs	8; single-ended
Maximum permitted input current for current input (destruction limit)	50 mA
Cycle time (all channels), min.	1 ms; per channel
Input ranges (rated values), currents	
0 to 20 mA	Yes
Input resistance (0 to 20 mA)	100 Ω; 15 bits
-20 mA to +20 mA	Yes
Input resistance (-20 mA to +20 mA)	100 Ω; 16 bits including sign
4 mA to 20 mA	Yes
Input resistance (4 mA to 20 mA)	100 Ω; 15 bits
Cable length	
Shielded, max.	200 m
Formation of analog values for the inputs	
Integration and conversion time/resolution per channel	
Resolution with overrange (bit including sign), max.	16 bits
Integration time configurable	Yes
Interference voltage suppression for interference frequency f1 in Hz	16.67 / 50 / 60 / 4 800 (16.67 / 50 / 60)
Conversion time (per channel)	ms; 180 / 60 / 50 / 0.625 (67.5 / 22.5 / 18.75)
Measured value smoothing	
Number of steps	4; none; 4/8/16 times
Configurable	Yes
Encoders	
Connection of the signal transmitters	
For voltage measurement	No
For current measurement as 2-wire transducer	Yes
• Load of 2-wire transducer, max.	650 Ω
For current measurement as 4-wire transducer	Yes

	6ES7134-6GF00-0AA1
Errors/accuracies	
Linearity error (in relation to input range), (+/-)	± 0.01%
Temperature error (in relation to input range), (+/-)	0.005%/K
Crosstalk between inputs, min.	50 dB
Repeat accuracy in settled state at 25 °C (in relation to input range), (+/-)	± 0.05%
Operational limit in the entire temperature range	
Current in relation to input range, (+/-)	± 0.5%
Basic error limit (operational limit at 25 °C)	
Current in relation to input range, (+/-)	± 0.3%
Interference voltage suppression for f = n x (f1 +/- 1%), f1 = interference frequency	
Series-mode interference (peak of the interference < rated value of the input range), min.	70 dB; with conversion time 67.5 / 22.5 / 18.75 ms: 40 dB
Isochronous mode	
Isochronous mode (application synchronized up to terminal)	No
Interrupts/diagnostics/status information	
Interrupts	
Diagnostic interrupt	Yes
Limit interrupt	No
Diagnostics alarms	
Diagnostics	Yes
Monitoring of supply voltage	Yes
Wire break	Yes; for 4 to 20 mA
Short-circuit	Yes; encoder supply to ground; module-based
Group error	Yes
Overflow/underflow	Yes
Diagnostics indicator LED	
Monitoring of the supply voltage (PWR LED)	Yes; green LED
Channel status display	Yes; green LED
For channel diagnostics	No
For module diagnostics	Yes; green / red DIAG LED
Electrical isolation	
Electrical isolation of channels	
Between the channels	No
Between the channels and the backplane bus	Yes
Between the channels and the supply voltage of the electronics	No

	6ES7134-6GF00-0AA1
Permitted potential difference	
Between different circuits	75 V DC/60 V AC (basic insulation)
Insulation	
Insulation tested with	707 V DC (type test)
Dimensions	
Width	15 mm
Weights	
Weight, approx.	31 g

Dimension drawing

See the manual ET 200SP BaseUnits
(http://support.automation.siemens.com/WW/view/en/59753521)