6ES7134-6GF00-0AA1

**Data sheet** 



SIMATIC ET 200SP, Analog input module, AI 8XI 2-/4-wire Basic, suitable for BU type A0, A1, Color code CC01, Module diagnostics, 16 bit

| General information  |  |
|--|--|
| Product type designation   | Al 8xl 2-/4-wire BA                            |
| HW functional status   | from FS04                                      |
| Firmware version   |  |
| FW update possible   | Yes  |
| usable BaseUnits   | BU type A0, A1                                 |
| Color code for module-specific color identification plate                  | CC01   |
| Product function   |  |
| <ul><li>I&amp;M data</li></ul>   | Yes; I&M0 to I&M3                              |
| <ul> <li>Isochronous mode</li> </ul>                                       | No   |
| Measuring range scalable   | No   |
| Engineering with   |  |
| <ul> <li>STEP 7 TIA Portal configurable/integrated from version</li> </ul> | V13 SP1  |
| <ul> <li>STEP 7 configurable/integrated from version</li> </ul>            | V5.5 SP3 / -                                   |
| <ul> <li>PROFIBUS from GSD version/GSD revision</li> </ul>                 | One GSD file each, Revision 3 and 5 and higher |
| PROFINET from GSD version/GSD revision                                     | GSDML V2.3                                     |
| Operating mode   |  |
| <ul> <li>Oversampling</li> </ul>   | No   |
| • MSI  | 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.  | 25 mA; without sensor supply                   |
| Encoder supply   |  |
| 24 V encoder supply  |  |
| • 24 V   | Yes  |
| Short-circuit protection   | Yes  |
| <ul> <li>Output current, max.</li> </ul>                                   | 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 byte   |
|---|---|
| Hardware configuration  |   |
| Automatic encoding  | Yes   |
| Mechanical coding element   | Yes   |
| Type of mechanical coding element   | Type A  |
| Selection of BaseUnit for connection variants   |   |
| 1-wire connection   | BU type A0, A1  |
| • 2-wire connection   | BU type A0, A1  |
| 4-wire connection   | BU type A0, A1 + potential distributor module             |
| Analog inputs   |   |
| Number of analog inputs   | 8; Single-ended   |
| For current measurement   | 8   |
| permissible input current for current input (destruction  | 50 mA   |
| limit), max.  |   |
| 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 bit   |
| • -20 mA to +20 mA  | Yes   |
| — Input resistance (-20 mA to +20 mA)   | 100 Ω; 16 bit incl. sign                                  |
| • 4 mA to 20 mA   | Yes   |
| — Input resistance (4 mA to 20 mA)  | 100 Ω; 15 bit   |
| Cable length  | 000   |
| • shielded, max.  | 200 m   |
| Analog value generation for the inputs  |   |
| Integration and conversion time/resolution per channel  |   |
| <ul> <li>Resolution with overrange (bit including sign), max.</li> </ul>  | 16 bit  |
| Integration time, parameterizable   | Yes   |
| <ul> <li>Interference voltage suppression for interference<br/>frequency f1 in Hz</li> </ul>                        | 16.67 / 50 / 60 / 4 800 (16.67 / 50 / 60)                 |
| Conversion time (per channel)   | 180 / 60 / 50 / 0.625 (67.5 / 22.5 / 18.75) ms            |
| Smoothing of measured values  |   |
| Number of smoothing levels  | 4; None; 4/8/16 times                                     |
| parameterizable   | Yes   |
| Encoder   |   |
| Connection of signal encoders   |   |
| <ul> <li>for voltage measurement</li> </ul>   | No  |
| <ul> <li>for current measurement as 2-wire transducer</li> </ul>  | Yes   |
| — Burden of 2-wire transmitter, max.  | 650 Ω   |
| for current measurement as 4-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.  | 50 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, (+/-)   | 0.3 %   |
| Interference voltage suppression for f = n x (f1 +/- 1 %), f1 =   |   |
| <ul> <li>Series mode interference (peak value of<br/>interference &lt; rated value of input range), min.</li> </ul> | 70 dB; With conversion time 67.5 / 22.5 / 18.75 ms: 40 dB |
| Interrupts/diagnostics/status information   |   |
| Diagnostics function  | Yes   |
| Alarms  |   |
| Diagnostic alarm  | Yes   |
| Limit value alarm   | No  |
| Diagnoses   |   |
| Monitoring the supply voltage   | Yes   |

| <ul><li>Wire-break</li></ul>   | Yes; at 4 to 20 mA   |
|--|--|
| Short-circuit  | Yes; Sensor supply to M; module by module                              |
| Group error  | Yes  |
| Overflow/underflow   | Yes  |
| Diagnostics indication LED   |  |
| <ul> <li>Monitoring of the supply voltage (PWR-LED)</li> </ul>                   | Yes; green LED   |
| <ul> <li>Channel status display</li> </ul>                                       | Yes; green LED   |
| <ul> <li>for channel diagnostics</li> </ul>                                      | No   |
| <ul> <li>for module diagnostics</li> </ul>                                       | Yes; green/red DIAG LED  |
| Potential separation   |  |
| Potential separation channels  |  |
| <ul> <li>between the channels</li> </ul>   | No   |
| <ul> <li>between the channels and backplane bus</li> </ul>                       | Yes  |
| <ul> <li>between the channels and the power supply of the electronics</li> </ul> | No   |
| Isolation  |  |
| Isolation tested with  | 707 V DC (type test)   |
| Ambient conditions   |  |
| Ambient temperature during operation   |  |
| <ul> <li>horizontal installation, min.</li> </ul>                                | -30 °C; < 0 °C as of FS04  |
| <ul> <li>horizontal installation, max.</li> </ul>                                | 60 °C  |
| <ul> <li>vertical installation, min.</li> </ul>                                  | -30 °C; < 0 °C as of FS04  |
| vertical installation, max.  | 50 °C  |
| Altitude during operation relating to sea level                                  |  |
| <ul> <li>Installation altitude above sea level, max.</li> </ul>                  | 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual |
| Dimensions   |  |
| Width  | 15 mm  |
| Height   | 73 mm  |
| Depth  | 58 mm  |
| Weights  |  |
| Weight, approx.  | 31 g   |
|  |  |

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