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## Data sheet 6AG1134-6FF00-2AA1



Figure similar

SIPLUS ET 200SP AI 8xU Basic, based on 6ES7134-6FF00-0AA1 with conformal coating, -40…+60 °C, analog input module, suitable for BU type A0, A1, color code CC02, module diagnostics, 16 bit

| | |
|---|---|
| **General information** | |
| Product type designation | AI 8xU BA |
| Firmware version | |
| ● FW update possible | Yes |
| based on | 6ES7134-6FF00-0AA1 |
| usable BaseUnits | BU type A0, A1 |
| Color code for module-specific color-coded label | CC02 |
| Product function | |
| ● I&M data | Yes; I&M0 to I&M3 |
| ● Isochronous mode | No |
| ● Measuring range scalable | No |
| Engineering with | |
| ● STEP 7 TIA Portal configurable/integrated from version | see entry ID: 109746275 |
| Operating mode | |
| ● Oversampling | No |
| ● MSI | No |
| **CiR - Configuration in RUN** | |
| Reparameterization possible in RUN | No |
| 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 (rated value) | 25 mA; rated voltage, all channels active, no load |
| Current consumption, max. | 25 mA; worst case voltage, all channels active, max. load, no derating |
| **Power loss** | |
| Power loss, typ. | 0.7 W; rated voltage, 50 % active channels, 50 % of range |
| **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 B |
| Selection of BaseUnit for connection variants | |
| ● 1-wire connection | BU type A0, A1 |


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| | |
|---|---|
| ● 2-wire connection | BU type A0, A1 |
| **Analog inputs** | |
| Number of analog inputs | 8; Single-ended |
| permissible input voltage for voltage input (destruction limit), max. | 30 V |
| Cycle time (all channels), min. | 1 ms; per channel |
| Input ranges (rated values), voltages | |
| ● 0 to +10 V | Yes; 15 bit |
| — Input resistance (0 to 10 V) | 100 kΩ |
| ● -10 V to +10 V | Yes; 16 bit incl. sign |
| — Input resistance (-10 V to +10 V) | 100 kΩ |
| Cable length | |
| ● shielded, max. | 200 m |
| **Analog value generation for the inputs** | |
| Integration and conversion time/resolution per channel | |
| ● Resolution with overrange (bit including sign), max. | 16 bit |
| ● Integration time, parameterizable | Yes |
| ● Interference voltage suppression for interference frequency f1 in Hz | 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 |
| ● parameterizable | Yes |
| ● Step: None | Yes |
| ● Step: low | Yes; 4x smoothing |
| ● Step: Medium | Yes; 8x smoothing |
| ● Step: High | Yes; 16x smoothing |
| **Encoder** | |
| Connection of signal encoders | |
| ● for voltage measurement | Yes |
| ● for current measurement as 4-wire transducer | No |
| **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 | |
| ● Voltage, relative to input range, (+/-) | 0.9 % |
| Basic error limit (operational limit at 25 °C) | |
| ● Voltage, relative to input range, (+/-) | 0.3 % |
| Interference voltage suppression for f = n x (f1 +/- 1 %), f1 = interference frequency | |
| ● Series mode interference (peak value of interference < rated value of input range), min. | 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 |
| ● Wire break | No |
| ● Short-circuit | No |
| ● Group error | Yes |
| ● Overflow/Underflow | Yes; module-wise |
| 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 |


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| **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 | No |
| **Isolation** | |
| Isolation tested with | 707 V DC (type test) |
| **Security** | |
| signed firmware update | Yes; firmware V2.0.0 or higher |
| securely removing data | Yes; firmware V2.0.0 or higher |
| data integrity | Yes; firmware V2.0.0 or higher |
| **Ambient conditions** | |
| Ambient temperature during operation | |
| ● horizontal installation, min. | -40 °C; = Tmin (incl. condensation/frost) |
| ● horizontal installation, max. | 60 °C; = Tmax; +70 °C with spacing modules (6AG1193-6BN00-7BA0) or configured slots to the left and right of the module |
| ● vertical installation, min. | -40 °C; = Tmin |
| ● vertical installation, max. | 50 °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; Class 3M8 using the SIPLUS Mounting Kit ET 200SP (6AG1193-6AA00-0AA0) |
| 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; Class 6M4 using the SIPLUS Mounting Kit ET 200SP (6AG1193-6AA00-0AA0) |
| Usage in industrial process technology | |
| — Against chemically active substances acc. to EN 60654-4 | Yes; Class 3 (excluding trichlorethylene) |
| — Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04 | Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil) |
| 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 reliability |
| ● 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 | Yes; Conformal coating, Class A |


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|---|---|
| Compound for Printed Board Assemblies according to IPC-CC-830A | |

| Dimensions | |
|---|---|
| Width | 15 mm |
| Height | 73 mm |
| Depth | 58 mm |

| Weights | |
|---|---|
| Weight, approx. | 31 g |

**Classifications**

| | Version | Classification |
|---|---|---|
| eClass | 16 | 27-24-26-01 |
| 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 |
| IDEA | 4 | 3562 |
| UNSPSC | 15 | 32-15-17-05 |

**Approvals / Certificates**

**General Product Approval**

Manufacturer Declaration | CE EG-Konf. | UKCA | China RoHS | UL | RCM

| General Product Approval | | | | EMV | For use in hazardous locations |
|---|---|---|---|---|---|
| EAC | China RoHS | CE EG-Konf. | UKCA | RCM | IECEx |

| For use in hazardous locations | | | Maritime application |
|---|---|---|---|
| ATEX | CCC-Ex | CCC-Ex | DNV |

**last modified:** 3/10/2026


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