SIEMENS

## Data sheet 6AG1131-6BF61-7AA0




SIPLUS ET 200SP, digital input modul, DI 8x DC 24V SRC BA, -40...+70°C with conformal coating based on 6ES7131-6BF61-0AA0 . type 1 (IEC 61131), source Input (NPN, M-reading) Packing unit: 1 piece, fits to BU-type A0, Colour Code CC02, input delay time 0,05..20ms, module diagnostics for: supply voltage

| | |
|---|---|
| **General information** | |
| Product type designation | DI 8x24 VDC SRC BA |
| Firmware version | |
| • FW update possible | No |
| usable BaseUnits | BU type A0 |
| Color code for module-specific color identification plate | CC02 |
| **Product function** | |
| • I&M data | Yes; I&M0 to I&M3 |
| • Isochronous mode | No |
| **Operating mode** | |
| • DI | Yes |
| • Counter | No |
| • Oversampling | No |
| • MSI | No |
| **Supply voltage** | |
| Rated value (DC) | 24 V |
| permissible range, lower limit (DC) | 19.2 V |


Subject to change without notice
© Copyright Siemens

| | |
|---|---|
| permissible range, upper limit (DC) | 28.8 V |
| Reverse polarity protection | Yes |
| **Encoder supply** | |
| Short-circuit protection | No |
| **Power loss** | |
| Power loss, typ. | 1.5 W |
| **Address area** | |
| Address space per module | |
| • Inputs | 1 byte |
| **Hardware configuration** | |
| Automatic encoding | Yes |
| Selection of BaseUnit for connection variants | |
| • 1-wire connection | BU type A0 |
| • 2-wire connection | BU type A0 |
| • 3-wire connection | BU type A0 with AUX terminals |
| • 4-wire connection | BU type A0 + Potential distributor module |
| **Digital inputs** | |
| Number of digital inputs | 8 |
| Digital inputs, parameterizable | Yes |
| Source/sink input | Sourcing |
| Input characteristic curve in accordance with IEC 61131, type 1 | Yes |
| Input voltage | |
| • Rated value (DC) | 24 V |
| — 24 V DC | Yes |
| • for signal "0" | 30 V to -5 V (reference potential is L+) |
| • for signal "1" | -11 V to -30 V (reference potential is L+) |
| Input current | |
| • for signal "1", typ. | 6 mA |
| Input delay (for rated value of input voltage) | |
| for standard inputs | |
| — parameterizable | Yes; 0.05 / 0.1 / 0.4 / 0.8 / 1.6 / 3.2 / 12.8 / 20 ms (in each case + delay of 30 to 500 µs, depending on line length) |
| — at "0" to "1", min. | 0.05 ms |
| — at "0" to "1", max. | 20 ms |
| — at "1" to "0", min. | 0.05 ms |
| — at "1" to "0", max. | 20 ms |
| Cable length | |
| • shielded, max. | 1 000 m |
| • unshielded, max. | 200 m |


Subject to change without notice
© Copyright Siemens

| | |
|---|---|
| **Encoder** | |
| Connectable encoders | |
| • 2-wire sensor | Yes |
| — permissible quiescent current (2-wire sensor), max. | 1.5 mA |
| **Interrupts/diagnostics/status information** | |
| Diagnostics function | Yes |
| Alarms | |
| • Diagnostic alarm | Yes |
| Diagnoses | |
| • Diagnostic information readable | Yes |
| • Monitoring the supply voltage | Yes |
| — parameterizable | Yes |
| • Monitoring of encoder power supply | No |
| • Wire-break | No |
| • Short-circuit | No |
| 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 |
| **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) |
| **Standards, approvals, certificates** | |
| Suitable for safety functions | No |
| **Ambient conditions** | |
| Ambient temperature during operation | |
| • horizontal installation, min. | -40 °C; = Tmin (incl. condensation/frost) |
| • horizontal installation, max. | 70 °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) |


Subject to change without notice
© Copyright Siemens

| | |
|---|---|
| Relative humidity | |
| • With condensation, tested in accordance with IEC 60068-2-38, max. | 100 %; incl. condensation / frost permitted (no commissioning under condensation conditions) |
| 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 Compound for Printed Board Assemblies according to IPC-CC-830A | Yes; Conformal coating, Class A |


© Copyright Siemens

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

| Weights | |
|---|---|
| Weight, approx. | 28 g |

**last modified:** 12/09/2020


Subject to change without notice
© Copyright Siemens