SIEMENS

## Data sheet 6AG1132-6HD01-7BB1

SIPLUS ET 200SP RQ 4x 120V DC..230VAC/5A ST based on 6ES7132-6HD01-0BB1 with conformal coating, -40…+70 °C, relay module normally open, suitable for BU type B0 or B1, module diagnostics

| | |
|---|---|
| **General information** | |
| Product type designation | RQ 4x120 VDC ... 230 VAC/5 A NO ST |
| Firmware version | |
| ● FW update possible | No |
| based on | 6ES7132-6HD01-0BB1 |
| usable BaseUnits | BU type B0, B1 |
| Product function | |
| ● I&M data | Yes; I&M0 to I&M3 |
| ● Isochronous mode | No |
| Engineering with | |
| ● STEP 7 TIA Portal configurable/integrated from version | see entry ID: 109746275 |
| Operating mode | |
| ● DQ | Yes |
| ● DQ with energy-saving function | No |
| ● PWM | No |
| ● Oversampling | No |
| ● MSO | No |
| Redundancy | |
| ● Redundancy capability | 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) | 55 mA; without load |
| **Output voltage** | |
| Rated value (AC) | 230 V |
| **Power loss** | |
| Power loss, typ. | 1.5 W |
| **Address area** | |
| Address space per module | |
| ● Inputs | + 1 byte for QI information |
| ● Outputs | 1 byte |
| **Hardware configuration** | |
| Automatic encoding | Yes |
| ● Mechanical coding element | Yes |
| ● Type of mechanical coding element | type C |
| Selection of BaseUnit for connection variants | |

| | |
|---|---|
| ● 2-wire connection | BU type B1 |
| ● 3-wire connection | BU type B0 |
| **Digital outputs** | |
| Type of digital output | Relays |
| Number of digital outputs | 4 |
| Current-sinking | Yes |
| Current-sourcing | Yes |
| Digital outputs, parameterizable | Yes |
| Short-circuit protection | No |
| Parallel switching of two outputs | |
| ● for logic links | Yes |
| ● for uprating | No |
| ● for redundant control of a load | Yes |
| Switching frequency | |
| ● with resistive load, max. | 2 Hz |
| ● with inductive load (acc. to IEC 60947-5-1, DC13), max. | 0.5 Hz; provide one freewheeling diode for switching frequencies higher than 0.1 Hz |
| ● with inductive load (acc. to IEC 60947-5-1, AC15), max. | 0.5 Hz |
| ● on lamp load, max. | 2 Hz |
| Total current of the outputs | |
| ● Current per channel, max. | 5 A; > +60 °C max. continuous current per relay 3 A |
| ● Current per module, max. | 20 A |
| Total current of the outputs (per module) | |
| horizontal installation | |
| — up to 50 °C, max. | 20 A |
| — up to 60 °C, max. | 16 A |
| vertical installation | |
| — up to 40 °C, max. | 20 A |
| — up to 50 °C, max. | 16 A; in all other mounting positions |
| Relay outputs | |
| ● Number of relay outputs | 4 |
| ● Rated supply voltage of relay coil L+ (DC) | 24 V |
| ● Current consumption of relays (coil current of all relays), max. | 40 mA |
| ● external protection for relay outputs | Yes, with miniature fuse max. 6 A tripping current and quick-response tripping characteristic |
| ● Number of operating cycles, max. | 7 000 000; see additional description in the manual |
| Switching capacity of contacts | |
| — with inductive load, max. | 2 A; see additional description in the manual |
| — with resistive load, max. | 5 A; see additional description in the manual |
| — Thermal continuous current, max. | 5 A; Max. 1 385 VA, 150 W |
| — Switching current, min. | 100 mA; 5 V DC |
| — Rated switching voltage (DC) | 24 V DC to 120 V DC |
| — Rated switching voltage (AC) | 24V AC to 230V AC |
| Cable length | |
| ● shielded, max. | 1 000 m |
| ● unshielded, max. | 200 m |
| **Interrupts/diagnostics/status information** | |
| Diagnostics function | Yes |
| Substitute values connectable | Yes |
| Alarms | |
| ● Diagnostic alarm | Yes |
| Diagnoses | |
| ● Monitoring the supply voltage | Yes |
| ● 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 |

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| ● for module diagnostics | Yes; green/red DIAG LED |
| **Potential separation** | |
| Potential separation channels | |
| ● between the channels | Yes |
| ● between the channels and backplane bus | Yes |
| ● between the channels and the power supply of the electronics | Yes |
| **Permissible potential difference** | |
| between channels and backplane bus/supply voltage | 240 V AC |
| **Isolation** | |
| Isolation tested with | 2 500 V DC (type test) |
| tested with | |
| ● between channels and backplane bus/supply voltage | 2 500 V DC |
| ● between backplane bus and supply voltage | 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; see Derating BasedOn (e.g. manual), additionally Tmax > 60 °C max. continuous current of 3 A per relay |
| ● vertical installation, min. | -40 °C; in all other mounting positions |
| ● vertical installation, max. | 50 °C; in all other mounting positions |
| Altitude during operation relating to sea level | |
| ● Installation altitude above sea level, max. | 3 000 m |
| ● Ambient air temperature-barometric pressure-altitude | Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 1 K/100 m) at 795 hPa ... 701 hPa (+2 000 m ... +3 000 m) |
| 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 | Yes; Class 2 for high reliability |

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| 61086 | |
| ● 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 |

| **Dimensions** | |
|---|---|
| Width | 20 mm |
| Height | 73 mm |
| Depth | 58 mm |

| **Weights** | |
|---|---|
| Weight, approx. | 40 g |

**Classifications**

| | Version | Classification |
|---|---|---|
| eClass | 14 | 27-24-26-04 |
| eClass | 12 | 27-24-26-04 |
| eClass | 9.1 | 27-24-26-04 |
| eClass | 9 | 27-24-26-04 |
| eClass | 8 | 27-24-26-04 |
| eClass | 7.1 | 27-24-26-04 |
| eClass | 6 | 27-24-26-04 |
| ETIM | 10 | EC001599 |
| ETIM | 9 | EC001599 |
| ETIM | 8 | EC001599 |
| ETIM | 7 | EC001599 |
| IDEA | 4 | 3566 |
| UNSPSC | 15 | 32-15-17-05 |

**Approvals / Certificates**

**General Product Approval**

Manufacturer Declaration

China RoHS

**EMV**

**Maritime application**