



Figure similar

SIPLUS ET 200SP IM155-6PN ST -40 ... +70°C with conformal coating based on 6ES7155-6AA01-0BN0 . Bundle PROFINET IM, IM 155-6PN ST, max. 32 Peripheriemodules and 16 ET 200AL Modules, Single Hot SWAP, Bundle contains: Interface-Module (6AG1155-6AU01-7BN0), Server-Module (6AG1193-6PA00-7AA0), Busadapter BA 2xRJ45 (6AG1193-6AR00-7AA0)

| General information | |
|---|--------------------------|
| Product type designation | IM 155-6 PN ST |
| Product function | |
| • I&M data | Yes; I&M0 to I&M3 |
| • Module swapping during operation (hot swapping) | Yes; Single hot swapping |
| • Isochronous mode | No |
| Engineering with | |
| • PROFINET as of GSD version/GSD revision | V2.3 / - |
| Configuration control | |
| via dataset | 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 |
| Short-circuit protection | Yes |

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| Mains buffering | |
| • Mains/voltage failure stored energy time | 10 ms |
| Input current | |
| Current consumption (rated value) | 450 mA |
| Current consumption, max. | 550 mA |
| Inrush current, max. | 3.7 A |
| I^2t | 0.09 A ² ·s |
| Power | |
| Infeed power to the backplane bus | 4.5 W |
| Power loss | |
| Power loss, typ. | 1.9 W |
| Address area | |
| Address space per module | |
| • Address space per module, max. | 256 byte; per input / output |
| Address space per station | |
| • Address space per station, max. | 512 byte; Dependent on configuration |
| Hardware configuration | |
| Rack | |
| • Modules per rack, max. | 32; + 16 ET 200AL modules |
| Submodules | |
| • Number of submodules per station, max. | 256 |
| Interfaces | |
| Number of PROFINET interfaces | 1; 2 ports (switch) |
| 1. Interface | |
| Interface types | |
| • Number of ports | 2 |
| • integrated switch | Yes |
| • RJ 45 (Ethernet) | Yes; Pre-assembled BusAdapter BA 2x RJ45 |
| • BusAdapter (PROFINET) | Yes; Applicable BusAdapter: BA 2x RJ45, BA 2x FC |
| Protocols | |
| • PROFINET IO Device | Yes |
| • Open IE communication | Yes |
| • Media redundancy | Yes; PROFINET MRP |
| Interface types | |
| RJ 45 (Ethernet) | |
| • Transmission procedure | PROFINET with 100 Mbit/s full duplex (100BASE-TX) |
| • 10 Mbps | Yes; for Ethernet services |
| • 100 Mbps | Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX) |
| • Autonegotiation | Yes |

| | |
|---|--|
| • Autocrossing | Yes |
| Protocols | |
| PROFINET IO Device | |
| Services | |
| — IRT | Yes; with send cycles of between 250 µs and 4 ms in increments of 125 µs |
| — PROFINergy | Yes |
| — Prioritized startup | Yes |
| — Shared device | Yes |
| — Number of IO Controllers with shared device, max. | 2 |
| Redundancy mode | |
| • PROFINET system redundancy (S2) | No |
| Media redundancy | |
| — MRP | Yes |
| — MRPD | No |
| Open IE communication | |
| • TCP/IP | Yes |
| • SNMP | Yes |
| • LLDP | Yes |
| Interrupts/diagnostics/status information | |
| Status indicator | Yes |
| Alarms | Yes |
| Diagnostics function | Yes |
| Diagnostics indication LED | |
| • RUN LED | Yes; green LED |
| • ERROR LED | Yes; red LED |
| • MAINT LED | Yes; Yellow LED |
| • Monitoring of the supply voltage (PWR-LED) | Yes; green PWR LED |
| • Connection display LINK TX/RX | Yes; 2x green link LEDs on BusAdapter |
| Potential separation | |
| between backplane bus and electronics | No |
| between PROFINET and all other circuits | Yes; 1 500 V AC |
| between supply and all other circuits | No |
| Permissible potential difference | |
| between different circuits | Safety extra low voltage SELV |
| Standards, approvals, certificates | |
| Network loading class | 2 |
| Security level | According to Security Level 1 Test Cases V1.1.1 |
| Ambient conditions | |

| | |
|---|---|
| Ambient temperature during operation | |
| • horizontal installation, min. | -40 °C; = Tmin (incl. condensation/frost) |
| • horizontal installation, max. | 70 °C; = Tmax |
| • 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, * |
| 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; * |
| 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
- Military testing according to MIL-I-46058C, Amendment 7
- Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A

Yes; Type 1 protection

Yes; Discoloration of coating possible during service life

Yes; Conformal coating, Class A

Connection method

ET-Connection

- via BU/BA Send

Yes; + 16 ET 200AL modules

Dimensions

| | |
|--------|--------|
| Width | 50 mm |
| Height | 117 mm |
| Depth | 74 mm |

Weights

Weight, approx. 190 g; IM 155-6 PN BA with 2x RJ45 ports and server module

last modified: 05/06/2020