




Figure similar

SIPLUS ET 200S F-DQ 24V PROFIsafe based on 6ES7138-4FB04-0AB0 with conformal coating, -25...+60 °C, electronic module for ET 200S, 4 F-DQ PROFIsafe, 24 V DC/2 A, 30 mm overall width, up to category 4 (EN 954-1)/ SIL3 (IEC 61508)/PLE (ISO 13849), can also be used in PROFINET configurations with IM 151-3 HF

| Supply voltage | |
|---|---|
| Load voltage L+ | |
| • Rated value (DC) | 24 V |
| • Reverse polarity protection | No |
| Input current | |
| From load voltage L+ (no load), typ. | 100 mA |
| from backplane bus 3.3 V DC, max. | 28 mA |
| Power loss | |
| Power loss, typ. | 3.5 W |
| Digital outputs | |
| Type of digital output | Transistor |
| Number of digital outputs | 4 |
| Short-circuit protection | Yes |
| Limitation of inductive shutdown voltage to | Typ. (2L+) -47 V |
| Controlling a digital input | No |
| Switching capacity of the outputs | |
| • on lamp load, max. | 10 W |
| Load resistance range | |
| • lower limit | 12 Ω |
| • upper limit | 1 kΩ |
| Output voltage | |
| • for signal "1", min. | L+ (-2,0 V), current sourcing switch: L+ (-1,5 V), voltage drop on current sinking switch: max. 0.5 V |
| Output current | |
| • for signal "1" rated value | 2 A |
| • for signal "1" permissible range, min. | 20 mA |
| • for signal "1" permissible range, max. | 2.4 A |
| • for signal "0" residual current, max. | 0.5 mA; Current-sourcing and current-sinking switches |
| Parallel switching of two outputs | |
| • for uprating | No |
| • for redundant control of a load | No |
| Switching frequency | |
| • with resistive load, max. | 30 Hz; Symmetrical |
| • with inductive load, max. | 0.1 Hz; Symmetrical |
| • on lamp load, max. | 10 Hz; Symmetrical |
| Total current of the outputs | |
| • Current per module, max. | 6 A |
| Total current of the outputs (per group) | |
| horizontal installation | |

| | |
|---|---|
| — up to 40 °C, max. | 6 A |
| — up to 55 °C, max. | 5 A |
| — up to 60 °C, max. | 4 A |
| vertical installation | |
| — up to 40 °C, max. | 4 A |
| Cable length | |
| • shielded, max. | 500 m |
| • unshielded, max. | 500 m |
| Interrupts/diagnostics/status information | |
| Diagnostics function | Yes |
| Diagnoses | |
| • Wire-break | Yes |
| • Short-circuit | Yes |
| Diagnostics indication LED | |
| • Group error SF (red) | Yes |
| • Status indicator digital output (green) | Yes |
| Potential separation | |
| Potential separation digital outputs | |
| • between the channels | No |
| • between the channels and backplane bus | Yes |
| • Between the channels and load voltage L+ | No |
| Standards, approvals, certificates | |
| Highest safety class achievable in safety mode | |
| • acc. to EN 954 | 4 |
| • Performance level according to ISO 13849-1 | PL _e |
| • SIL acc. to IEC 61508 | SIL 3 |
| Ambient conditions | |
| Ambient temperature during operation | |
| • min. | -25 °C |
| • max. | 60 °C |
| Altitude during operation relating to sea level | |
| • Installation altitude above sea level, max. | 2 000 m |
| • Ambient air temperature-barometric pressure-altitude | Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) |
| Relative humidity | |
| • With condensation, tested in accordance with IEC 60068-2-38, max. | 100 %; RH incl. condensation/frost (no commissioning under condensation conditions) |
| Resistance | |
| 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! |
| Dimensions | |
| Width | 30 mm |
| Height | 81 mm |

| | |
|-----------------|---|
| Depth | 52 mm |
| Weights | |
| Weight, approx. | 85 g |
| last modified: | 5/13/2024  |