



SIPLUS ET 200S EM 2 AE I HF based on 6ES7134-4MB02-0AB0 with conformal coating, -25...+70 °C, electronic module 15 mm overall width, cycle time per module: 0.5 ms, +/-20 mA; 15 bit+sign, 4.. 20 mA; 15 bit, operational limit +/-0.1% with SF LED (group fault)

| General information | |
|--|--|
| Product function | |
| • Isochronous mode | Yes |
| Supply voltage | |
| Load voltage L+ | |
| • Rated value (DC) | 24 V |
| • Reverse polarity protection | Yes |
| Input current | |
| from load voltage L+ (without load), max. | 48 mA |
| from backplane bus 3.3 V DC, max. | 10 mA |
| output voltage / header | |
| supply voltage of the transmitters / header | |
| • present | Yes |
| • short-circuit proof | Yes |
| Power loss | |
| Power loss, typ. | 1.2 W |
| Address area | |
| Address space per module | |
| • Address space per module, max. | 4 byte |
| Analog inputs | |
| Number of analog inputs | 2 |
| permissible input current for current input (destruction limit), max. | 50 mA |
| Cycle time (all channels) max. | 0.5 ms; 0.5 ms for 2 channels without noise suppression, 18 / 21 ms per channel with noise suppression |
| Input ranges (rated values), currents | |
| • -20 mA to +20 mA | Yes |
| • 4 mA to 20 mA | Yes |
| Cable length | |
| • shielded, max. | 200 m |
| Analog value generation for the inputs | |
| Measurement principle | Sigma Delta |
| 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 | 60 / 50 Hz / no |
| • Conversion time (per channel) | 0.04 ms; Without noise suppression 17/20 ms per channel with error |
| Smoothing of measured values | |
| • parameterizable | Yes; In 4 stages: 1x, 4x, 16x, 32x cycle time |
| • Step: None | Yes; 1x |

| | |
|--|---|
| • Step: low | Yes; 4x |
| • Step: Medium | Yes; 16x |
| • Step: High | Yes; 32x |
| Errors/accuracies | |
| Operational error limit in overall temperature range | |
| • Current, relative to input range, (+/-) | 0.1 %; 0.2% without interference frequency suppression |
| Basic error limit (operational limit at 25 °C) | |
| • Current, relative to input range, (+/-) | 0.05 %; 0.1% without interference frequency suppression |
| Interrupts/diagnostics/status information | |
| Alarms | |
| • Hardware interrupt | Yes |
| Diagnoses | |
| • Wire-break | Yes; Measuring range 4 to 20 mA only |
| • Group error | Yes |
| • Overflow/underflow | Yes |
| Diagnostics indication LED | |
| • Group error SF (red) | Yes |
| Parameter | |
| Remark | 12 bytes, 4 bytes in compatibility mode |
| Diagnostics wire break | Disable / enable |
| Group diagnostics | Disable / enable |
| Overflow/underflow | Disable / enable |
| Potential separation | |
| Potential separation analog inputs | |
| • between the channels | No; however, increased permissible potential difference between the inputs. |
| • between the channels and backplane bus | Yes |
| • Between the channels and load voltage L+ | Yes |
| Standards, approvals, certificates | |
| CE mark | Yes |
| Ambient conditions | |
| Ambient temperature during operation | |
| • min. | -25 °C; = Tmin |
| • 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) |
| Relative humidity | |
| • With condensation, tested in accordance with IEC 60068-2-38, max. | 100 %; RH incl. condensation/frost permitted (no commissioning in bedewed state) |
| 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 | * The supplied plug covers must remain in place over the unused interfaces |

conditions acc. to EN 60721, EN 60654-4 and
ANSI/ISA-71.04

during operation!

Dimensions

| | |
|--------|-------|
| Width | 15 mm |
| Height | 81 mm |
| Depth | 52 mm |

Weights

| | |
|-----------------|------|
| Weight, approx. | 45 g |
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last modified: 8/21/2024 