

SIEMENS

Product data sheet

6ES7134-4JB51-0AB0

SIMATIC DP,
ELECTRONIC MODULE FOR ET 200S,
2/4 AI RTD STANDARD, 15 MM WIDE,
15BIT + SIGN PT100 STD;
PT100 KL;
NI100 STD;
NI100 KL;
150 OHM;
300 OHM;
600 OHM,
CYCLE TIME 110 MS/CHANNEL WITH LED SF
(GROUP FAULT)

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|-------------------------------------------|----------------------------------|
| Supply voltage | |
| Load voltage L+ | |
| Rated value (DC) | 24 V ; From power module |
| Reverse polarity protection | Yes |
| Input current | |
| from load voltage L+ (without load), max. | 30 mA |
| from backplane bus 3.3 V DC, max. | 10 mA |
| Output voltage | |
| Power supply to the transmitters | |
| present | Yes |
| short-circuit proof | Yes |
| Power losses | |
| Power loss, typ. | 0.6 W |
| Address area | |
| Address space per module | |
| Address space per module, max. | 8 byte |
| Analog inputs | |
| Number of analog inputs | 4 ; 2 for 3 or 4-wire connection |

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| permissible input voltage for voltage input (destruction limit), max. | 9 V |
| Constant measurement current for resistance-type transmitter, typ. | 1.67 mA |
| Cycle time (all channels) max. | Number of active channels per module x basic conversion time |
| Technical unit for temperature measurement adjustable | No |
| Input ranges | |
| Resistance thermometer | Yes |
| Resistance | Yes |
| Input ranges (rated values), resistance thermometers | |
| Ni 100 | Yes ; Standard/climate |
| Input resistance (Ni 100) | 2000 k Ω |
| Pt 100 | Yes ; Standard/climate |
| Input resistance (Pt 100) | 2000 k Ω |
| Input ranges (rated values), resistors | |
| 0 to 150 ohms | Yes |
| Input resistance (0 to 150 ohms) | 2000 k Ω |
| 0 to 300 ohms | Yes |
| Input resistance (0 to 300 ohms) | 2000 k Ω |
| 0 to 600 ohms | Yes |
| Input resistance (0 to 600 ohms) | 2000 k Ω |
| Resistance thermometer (RTD) | |
| Characteristic linearization | |
| for resistance thermometer | Pt100 (standard, climatic range), Ni100 (standard, climatic range) |
| Characteristic linearization | |
| Parameterizable | Yes ; for Pt100, Ni100 |
| Cable length | |
| Cable length, shielded, max. | 200 m |
| Analog value creation | |
| Measurement principle | integrating |
| Integrations and conversion time/ resolution per channel | |

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| Resolution with overrange (bit including sign), max. | 16 bit ; 150 ohms: 14 bits; 300, 600 ohms: 15 bits, Pt100, Ni100: 16 bits |
| Integration time, parameterizable | Yes |
| Integration time, ms | 16.7 / 20 ms |
| Interference voltage suppression for interference frequency f1 in Hz | 60 / 50 Hz |
| Conversion time (per channel) | 66 / 80 ms; additional conversion time for diagnostic wire break test |
| Smoothing of measured values | |
| Parameterizable | Yes ; In four stages by means of digital filtering |
| Step: None | Yes ; 1 x cycle time |
| Step: low | Yes ; 4 x cycle time |
| Step: Medium | Yes ; 32 x cycle time |
| Step: High | Yes ; 64 x cycle time |
| Encoder | |
| Connection of signal encoders | |
| for resistance measurement with 2-conductor connection | Yes |
| for resistance measurement with 3-conductor connection | Yes |
| for resistance measurement with 4-conductor connection | Yes |
| Errors/accuracies | |
| Linearity error (relative to input area) | +/- 0,01 % |
| Temperature error (relative to input area) | +/- 0,005 %/K |
| Crosstalk between the inputs, min. | -50 dB |
| Repeat accuracy in settled status at 25 °C (relative to input area) | +/- 0,05 % |
| Operational limit in overall temperature range | |
| Resistance-type thermometer, relative to input area | +/- 0,6 % |
| Basic error limit (operational limit at 25 °C) | |
| Resistance-type thermometer, relative to input area | +/- 0,4 % |
| Interference voltage suppression for $f = n \times (f1 \pm 1\%)$, $f1$ = interference frequency | |

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| Series mode interference (peak value of interference < rated value of input range), min. | 70 dB |
| common mode voltage (USS < 2.5 V) , min. | 90 dB |
| Isochronous mode | |
| Isochronous operation (application synchronized up to terminal) | No |
| Interrupts/diagnostics/status information | |
| Diagnostic messages | |
| Diagnostic functions | Yes ; Can be read out |
| Wire break | Yes |
| Group error | Yes |
| Overflow/underflow | Yes |
| Diagnostics indication LED | |
| Group error SF (red) | Yes |
| Parameter | |
| Diagnosis: wire break | Disable / enable |
| Measurement type/range | deactivated/150 ohms/; 300 ohms/600 ohms/ Pt100 climatic/ Pt100 standard; Ni100 standard / Ni100 climatic, 2, 3 or 4-wire |
| Group diagnostics | Disable / enable |
| Overflow/underflow | Disable / enable |
| Galvanic isolation | |
| Galvanic isolation analog inputs | |
| between the channels | No |
| between the channels and the backplane bus | Yes |
| between the channels and the load voltage L+ | Yes |
| Permissible potential difference | |
| between MANA and M internally (UISO) | 75 VDC / 60 VAC |
| Isolation | |
| Isolation checked with | 500 V DC |
| Dimensions | |
| Width | 15 mm |
| Height | 81 mm |
| Depth | 52 mm |

Weight

Weight, approx.

40 g

Status

Jul 17, 2012