

*** SPARE PART*** SIMATIC DP, ELECTRONIC MODULE FOR ET 200S, 2 AI STAND. I-4DMU 15 MM WIDE, +/-20MA; 13 BIT + SIGN,4 .. 20MA; 12 BIT FOR 4-WIRE TRANSDUCER CYCLE TIME 65 MS/CHANNEL WITH LED SF (GROUP FAULT)

Supply voltage

| | |
|---|-------------------------|
| Load voltage L+ | |
| <ul style="list-style-type: none"> Rated value (DC) | 24 V; From power module |
| <ul style="list-style-type: none"> 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 | |
| <ul style="list-style-type: none"> present | Yes |
| <ul style="list-style-type: none"> short-circuit proof | Yes; 60 mA (for both channels) |

Power loss

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|------------------|-------|
| Power loss, typ. | 0.6 W |
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Address area

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|--|--------|
| Address space per module | |
| <ul style="list-style-type: none"> Address space per module, max. | 4 byte |

Analog inputs

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|---|--|
| Number of analog inputs | 2 |
| permissible input current for current input (destruction limit), max. | 40 mA |
| Cycle time (all channels) max. | Number of active channels per module x basic conversion time |

Input ranges

| | |
|--|-------------|
| <ul style="list-style-type: none"> Current | Yes |
| Input ranges (rated values), currents | |
| <ul style="list-style-type: none"> -20 mA to +20 mA | Yes; 50 Ohm |
| <ul style="list-style-type: none"> 4 mA to 20 mA | Yes; 50 Ohm |

Cable length

| | |
|--|-------|
| <ul style="list-style-type: none"> shielded, max. | 200 m |
|--|-------|

Analog value generation for the inputs

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| Measurement principle | integrating |
| Integration and conversion time/resolution per channel | |

| | |
|---|---|
| • Resolution with overrange (bit including sign), max. | 14 bit; +/-20 mA: 14 bits, 4 to 20 mA: 13 bits |
| • Integration time, parameterizable | Yes |
| • Integration time (ms) | 16,7 / 20 ms |
| • Interference voltage suppression for interference frequency f1 in Hz | 50 / 60 Hz |
| • Conversion time (per channel) | 65 ms; 55 / 65 ms |
| 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 current measurement as 2-wire transducer — Burden of 2-wire transmitter, max. | 750 Ω |
| Errors/accuracies | |
| Linearity error (relative to input range), (+/-) | 0.01 % |
| Temperature error (relative to input range), (+/-) | 0.005 %/K |
| Crosstalk between the inputs, min. | -50 dB |
| Repeat accuracy in steady state at 25 °C (relative to input range), (+/-) | 0.05 % |
| Operational error limit in overall temperature range | |
| • Current, relative to input range, (+/-) | 0.6 % |
| Basic error limit (operational limit at 25 °C) | |
| • Current, relative to input range, (+/-) | 0.4 % |
| Interference voltage suppression for $f = n \times (f_1 \pm 1 \%)$, $f_1 =$ interference frequency | |
| • Series mode interference (peak value of interference < rated value of input range), min. | 70 dB |
| Isochronous mode | |
| Isochronous operation (application synchronized up to terminal) | No |
| Interrupts/diagnostics/status information | |
| Diagnostic messages | |
| • 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 | 4 byte |
| Diagnostics wire break | Disable / enable (only in measuring range 4 to 20 mA) |
| Measurement type/range | deactivated / +/-20 mA / 4 to 20 mA |
| Group diagnostics | Disable / enable |
| Overflow/underflow | Disable / enable |

Potential separation

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| Potential separation analog inputs | |
| • between the channels | No |
| • between the channels and backplane bus | Yes |
| • Between the channels and load voltage L+ | No |

Isolation

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| Isolation tested with | 500 V DC |
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Dimensions

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

Weights

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| Weight, approx. | 40 g |
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last modified: 03/06/2017