

SIMATIC DP, ELECTRONIC MODULE ET 200S: 2AI HIGH SPEED I-4WIRE 4 - 20MA; 16BIT, 15 MM WIDTH, FOR 4-WIRE TRANSDUCER, CYCLE TIME OF MODULE: 0.1MS, WITH LED SF (GROUP FAULT)



Figure similar

### Supply voltage

#### Load voltage L+

|                               |      |
|-------------------------------|------|
| • Rated value (DC)            | 24 V |
| • Short-circuit protection    | Yes  |
| • Reverse polarity protection | Yes  |

### Input current

|   |                     |
|---|---------------------|
| from load voltage L+ (without load), max. | 80 mA; without load |
| from backplane bus 3.3 V DC, max.         | 10 mA               |

### Output voltage

#### Power supply to the transmitters

|                       |     |
|-----------------------|-----|
| • present             | Yes |
| • short-circuit proof | Yes |

### Encoder supply

|                          |      |
|--------------------------|------|
| Number of outputs        | 2    |
| Type of output voltage   | 24 V |
| Short-circuit protection | Yes  |
| Output current           |      |

|   |                      |
|---|----------------------|
| • Rated value   | 80 mA; Per channel   |
| • permissible range   | 0 to 90 mA           |
| <b>Power loss</b>   |                      |
| Power loss, typ.  | 1.9 W                |
| <b>Address area</b>   |                      |
| Address space per module  |                      |
| • Address space per module, max.                                      | 4 byte               |
| <b>Analog inputs</b>  |                      |
| Number of analog inputs   | 2                    |
| permissible input current for current input (destruction limit), max. | 30 mA                |
| Cycle time (all channels) max.  | 250 µs               |
| <b>Input ranges</b>   |                      |
| • Voltage   | No                   |
| • Current   | Yes                  |
| • Thermocouple  | No                   |
| • Resistance thermometer  | No                   |
| • Resistance  | No                   |
| <b>Input ranges (rated values), currents</b>                          |                      |
| • 0 to 20 mA  | Yes                  |
| • Input resistance (0 to 20 mA)                                       | 106 Ω                |
| • -20 mA to +20 mA  | Yes                  |
| • 4 mA to 20 mA   | Yes                  |
| <b>Cable length</b>   |                      |
| • shielded, max.  | 200 m                |
| <b>Analog value generation for the inputs</b>                         |                      |
| Integration and conversion time/resolution per channel                |                      |
| • Resolution with overrange (bit including sign), max.                | 16 bit               |
| <b>Smoothing of measured values</b>                                   |                      |
| • parameterizable   | Yes                  |
| • Step: None  | Yes; 1 x cycle time  |
| • Step: low   | Yes; 4 x cycle time  |
| • Step: Medium  | Yes; 16 x cycle time |
| • Step: High  | Yes; 32 x cycle time |
| <b>Encoder</b>  |                      |
| Connection of signal encoders   |                      |
| • for current measurement as 2-wire transducer                        | No                   |
| <b>Errors/accuracies</b>  |                      |
| Linearity error (relative to full-scale), (+/-)                       | 0.03 %               |

|  |                                      |
|--|--------------------------------------|
| Temperature error (relative to full-scale), (+/-)                        | 0.01 %/K                             |
| Crosstalk between the inputs, min.                                       | -50 dB                               |
| Repeat accuracy in steady state at 25 °C (relative to full-scale), (+/-) | 0.1 %                                |
| Operational error limit in overall temperature range                     |                                      |
| • Current, relative to full-scale, (+/-)                                 | 0.3 %                                |
| Basic error limit (operational limit at 25 °C)                           |                                      |
| • Current, relative to full-scale, (+/-)                                 | 0.2 %                                |
| <b>Isochronous mode</b>  |                                      |
| Isochronous operation (application synchronized up to terminal)          | Yes                                  |
| <b>Interrupts/diagnostics/status information</b>                         |                                      |
| Alarms   |                                      |
| • Hardware interrupt   | Yes                                  |
| Diagnostic messages  |                                      |
| • Diagnostic information readable  | Yes                                  |
| • Wire-break   | Yes; Measuring range 4 to 20 mA only |
| • Group error  | Yes                                  |
| • Overflow/underflow   | Yes                                  |
| Diagnostics indication LED   |                                      |
| • Group error SF (red)   | Yes                                  |
| <b>Parameter</b>   |                                      |
| Diagnostics wire break   | At 4 to 20 mA                        |
| Measurement type/range   | 4 to 20 mA, 0 to 20 mA, +/-20 mA     |
| Group diagnostics  | Yes                                  |
| Overflow/underflow   | Yes                                  |
| <b>Potential separation</b>  |                                      |
| Potential separation analog inputs                                       |                                      |
| • between the channels   | No                                   |
| • between the channels and backplane bus                                 | Yes                                  |
| • Between the channels and load voltage L+                               | Yes                                  |
| <b>Permissible potential difference</b>                                  |                                      |
| between MANA and M internally (UISO)                                     | 75 V DC/60 V AC                      |
| <b>Dimensions</b>  |                                      |
| Width  | 15 mm                                |
| Height   | 81 mm                                |
| Depth  | 52 mm                                |
| <b>Weights</b>   |                                      |
| Weight, approx.  | 45 g                                 |

**last modified:**

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