



SIMATIC DP,  
ELECTRONIC MODULE ET 200S: 2 AI HIGH SPEED U,  
15 BIT, 15 MM WIDE,  
CYCLE TIME OF MODULE: 0.1MS,  
WITH LED SF (GROUP FAULT)

|                                                                       |                  |
|-----------------------------------------------------------------------|------------------|
| Supply voltage                                                        |                  |
| Load voltage L+                                                       |                  |
| Rated value (DC)                                                      | 24 V             |
| Reverse polarity protection                                           | Yes              |
| Input current                                                         |                  |
| from load voltage L+ (without load), max.                             | 80 mA            |
| from backplane bus 3.3 V DC, max.                                     | 10 mA            |
| Power losses                                                          |                  |
| Power loss, typ.                                                      | 1.9 W            |
| Address area                                                          |                  |
| Address space per module                                              |                  |
| Address space per module, max.                                        | 4 byte           |
| Analog inputs                                                         |                  |
| Number of analog inputs                                               | 2                |
| permissible input voltage for voltage input (destruction limit), max. | 35 V ; Permanent |
| Cycle time (all channels) max.                                        | 250 µs           |
| Input ranges                                                          |                  |
| Voltage                                                               | Yes              |

|                                                                     |                                                                |
|---------------------------------------------------------------------|----------------------------------------------------------------|
| Current                                                             | No                                                             |
| Thermocouple                                                        | No                                                             |
| Resistance thermometer                                              | No                                                             |
| Resistance                                                          | No                                                             |
| Input ranges (rated values), voltages                               |                                                                |
| 1 to 5 V                                                            | Yes                                                            |
| Input resistance (1 to 5 V)                                         | 120 k $\Omega$                                                 |
| -10 V to +10 V                                                      | Yes                                                            |
| Input resistance (-10 V to +10 V)                                   | 120 k $\Omega$                                                 |
| -2.5 V to +2.5 V                                                    | Yes                                                            |
| Input resistance (-2.5 V to +2.5 V)                                 | 120 k $\Omega$                                                 |
| -5 V to +5 V                                                        | Yes                                                            |
| Input resistance (-5 V to +5 V)                                     | 120 k $\Omega$                                                 |
| Cable length                                                        |                                                                |
| Cable length, shielded, max.                                        | 200 m                                                          |
| Analog value creation                                               |                                                                |
| Integrations and conversion time/ resolution per channel            |                                                                |
| Resolution with overrange (bit including sign), max.                | 16 bit ; 15 bits: 1 to 5 V; +/-2.5 V; 16 bits: +/-10 V; +/-5 V |
| Smoothing of measured values                                        |                                                                |
| 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                                          |
| Encoder                                                             |                                                                |
| Connection of signal encoders                                       |                                                                |
| for voltage measurement                                             | Yes                                                            |
| Errors/accuracies                                                   |                                                                |
| Linearity error (relative to input area)                            | +/- 0,03 %                                                     |
| Temperature error (relative to input area)                          | +/- 0,01 %/K                                                   |
| Crosstalk between the inputs, min.                                  | -50 dB                                                         |
| Repeat accuracy in settled status at 25 °C (relative to input area) | +/- 0,1 %                                                      |
| Operational limit in overall temperature range                      |                                                                |
| Voltage, relative to input area                                     | +/- 0,3 %                                                      |
| Basic error limit (operational limit at 25 °C)                      |                                                                |
| Voltage, relative to input area                                     | +/- 0,2 %                                                      |
| Isochronous mode                                                    |                                                                |
| Isochronous operation (application synchronized up to terminal)     | Yes                                                            |

|                                                  |                                                      |
|--------------------------------------------------|------------------------------------------------------|
| <b>Interrupts/diagnostics/status information</b> |                                                      |
| <b>Alarms</b>                                    |                                                      |
| Hardware interrupt                               | Yes                                                  |
| <b>Diagnostic messages</b>                       |                                                      |
| Diagnostic functions                             | Yes                                                  |
| Diagnostic information readable                  | Yes                                                  |
| Wire break                                       | Yes ; At 1 to 5 V                                    |
| Group error                                      | Yes                                                  |
| Overflow/underflow                               | Yes                                                  |
| <b>Diagnostics indication LED</b>                |                                                      |
| Group error SF (red)                             | Yes                                                  |
| <b>Parameter</b>                                 |                                                      |
| Remark                                           | 12 bytes, 4 bytes in compatibility mode              |
| Measurement type/range                           | Deactivated / +/-5 V / 1 to 5 V / +/-10 V / +/-2.5 V |
| Group diagnostics                                | Disable / enable                                     |
| Overflow/underflow                               | Disable / enable                                     |
| <b>Galvanic isolation</b>                        |                                                      |
| <b>Galvanic isolation analog inputs</b>          |                                                      |
| between the channels                             | No                                                   |
| between the channels and the backplane bus       | Yes                                                  |
| between the channels and the load voltage L+     | Yes                                                  |
| <b>Isolation</b>                                 |                                                      |
| Isolation checked with                           | 500 V DC                                             |
| <b>Dimensions</b>                                |                                                      |
| Width                                            | 15 mm                                                |
| Module width, max.                               | 15 mm                                                |
| Height                                           | 81 mm                                                |
| Depth                                            | 52 mm                                                |
| <b>Weight</b>                                    |                                                      |
| Weight, approx.                                  | 45 g                                                 |
| Status                                           | Mar 4, 2013                                          |