



Figure similar

SIMATIC DP, Electronics module f. ET200 PRO, 4 AI TC High Feature, TC type B, E, J, K, L, N, R, S,T Voltage +/-80 mV, Channel diagnostics, incl. bus module, Connection module IO 6ES7194-4..00-0AA0 order separately

| Supply voltage                                                        |                                                              |
|-----------------------------------------------------------------------|--------------------------------------------------------------|
| Rated value (DC)                                                      | 24 V                                                         |
| Reverse polarity protection                                           | Yes; against destruction                                     |
| Input current                                                         |                                                              |
| from supply voltage 1L+, max.                                         | 34 mA; Typical                                               |
| from backplane bus 3.3 V DC, max.                                     | 20 mA; Typical                                               |
| Power loss                                                            |                                                              |
| Power loss, typ.                                                      | 0.7 W                                                        |
| Address area                                                          |                                                              |
| Address space per module                                              |                                                              |
| • Address space per module, max.                                      | 8 byte                                                       |
| Analog inputs                                                         |                                                              |
| Number of analog inputs                                               | 4                                                            |
| permissible input voltage for voltage input (destruction limit), max. | 20 V                                                         |
| Cycle time (all channels) max.                                        | Number of active channels per module x basic conversion time |
| Technical unit for temperature measurement adjustable                 | Yes; °C/°F/K                                                 |
| Input ranges (rated values), voltages                                 |                                                              |
| • -80 mV to +80 mV                                                    | Yes                                                          |
| — Input resistance (-80 mV to +80 mV)                                 | 10 MΩ                                                        |
| Input ranges (rated values), thermocouples                            |                                                              |
| • type B                                                              | Yes                                                          |
| — Input resistance (Type B)                                           | 10 MΩ                                                        |
| • Type E                                                              | Yes                                                          |
| — Input resistance (Type E)                                           | 10 MΩ                                                        |
| • Type J                                                              | Yes                                                          |
| — Input resistance (type J)                                           | 10 MΩ                                                        |
| • Type K                                                              | Yes                                                          |
| — Input resistance (Type K)                                           | 10 MΩ                                                        |
| • Type L                                                              | Yes                                                          |
| — Input resistance (Type L)                                           | 10 MΩ                                                        |
| • Type N                                                              | Yes                                                          |
| — Input resistance (Type N)                                           | 10 MΩ                                                        |
| • Type R                                                              | Yes                                                          |
| — Input resistance (Type R)                                           | 10 MΩ                                                        |
| • Type S                                                              | Yes                                                          |
| — Input resistance (Type S)                                           | 10 MΩ                                                        |
| • Type T                                                              | Yes                                                          |

|                                                                                                 |                                                      |
|-------------------------------------------------------------------------------------------------|------------------------------------------------------|
| — Input resistance (Type T)                                                                     | 10 MΩ                                                |
| <b>Thermocouple (TC)</b>                                                                        |                                                      |
| Temperature compensation                                                                        |                                                      |
| — internal temperature compensation                                                             | Yes                                                  |
| — external temperature compensation with compensations socket                                   | Yes                                                  |
| <b>Cable length</b>                                                                             |                                                      |
| • shielded, max.                                                                                | 30 m                                                 |
| <b>Analog value generation for the inputs</b>                                                   |                                                      |
| Measurement principle                                                                           | integrating                                          |
| Integration and conversion time/resolution per channel                                          |                                                      |
| • Resolution with overrange (bit including sign), max.                                          | 15 bit; + sign                                       |
| • Integration time (ms)                                                                         | 2,5 / 16,67 / 20 / 100 ms                            |
| • Interference voltage suppression for interference frequency f1 in Hz                          | 10 / 50 / 60 / 400 Hz                                |
| • Conversion time (per channel)                                                                 | 4.7/19/22/102 ms                                     |
| Smoothing of measured values                                                                    |                                                      |
| • Parameterizable                                                                               | Yes                                                  |
| • Step: None                                                                                    | Yes; 1x cycle time                                   |
| • Step: low                                                                                     | Yes; 4x cycle time                                   |
| • Step: Medium                                                                                  | Yes; 16x cycle time                                  |
| • Step: High                                                                                    | Yes; 64x cycle time                                  |
| <b>Encoder</b>                                                                                  |                                                      |
| Connection of signal encoders                                                                   |                                                      |
| • for voltage measurement                                                                       | Yes                                                  |
| <b>Errors/accuracies</b>                                                                        |                                                      |
| Linearity error (relative to input range), (+/-)                                                | 0.01 %                                               |
| Temperature error (relative to input range), (+/-)                                              | 0.0004 %/K; Positive temperature                     |
| Crosstalk between the inputs, min.                                                              | -90 dB; max.                                         |
| Repeat accuracy in steady state at 25 °C (relative to input range), (+/-)                       | 0.01 %                                               |
| Operational error limit in overall temperature range                                            |                                                      |
| • Voltage, relative to input range, (+/-)                                                       | 0.12 %; Positive temperature                         |
| Basic error limit (operational limit at 25 °C)                                                  |                                                      |
| • Voltage, relative to input range, (+/-)                                                       | 0.1 %                                                |
| Interference voltage suppression for $f = n \times (f1 \pm 1 \%)$ , f1 = interference frequency |                                                      |
| • Series mode interference (peak value of interference < rated value of input range), min.      | 42 dB                                                |
| • Common mode interference (USS < 2.5 V), min.                                                  | 85 dB; Interference voltage < 10 V                   |
| <b>Interrupts/diagnostics/status information</b>                                                |                                                      |
| Diagnostics function                                                                            | Yes                                                  |
| <b>Alarms</b>                                                                                   |                                                      |
| • Diagnostic alarm                                                                              | Yes; Parameterizable                                 |
| • Hardware interrupt                                                                            | No                                                   |
| <b>Diagnoses</b>                                                                                |                                                      |
| • Diagnostic information readable                                                               | Yes                                                  |
| • Wire break                                                                                    | Yes                                                  |
| • Overflow/Underflow                                                                            | Yes                                                  |
| <b>Diagnostics indication LED</b>                                                               |                                                      |
| • Group error SF (red)                                                                          | Yes                                                  |
| <b>Parameter</b>                                                                                |                                                      |
| Comparison point                                                                                | None/internal/RTD(0)/dyn. ref. temp./fix. ref. temp. |
| <b>Potential separation</b>                                                                     |                                                      |
| Potential separation analog inputs                                                              |                                                      |
| • between the channels                                                                          | No                                                   |
| • between the channels and backplane bus                                                        | Yes                                                  |
| <b>Permissible potential difference</b>                                                         |                                                      |
| between the inputs (UCM)                                                                        | 20 Vpp AC                                            |
| <b>Isolation</b>                                                                                |                                                      |
| Isolation tested with                                                                           | 707 V DC (type test)                                 |

| Standards, approvals, certificates              |        |                                                                    |                |
|-------------------------------------------------|--------|--------------------------------------------------------------------|----------------|
| Suitable for applications according to AMS 2750 |        | Yes; Declaration of Conformity, see online support entry 109757262 |                |
| Suitable for applications according to CQI-9    |        | Yes; Based on AMS 2750 E                                           |                |
| Dimensions                                      |        |                                                                    |                |
| Width                                           |        | 45 mm                                                              |                |
| Height                                          |        | 130 mm                                                             |                |
| Depth                                           |        | 35 mm                                                              |                |
| Weights                                         |        |                                                                    |                |
| Weight, approx.                                 |        | 150 g                                                              |                |
| Classifications                                 |        |                                                                    |                |
|                                                 |        | Version                                                            | Classification |
|                                                 | eClass | 16                                                                 | 27-24-26-01    |
|                                                 | eClass | 14                                                                 | 27-24-26-01    |
|                                                 | eClass | 12                                                                 | 27-24-26-01    |
|                                                 | eClass | 9.1                                                                | 27-24-26-01    |
|                                                 | eClass | 9                                                                  | 27-24-26-01    |
|                                                 | eClass | 8                                                                  | 27-24-26-01    |
|                                                 | eClass | 7.1                                                                | 27-24-26-01    |
|                                                 | eClass | 6                                                                  | 27-24-26-01    |
|                                                 | ETIM   | 10                                                                 | EC001596       |
|                                                 | ETIM   | 9                                                                  | EC001596       |
|                                                 | ETIM   | 8                                                                  | EC001596       |
|                                                 | ETIM   | 7                                                                  | EC001596       |
|                                                 | IDEA   | 4                                                                  | 3562           |
|                                                 | UNSPSC | 15                                                                 | 32-15-17-05    |
| Approvals / Certificates                        |        |                                                                    |                |
| General Product Ap-<br>proval                   | other  |                                                                    |                |

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