



\*\*\* Spare part \*\*\* SIMATIC DP, Electronics module for ET 200S, 4 AI TC, +/-80 mV; 15 mm width, 15 bit+sign with SF LED (group fault)

| General information                                                   |                                                              |
|-----------------------------------------------------------------------|--------------------------------------------------------------|
| Product function                                                      |                                                              |
| • Isochronous mode                                                    | No                                                           |
| 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                                                        |
| Power loss                                                            |                                                              |
| 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                                                            |
| permissible input voltage for voltage input (destruction limit), max. | 10 V; Permanent                                              |
| Cycle time (all channels) max.                                        | Number of active channels per module x basic conversion time |
| Technical unit for temperature measurement adjustable                 | No; Celsius                                                  |
| Input ranges (rated values), voltages                                 |                                                              |
| • -80 mV to +80 mV                                                    | Yes                                                          |
| — Input resistance (-80 mV to +80 mV)                                 | 1 MΩ                                                         |
| Input ranges (rated values), thermocouples                            |                                                              |
| • type B                                                              | Yes                                                          |
| — Input resistance (Type B)                                           | 1 MΩ                                                         |
| • Type E                                                              | Yes                                                          |
| — Input resistance (Type E)                                           | 1 MΩ                                                         |
| • Type J                                                              | Yes                                                          |
| — Input resistance (type J)                                           | 1 MΩ                                                         |
| • Type K                                                              | Yes                                                          |
| — Input resistance (Type K)                                           | 1 MΩ                                                         |
| • Type L                                                              | Yes                                                          |
| — Input resistance (Type L)                                           | 1 MΩ                                                         |
| • Type N                                                              | Yes                                                          |
| — Input resistance (Type N)                                           | 1 MΩ                                                         |
| • Type R                                                              | Yes                                                          |
| — Input resistance (Type R)                                           | 1 MΩ                                                         |

|                                                                                                                                                                                                                                                                                                           |                                                                                                                                             |         |                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------|
| <ul style="list-style-type: none"><li>• Type S<ul style="list-style-type: none"><li>— Input resistance (Type S)</li></ul></li><li>• Type T<ul style="list-style-type: none"><li>— Input resistance (Type T)</li></ul></li></ul>                                                                           | Yes<br>1 MΩ<br>Yes<br>1 MΩ                                                                                                                  |         |                |
| Thermocouple (TC)                                                                                                                                                                                                                                                                                         |                                                                                                                                             |         |                |
| Temperature compensation                                                                                                                                                                                                                                                                                  |                                                                                                                                             |         |                |
| <ul style="list-style-type: none"><li>— internal temperature compensation</li><li>— external temperature compensation with compensations socket</li></ul>                                                                                                                                                 | Not possible<br>Yes; possible, one external compensating box per channel                                                                    |         |                |
| Characteristic linearization                                                                                                                                                                                                                                                                              |                                                                                                                                             |         |                |
| <ul style="list-style-type: none"><li>• Parameterizable</li></ul>                                                                                                                                                                                                                                         | Yes; Type B, E, J, K, L, N, R, S, T to IEC 584                                                                                              |         |                |
| Cable length                                                                                                                                                                                                                                                                                              |                                                                                                                                             |         |                |
| <ul style="list-style-type: none"><li>• shielded, max.</li></ul>                                                                                                                                                                                                                                          | 50 m                                                                                                                                        |         |                |
| Analog value generation for the inputs                                                                                                                                                                                                                                                                    |                                                                                                                                             |         |                |
| Measurement principle                                                                                                                                                                                                                                                                                     | integrating                                                                                                                                 |         |                |
| Integration and conversion time/resolution per channel                                                                                                                                                                                                                                                    |                                                                                                                                             |         |                |
| <ul style="list-style-type: none"><li>• Resolution with overrange (bit including sign), max.</li><li>• Integration time, parameterizable</li><li>• Integration time (ms)</li><li>• Interference voltage suppression for interference frequency f1 in Hz</li><li>• Conversion time (per channel)</li></ul> | 16 bit; 15 bit + sign<br>Yes<br>16,7 / 20 ms<br>50 / 60 Hz<br>65 ms; 55 / 65 ms (additional 20 ms on activated wire-break test)             |         |                |
| Smoothing of measured values                                                                                                                                                                                                                                                                              |                                                                                                                                             |         |                |
| <ul style="list-style-type: none"><li>• Parameterizable</li><li>• Step: None</li><li>• Step: low</li><li>• Step: Medium</li><li>• Step: High</li></ul>                                                                                                                                                    | Yes; In four stages by means of digital filtering<br>Yes; 1x cycle time<br>Yes; 4x cycle time<br>Yes; 32x cycle time<br>Yes; 64x cycle time |         |                |
| Encoder                                                                                                                                                                                                                                                                                                   |                                                                                                                                             |         |                |
| Connection of signal encoders                                                                                                                                                                                                                                                                             |                                                                                                                                             |         |                |
| <ul style="list-style-type: none"><li>• for voltage measurement</li></ul>                                                                                                                                                                                                                                 | Yes                                                                                                                                         |         |                |
| Errors/accuracies                                                                                                                                                                                                                                                                                         |                                                                                                                                             |         |                |
| Operational error limit in overall temperature range                                                                                                                                                                                                                                                      |                                                                                                                                             |         |                |
| <ul style="list-style-type: none"><li>• Voltage, relative to input range, (+/-)</li></ul>                                                                                                                                                                                                                 | 0.6 %                                                                                                                                       |         |                |
| Basic error limit (operational limit at 25 °C)                                                                                                                                                                                                                                                            |                                                                                                                                             |         |                |
| <ul style="list-style-type: none"><li>• Voltage, relative to input range, (+/-)</li></ul>                                                                                                                                                                                                                 | 0.4 %                                                                                                                                       |         |                |
| Interrupts/diagnostics/status information                                                                                                                                                                                                                                                                 |                                                                                                                                             |         |                |
| Diagnoses                                                                                                                                                                                                                                                                                                 |                                                                                                                                             |         |                |
| <ul style="list-style-type: none"><li>• Diagnostic information readable</li><li>• Wire break</li><li>• Group error</li><li>• Overflow/Underflow</li></ul>                                                                                                                                                 | Yes<br>Yes; A break in the wire is only detected for thermocouples<br>Yes<br>Yes                                                            |         |                |
| Diagnostics indication LED                                                                                                                                                                                                                                                                                |                                                                                                                                             |         |                |
| <ul style="list-style-type: none"><li>• Group error SF (red)</li></ul>                                                                                                                                                                                                                                    | Yes                                                                                                                                         |         |                |
| Potential separation                                                                                                                                                                                                                                                                                      |                                                                                                                                             |         |                |
| Potential separation analog inputs                                                                                                                                                                                                                                                                        |                                                                                                                                             |         |                |
| <ul style="list-style-type: none"><li>• between the channels</li><li>• between the channels and backplane bus</li><li>• Between the channels and load voltage L+</li></ul>                                                                                                                                | No<br>Yes<br>Yes                                                                                                                            |         |                |
| Isolation                                                                                                                                                                                                                                                                                                 |                                                                                                                                             |         |                |
| Isolation tested with                                                                                                                                                                                                                                                                                     | 500 V DC                                                                                                                                    |         |                |
| Dimensions                                                                                                                                                                                                                                                                                                |                                                                                                                                             |         |                |
| Width                                                                                                                                                                                                                                                                                                     | 15 mm                                                                                                                                       |         |                |
| Height                                                                                                                                                                                                                                                                                                    | 81 mm                                                                                                                                       |         |                |
| Depth                                                                                                                                                                                                                                                                                                     | 52 mm                                                                                                                                       |         |                |
| Weights                                                                                                                                                                                                                                                                                                   |                                                                                                                                             |         |                |
| Weight, approx.                                                                                                                                                                                                                                                                                           | 40 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 Approval

[Manufacturer Declaration](#)


[Miscellaneous](#)

[Metrological Approval](#)

General Product Approval

EMV



[China RoHS](#)




For use in hazardous locations


[FM](#)


[Miscellaneous](#)


For use in hazardous locations

Maritime application


[CCC-Ex](#)





Maritime application

[NK / Nippon Kaiji Kyokai](#)


[CCS \(China Classification Society\)](#)

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