



\*\*\* Spare part \*\*\* SIMATIC DP, Electronics module ET 200S 4AI standard I-2-wire, 4-20 mA; 13 bit, 15 mm width, for 2-wire transducer Cycle time 40 ms/module with SF LED (group fault)

| General information                                                                                                                                                                                                                                                                  |                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| Product function                                                                                                                                                                                                                                                                     |                                                                  |
| <ul style="list-style-type: none"> <li>• Isochronous mode</li> </ul>                                                                                                                                                                                                                 | No                                                               |
| Supply voltage                                                                                                                                                                                                                                                                       |                                                                  |
| Load voltage L+                                                                                                                                                                                                                                                                      |                                                                  |
| <ul style="list-style-type: none"> <li>• Rated value (DC)</li> <li>• Reverse polarity protection</li> </ul>                                                                                                                                                                          | 24 V; From power module<br>Yes                                   |
| Input current                                                                                                                                                                                                                                                                        |                                                                  |
| from load voltage L+ (without load), max.                                                                                                                                                                                                                                            | 125 mA                                                           |
| from backplane bus 3.3 V DC, max.                                                                                                                                                                                                                                                    | 10 mA                                                            |
| Output voltage                                                                                                                                                                                                                                                                       |                                                                  |
| Power supply to the transmitters                                                                                                                                                                                                                                                     |                                                                  |
| <ul style="list-style-type: none"> <li>• present</li> <li>• short-circuit proof</li> </ul>                                                                                                                                                                                           | Yes<br>Yes; approx. 200 mA for module                            |
| Power loss                                                                                                                                                                                                                                                                           |                                                                  |
| Power loss, typ.                                                                                                                                                                                                                                                                     | 0.6 W                                                            |
| Address area                                                                                                                                                                                                                                                                         |                                                                  |
| Address space per module                                                                                                                                                                                                                                                             |                                                                  |
| <ul style="list-style-type: none"> <li>• Address space per module, max.</li> </ul>                                                                                                                                                                                                   | 8 byte                                                           |
| Analog inputs                                                                                                                                                                                                                                                                        |                                                                  |
| Number of analog inputs                                                                                                                                                                                                                                                              | 4                                                                |
| permissible input current for current input (destruction limit), max.                                                                                                                                                                                                                | 30 mA; limited electronically                                    |
| Cycle time (all channels) max.                                                                                                                                                                                                                                                       | 40 ms; 33 to 40 ms                                               |
| Input ranges (rated values), currents                                                                                                                                                                                                                                                |                                                                  |
| <ul style="list-style-type: none"> <li>• 4 mA to 20 mA</li> </ul>                                                                                                                                                                                                                    | Yes; Into 25 Ohm                                                 |
| Cable length                                                                                                                                                                                                                                                                         |                                                                  |
| <ul style="list-style-type: none"> <li>• shielded, max.</li> </ul>                                                                                                                                                                                                                   | 200 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 <math>f_1</math> in Hz</li> </ul> | 13 bit; 4 to 20 mA: 13 bit<br>Yes<br>16,67 / 20 ms<br>50 / 60 Hz |
| Smoothing of measured values                                                                                                                                                                                                                                                         |                                                                  |
| <ul style="list-style-type: none"> <li>• parameterizable</li> <li>• Step: None</li> </ul>                                                                                                                                                                                            | Yes; in 4 stages<br>Yes; 1x cycle time                           |

- Step: low Yes; 4x cycle time
- Step: Medium Yes; 16x cycle time
- Step: High Yes; 32x cycle time

#### Encoder

##### Connection of signal encoders

- for current measurement as 2-wire transducer  
— Burden of 2-wire transmitter, max. 750 Ω

#### Errors/accuracies

##### Operational error limit in overall temperature range

- Current, relative to input range, (+/-) 0.4 %

##### Basic error limit (operational limit at 25 °C)

- Current, relative to input range, (+/-) 0.3 %

#### Interrupts/diagnostics/status information

##### Diagnoses

- Wire break Yes; Measuring range 1 to 5 V only
- Group error Yes
- Overflow/Underflow Yes

##### Diagnostics indication LED

- Group error SF (red) Yes

#### Parameter

|                        |        |
|------------------------|--------|
| Remark                 | 7 byte |
| Diagnostics wire break | 1      |
| Group diagnostics      | 1      |
| Overflow/Underflow     | 1      |

#### Potential separation

##### Potential separation analog inputs

- between the channels No
- between the channels and backplane bus Yes
- Between the channels and load voltage L+ No

#### 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 | 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

[Miscellaneous](#)

[Manufacturer Declaration](#)



[Metrological Approval](#)

General Product Approval

EMV



[China RoHS](#)



For use in hazardous locations



[Miscellaneous](#)

For use in hazardous locations

Maritime application

[CCC-Ex](#)



[NK / Nippon Kaiji Kyokai](#)

Maritime application



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

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