



SIMATIC DP, Electronics module for ET 200S, 2 AO U High Speed, 15 mm width, +/-10 V, +/-5 V, 1.. 5V; 16 bit, Cycle time: 0.1ms with SF LED (group fault)

| General information   |   |
|---|---|
| Product function  |   |
| <ul style="list-style-type: none"> <li>• Isochronous mode</li> </ul>  | Yes   |
| Supply voltage  |   |
| Load voltage L+   |   |
| <ul style="list-style-type: none"> <li>• Rated value (DC)</li> </ul>  | 24 V; From power module   |
| <ul style="list-style-type: none"> <li>• Reverse polarity protection</li> </ul>   | Yes   |
| Input current   |   |
| from load voltage L+ (without load), max.   | 130 mA  |
| from backplane bus 3.3 V DC, max.   | 10 mA   |
| Power loss  |   |
| Power loss, typ.  | 2.2 W   |
| Address area  |   |
| Address space per module  |   |
| <ul style="list-style-type: none"> <li>• Address space per module, max.</li> </ul>  | 4 byte  |
| Analog outputs  |   |
| Number of analog outputs  | 2   |
| Voltage output, short-circuit protection  | Yes   |
| Voltage output, short-circuit current, max.   | 25 mA   |
| Cycle time (all channels) max.  | 0.25 ms   |
| Output ranges, voltage  |   |
| <ul style="list-style-type: none"> <li>• 1 V to 5 V</li> </ul>  | Yes   |
| <ul style="list-style-type: none"> <li>• -5 V to +5 V</li> </ul>  | Yes   |
| <ul style="list-style-type: none"> <li>• -10 V to +10 V</li> </ul>  | Yes   |
| Connection of actuators   |   |
| <ul style="list-style-type: none"> <li>• for voltage output two-wire connection</li> </ul>  | Yes; Without compensation of the line resistances                             |
| <ul style="list-style-type: none"> <li>• for voltage output four-wire connection</li> </ul>   | Yes   |
| Load impedance (in rated range of output)   |   |
| <ul style="list-style-type: none"> <li>• with voltage outputs, min.</li> </ul>  | 1 k $\Omega$  |
| <ul style="list-style-type: none"> <li>• with voltage outputs, capacitive load, max.</li> </ul>   | 1 $\mu$ F; 0.1 $\mu$ F for Twa=0.1 ms   |
| Destruction limits against externally applied voltages and currents   |   |
| <ul style="list-style-type: none"> <li>• Voltages at the outputs towards MANA</li> </ul>  | 15 V; Max. 15 V for max. 5 hours, 75 V for max. 1 s                           |
| <ul style="list-style-type: none"> <li>• current / at the analog outputs / as destruction limit for externally applied voltage / maximum permissible</li> </ul> | 30 mA; DC   |
| Cable length  |   |
| <ul style="list-style-type: none"> <li>• shielded, max.</li> </ul>  | 200 m; Max. 20 m for TWA 100 $\mu$ s  |
| Analog value generation for the outputs   |   |
| Integration and conversion time/resolution per channel  |   |
| <ul style="list-style-type: none"> <li>• Resolution with overrange (bit including sign), max.</li> </ul>  | 16 bit; 1 to 5 V: 14 bit, $\pm$ 10 V: 15 bit + sign, $\pm$ 5 V: 14 bit + sign |
| Settling time   |   |

- for resistive load 0.05 ms
- for capacitive load 0.05 ms
- for inductive load 0.05 ms

#### Errors/accuracies

Operational error limit in overall temperature range

- Voltage, relative to output range, (+/-) 0.2 %

Basic error limit (operational limit at 25 °C)

- Voltage, relative to output range, (+/-) 0.01 %

#### Interrupts/diagnostics/status information

Diagnoses

- Diagnostic information readable Yes
- Wire-break No
- Short-circuit Yes
- Group error Yes

Diagnostics indication LED

- Group error SF (red) Yes

#### Parameter

|                             |  |
|-----------------------------|--|
| Remark                      | 7 byte   |
| Diagnostics short-circuit   | Disable / enable   |
| Group diagnostics           | Disable / enable   |
| Response to CPU/master STOP | Output current and de-energized/substitute a value/keep last value |

#### Potential separation

Potential separation analog outputs

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

#### Isolation

Isolation tested with 500 V DC

#### Dimensions

|        |       |
|--------|-------|
| Width  | 15 mm |
| Height | 81 mm |
| Depth  | 52 mm |

#### Weights

Weight, approx. 40 g

last modified: 9/6/2023 