

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)



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.	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	
• Address space per module, max.	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	
• 1 V to 5 V	Yes
• -5 V to +5 V	Yes
• -10 V to +10 V	Yes
Connection of actuators	
• for voltage output two-wire connection	Yes; Without compensation of the line resistances
• for voltage output four-wire connection	Yes
Load impedance (in rated range of output)	
• with voltage outputs, min.	1 k Ω
• with voltage outputs, capacitive load, max.	1 μ F; 0.1 μ F for Twa=0.1 ms
Destruction limits against externally applied voltages and currents	
• Voltages at the outputs towards MANA	15 V; Max. 15 V for max. 5 hours, 75 V for max. 1 s
• Current, max.	30 mA; DC
Cable length	
• shielded, max.	200 m; Max. 20 m for TWA 100 μ s
Analog value generation for the outputs	
Integration and conversion time/resolution per channel	
• Resolution with overrange (bit including sign), max.	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	
Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-)	0.02 %
Linearity error (relative to output range), (+/-)	0.03 %
Temperature error (relative to output range), (+/-)	0.01 %/K
Crosstalk between the outputs, min.	60 dB
Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)	0.03 %
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 %
Isochronous mode	
Isochronous operation (application synchronized up to terminal)	Yes
Interrupts/diagnostics/status information	
Substitute values connectable	Yes; 0 to 65535 (range of values must be within the rated range)
Diagnostic messages	

- 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
Output type/range	deactivated / 1 to 5 V / ± 10 V / ± 5 V
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

Permissible potential difference

between MANA and M internally (UISO)	75 V DC/60 V AC
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Isolation

Isolation tested with	500 V DC
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Dimensions

Width	15 mm
Height	81 mm
Depth	52 mm

Weights

Weight, approx.	40 g
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last modified: 05/09/2019