

SIMATIC DP, Electronics module 2 AO U High Feature for ET 200S, 15 mm width, Cycle time per module: 0.5 ms, +/-10V; 15 bit+sign, 1..5V; 15 bit, Operational limit +/-0.07% with SF LED (group fault)



Supply voltage

Load voltage L+

- | | |
|-------------------------------|------|
| • Rated value (DC) | 24 V |
| • Reverse polarity protection | Yes |

Input current

- | | |
|---|-------|
| from load voltage L+ (without load), max. | 80 mA |
| from backplane bus 3.3 V DC, max. | 10 mA |

Power loss

- | | |
|------------------|-------|
| Power loss, max. | 1.2 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. | 0.5 ms; At max. 0.5 μ F |

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
• 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.	0.5 μ F
Destruction limits against externally applied voltages and currents	
• Voltages at the outputs towards MANA	15 V; max. 15 V continuous; 75 V for max. 1 s (mark to space ratio 1:20)
Cable length	
• shielded, max.	200 m; 100m if Twa < 2ms
Analog value generation for the outputs	
Integration and conversion time/resolution per channel	
• Resolution with overrange (bit including sign), max.	16 bit; 15 bit + sign
Settling time	
• for resistive load	0.2 ms
• for capacitive load	0.5 ms; At max. 0.5 μ F
• for inductive load	0.5 ms
Errors/accuracies	
Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-)	0.02 %
Linearity error (relative to output range), (+/-)	0.01 %
Crosstalk between the outputs, min.	60 dB
Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)	0.01 %
Operational error limit in overall temperature range	
• Voltage, relative to output range, (+/-)	0.1 %
Basic error limit (operational limit at 25 °C)	
• Voltage, relative to output range, (+/-)	0.05 %
Isochronous mode	
Isochronous operation (application synchronized up to terminal)	Yes
Interrupts/diagnostics/status information	
Substitute values connectable	Yes
Diagnostic messages	
• Diagnostic information readable	Yes

• 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

Isolation	
Isolation tested with	500 V DC

Dimensions	
Width	15 mm
Height	81 mm
Depth	52 mm

Weights	
Weight, approx.	40 g

last modified: 05/09/2019