

SIMATIC DP, ELECT. SUBMODULE FOR ET200IS, 2 AO, 0(4) - 20mA



Input current	
From load voltage L+ (no load), typ.	280 mA
Power loss	
Power loss, typ.	2.5 W
Analog outputs	
Number of analog outputs	2
Current output, no-load voltage, max.	17 V
Cycle time (all channels) max.	3.5 ms
Output ranges, current	
• 0 to 20 mA	Yes
• 4 mA to 20 mA	Yes
Connection of actuators	
• for current output two-wire connection	Yes
Load impedance (in rated range of output)	
• with current outputs, max.	750 Ω
Cable length	
• shielded, max.	200 m

Analog value generation for the outputs

Integration and conversion time/resolution per channel	
• Resolution with overrange (bit including sign), max.	14 bit
• Conversion time (per channel)	2.5 ms
Settling time	
• for resistive load	40 ms
• for capacitive load	40 ms
• for inductive load	40 ms

Errors/accuracies

Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-)	0.05 %
Linearity error (relative to output range), (+/-)	0.02 %
Temperature error (relative to output range), (+/-)	0.01 %/K
Crosstalk between the outputs, min.	-50 dB
Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)	0.05 %
Operational error limit in overall temperature range	
• Current, relative to output range, (+/-)	0.2 %
Basic error limit (operational limit at 25 °C)	
• Current, relative to output range, (+/-)	0.1 %

Interrupts/diagnostics/status information

Diagnostic functions	Yes; Diagnostic information readable
Substitute values connectable	Yes; Parameterizable
Alarms	
• Diagnostic alarm	Yes; Parameterizable
Diagnostic messages	
• Wire-break	Yes; from min. output value 1 mA, wire break message at max. 20 kOhm
• Short-circuit	Yes; Monitoring starting at output value min. 1 mA, short-circuit alarm at max. 30 to 60 ohms
Diagnostics indication LED	
• Group error SF (red)	Yes

Parameter

Diagnostics wire break	R > 30 kOhms
Diagnostics short-circuit	R < 30 kOhms

Potential separation

Potential separation analog outputs	
• between the channels	No; Distances of positive outputs for 30 V
• between the channels and backplane bus	Yes; Distances for 60 V according to EN 50 020

- Between the channels and load voltage L+

Yes; (Distances for 60 V in accordance with EN 50 020); between the load voltage (power bus) and the backplane bus: Yes (distances for 30 V in accordance with EN 50 020)

Permissible potential difference

between the outputs (UCM) 60 V DC/30 V AC

Isolation

Isolation tested with 500 V AC

Standards, approvals, certificates

Use in hazardous areas

- Type of protection acc. to EN 50020 (CENELEC)
- Type of protection acc. to FM

II2(1)G EEx ib[ia] IIC T4; Tu = -20 °C to +60 °C (module); II2 G EEx ia IIC (input; (Tu = +60°C for horizontal mounting)

Available soon: FM 3611: Class I, Division 2, Group A-D, Class I, Zone 2 or FM 3610: Class I, Zone 1, Tu = -20 °C to +60 °C

Dimensions

Width 30 mm

Height 81 mm

Depth 76 mm

Weights

Weight, approx. 120 g

last modified: 03/07/2017