



SIMATIC DP, ELECTRONIC MODULE FOR ET 200S, 2 AO I 15 MM WIDE, +/-20 mA; 13 BIT + SIGN, 4 . .20 mA; 13 BIT CYCLE TIME < 1 MS WITH LED SF (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.	150 mA
from backplane bus 3.3 V DC, max.	10 mA
Power losses	
Power loss, max.	2 W
Address area	
Address space per module	
• Address space per module, max.	4 byte
Analog outputs	
Number of analog outputs	2
Current output, no-load voltage, max.	18 V
Cycle time (all channels) max.	1.5 ms
Output ranges, current	
• -20 mA to +20 mA	Yes
• 4 mA to 20 mA	Yes
Connection of actuators	
• for current output two-wire connection	Yes
• for current output four-wire connection	No
Load impedance (in rated range of output)	

• with current outputs, max.	500 Ω
• with current outputs, inductive load, max.	1 mH
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)
• Current, max.	50 mA; DC
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; 4 to 20 mA: 13 bits, +/-20 mA: 14 bits
Settling time	
• for resistive load	0.1 ms
• for capacitive load	0.5 ms
• for inductive load	0.5 ms
Errors/accuracies	
Output ripple (based on output area, bandwidth 0 to 50 kHz), (+/-)	0.02 %
Linearity error (relative to output range), (+/-)	0.02 %
Temperature error (relative to output range), (+/-)	0.01 %/K
Repeat accuracy in steady state at 25 °C (relative to output area), (+/-)	0.05 %
Operational limit in overall temperature range	
• Current, relative to output area, (+/-)	0.5 %
Basic error limit (operational limit at 25 °C)	
• Current, relative to output area, (+/-)	0.3 %
Interrupts/diagnostics/status information	
Substitute values connectable	Yes; 0 to 65535 (range of values must be within the rated range)
Diagnostic messages	
• Wire break	Yes
• Group error	Yes
Diagnostics indication LED	
• Group error SF (red)	Yes
Parameter	
Remark	7 byte
Output type/range	deactivated / +/-20 mA / 4 to 20 mA
Diagnosis: wire break	Disable / enable
Group diagnostics	Disable / enable
Behavior on CPU/Master STOP	Output current and de-energized/substitute a value/keep last value

Ex(i) characteristics

Max. values of output circuits (per channel)

- U_o (output no-load voltage), max. 18 V

Potential separation

Galvanic isolation analog outputs

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

Permissible potential difference

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

Dimensions

Width	15 mm
Height	81 mm
Depth	52 mm

Weights

Weight, approx. 40 g

last modified: 20.04.2015