

SIMATIC DP, ELECTRONIC MODULE ANALOG,
FOR ET 200B, W=160MM, 4AO 0(4)...20mA;
+/- 10V, 11 BIT, 12 MBIT/S

Supply voltage	
permissible range, lower limit (DC)	18.5 V
permissible range, upper limit (DC)	30.2 V
Load voltage 1L+	
Rated value (DC)	24 V ; Value at t < 0.5 s: 35 V
Input current	
from supply voltage L+, max.	200 mA ; Logic
Power loss	
Power loss, typ.	2.4 W
Hardware configuration	
Rack	
required terminal block	TB8
Analog outputs	
Number of analog outputs	4
Voltage output, short-circuit protection	Yes ; Electronic; max. 1 output in parallel
Voltage output, short-circuit current, max.	25 mA
Current output, no-load voltage, max.	18 V
Output ranges, voltage	
0 to 10 V	Yes
-10 to +10 V	Yes
Output ranges, current	
0 to 20 mA	Yes
4 to 20 mA	Yes
Connection of actuators	
for voltage output two-wire connection	Yes
for voltage output four-wire connection	Yes
for current output two-wire connection	Yes
Load impedance (in rated range of output)	
with current outputs, max.	300 Ω
with current outputs, inductive load, max.	1 mH
Cable length	

Cable length, shielded, max.	100 m
Analog value generation	
Integration and conversion time/resolution per channel	
Resolution with overrange (bit including sign), max.	11 bit ; Two's complement
Conversion time (per channel)	1 ms
Settling time	
for resistive load	0.1 ms
for capacitive load	3.3 ms
for inductive load	0.5 ms
Errors/accuracies	
Output ripple (based on output area, bandwidth 0 to 50 kHz), (+/-)	0.05 %
Linearity error (relative to output range), (+/-)	0.05 %
Temperature error (relative to output range), (+/-)	0.02 %/K
Crosstalk between the outputs, min.	40 dB
Repeat accuracy in steady state at 25 °C (relative to output area), (+/-)	0.05 %
Operational error limit in overall temperature range	
Voltage, relative to output area, (+/-)	0.05 %
Current, relative to output area, (+/-)	1 %
Basic error limit (operational limit at 25 °C)	
Voltage, relative to output area, (+/-)	0.2 %
Current, relative to output area, (+/-)	0.3 %
Interfaces	
PROFIBUS DP	
Transmission rate, max.	12 Mbit/s
Communication functions	
Bus protocol/transmission protocol	PROFIBUS DP
Interrupts/diagnostics/status information	
Alarms	
Diagnostic alarm	Yes ; Parameterizable
Diagnostics indication LED	
Bus fault BF (red)	Yes
Run mode RUN (green)	Yes
Galvanic isolation	
between electronic block and PROFIBUS DP	Yes
Galvanic isolation analog outputs	
Galvanic isolation analog outputs	No
Degree and class of protection	

IP20	Yes
Ambient conditions	
Operating temperature	
horizontal installation, min.	0 °C
horizontal installation, max.	60 °C ; 40°C for other mountings
Air pressure	
permissible range, min.	795 hPa
permissible range, max.	1080 hPa
Relative humidity	
Operation, min.	15 %
Operation, max.	95 % ; RH class 2 in accordance with IEC 1131-2
Vibrations	
Operation, tested according to IEC 60068-2-6	Yes ; IEC 68, Part 2-6; 10 to 57 Hz; (constant amplitude 0.075 mm); 57 to 150 Hz; (constant acceleration 1 g)
Shock test	
tested according to IEC 60068-2-27	Yes ; IEC 68, Part 2-27; half-sine, 15 g, 11 ms
Connection method	
Inputs/outputs	Screw-type and spring-loaded terminals, permanent wiring; 3 and 4-wire connection
Dimensions	
Width	160 mm ; EB and TB
Height	130 mm ; EB and TB
Depth	60 mm ; EB and TB
Weights	
Weight, approx.	550 g ; EB and TB
Status	Jul 7, 2014