



SIMATIC DP,
ELECTRONIC MODULE FOR ET 200S, 2 AO U,
15 MM WIDTH, +/-10 V;
13 BIT + SIGN, 1..5V;
12BIT,
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.	130 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
Voltage output, short-circuit protection	Yes
Voltage output, short-circuit current, max.	25 mA
Cycle time (all channels) max.	1.5 ms
Output ranges, voltage	

1 to 5 V	Yes
-10 to +10 V	Yes
Connection of actuators	
for voltage output 2-conductor connection	Yes ; Without compensation of the line resistances
for voltage output 4-conductor connection	Yes
Load impedance (in rated range of output)	
with voltage outputs, min.	1 kΩ
with voltage outputs, capacitive load, max.	1 μF
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	
Cable length, shielded, max.	200 m
Analog value creation	
Integrations and conversion time/ resolution per channel	
Resolution with overrange (bit including sign), max.	14 bit ; 1 to 5 V: 12 bits, +/-10 V: 13 bits + sign
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 area)	+/- 0,02 %
Temperature error (relative to output area)	+/- 0,01 %/K
Repeat accuracy in settled status at 25 °C (relative to output area)	+/- 0,05 %
Operational limit in overall temperature range	
Voltage, relative to output area	+/- 0,4 %
Basic error limit (operational limit at 25 °C)	
Voltage, relative to output area	+/- 0,2 %
Interrupts/diagnostics/status information	
Substitute values connectable	Yes ; 0 to 65535 (range of values must be within the rated range)
Diagnostic messages	
Short circuit	Yes
Group error	Yes
Diagnostics indication LED	
Group error SF (red)	Yes
Parameter	

Remark	7 bytes
Output type/range	deactivated / 1 to 5 V / +/- 10 V
Diagnosis: short circuit	Disable / enable
Group diagnostics	Disable / enable
Behavior on CPU/Master STOP	Output current and de-energized/substitute a value/keep last value
Galvanic isolation	
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)	75 VDC / 60 VAC
Dimensions	
Width	15 mm
Height	81 mm
Depth	52 mm
Weight	
Weight, approx.	40 g
Status	Feb 11, 2013