SIEMENS

SIMATIC DP,
ELECTRONIC MODULE FOR ET 200S,
2 AO I 15 MM WIDE, +/-20 MA;
13 BIT + SIGN, 4 . .20 MA;
12 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 loss	
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 to +20 mA	Yes
4 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	
Cable length, shielded, max.	200 m

Analog value generation	
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
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	
Current, relative to output area, (+/-)	0.5 %
Basic error limit (operational limit at 25 °C)	
Current, relative to output area, (+/-)	0.3 %

Isochronous mode	
Isochronous mode (application synchronized up to terminal)	No

Interrupts/diagnostics/status information	
Substitute values connectable	Yes ; 0 to 65535 (range of values must be within the rated range)
Diagnostic messages	
Diagnostic functions	Yes ; Can be read out
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
Diagnostics wire break	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
Isolation	
Isolation tested with	500 V DC
Dimensions	
Width	15 mm
Height	81 mm
Depth	52 mm
Weights	
Weight, approx.	40 g
Status	Jul 23, 2014