

SIMATIC DP, ELECTRONIC MODULE 2 AO I HIGH FEATURE FOR ET 200S, 15 MM WIDE, CYCLE TIME PER MODULE: 0.5MS, +/- 20MA; 15 BIT + SIGN, 4 .. 20MA; 15 BIT, OPERATIONAL LIMITS +/- 0.05% WITH LED SF (GROUP FAULT)



Supply voltage	
Load voltage L+	
• Rated value (DC)	24 V
• Reverse polarity protection	Yes
Input current	
from load voltage L+ (without load), max.	80 mA
from backplane bus 3.3 V DC, max.	10 mA
Power loss	
Power loss, max.	1.2 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.	0.5 ms
Output ranges, current	

• -20 mA to +20 mA	Yes
• 4 mA to 20 mA	Yes
<b>Connection of actuators</b>	
• for current output two-wire connection	Yes
• for current output four-wire connection	No
<b>Load impedance (in rated range of output)</b>	
• with current outputs, max.	500 $\Omega$
• with current outputs, inductive load, max.	1 mH
<b>Destruction limits against externally applied voltages and currents</b>	
• Current, max.	50 mA
<b>Cable length</b>	
• shielded, max.	200 m; 100m if $T_{wa} < 2ms$
<b>Analog value generation for the outputs</b>	
<b>Integration and conversion time/resolution per channel</b>	
• Resolution with overrange (bit including sign), max.	16 bit
<b>Settling time</b>	
• for resistive load	0.3 ms
• for capacitive load	1 ms
• for inductive load	0.5 ms
<b>Errors/accuracies</b>	
Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-)	0.02 %
Linearity error (relative to output range), (+/-)	0.01 %
Temperature error (relative to output range), (+/-)	0.003 %/K
Crosstalk between the outputs, min.	60 dB
Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)	0.01 %
<b>Operational error limit in overall temperature range</b>	
• Current, relative to output range, (+/-)	0.1 %
<b>Basic error limit (operational limit at 25 °C)</b>	
• Current, relative to output range, (+/-)	0.05 %
<b>Isochronous mode</b>	
Isochronous operation (application synchronized up to terminal)	Yes
<b>Interrupts/diagnostics/status information</b>	
Substitute values connectable	Yes
<b>Diagnostic messages</b>	
• Diagnostic information readable	Yes
• Wire-break	Yes
• Group error	Yes

<b>Diagnostics indication LED</b>	
• Group error SF (red)	Yes

<b>Parameter</b>	
Remark	7 byte
Diagnostics wire break	Disable / enable
Output type/range	deactivated / +/-20 mA / 4 to 20 mA
Group diagnostics	Disable / enable
Response to CPU/master STOP	Output current and de-energized/substitute a value/keep last value

<b>Potential separation</b>	
<b>Potential separation analog outputs</b>	
• between the channels	No
• between the channels and backplane bus	Yes
• Between the channels and load voltage L+	Yes

<b>Permissible potential difference</b>	
between MANA and M internally (UISO)	75 V DC/60 V AC

<b>Isolation</b>	
Isolation tested with	500 V DC

<b>Dimensions</b>	
Width	15 mm
Height	81 mm
Depth	52 mm

<b>Weights</b>	
Weight, approx.	40 g
<b>last modified:</b>	03/07/2017