



SIMATIC DP, ELECTRONIC MODULE FOR ET200S, 2 AO U HIGH SPEED, 15 MM WIDTH, +/-10V, +/-5V, 1.. 5V; 16BIT, CYCLE TIME: 0.1 MS WITH LED SF (GROUP FAULT)

Supply voltage	
Load voltage L+	
<ul style="list-style-type: none"> <li>Rated value (DC)</li> </ul>	24 V; From power module
<ul style="list-style-type: none"> <li>Reverse polarity protection</li> </ul>	Yes
Input current	
from load voltage L+ (without load), max.	100 mA
from backplane bus 3.3 V DC, max.	10 mA
Power losses	
Power loss, max.	2 W
Address area	
Address space per module	
<ul style="list-style-type: none"> <li>Address space per module, max.</li> </ul>	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.	0.25 ms
Output ranges, voltage	
<ul style="list-style-type: none"> <li>1 V to 5 V</li> </ul>	Yes
<ul style="list-style-type: none"> <li>-10 V to +10 V</li> </ul>	Yes; +/-5V as well
Connection of actuators	
<ul style="list-style-type: none"> <li>for voltage output two-wire connection</li> </ul>	Yes; Without compensation of the line resistances
<ul style="list-style-type: none"> <li>for voltage output four-wire connection</li> </ul>	Yes

<b>Load impedance (in rated range of output)</b>	
• with voltage outputs, min.	1 k $\Omega$
• with voltage outputs, capacitive load, max.	1 $\mu$ F; 0.1 $\mu$ F for Twa=0.1 ms
<b>Destruction limits against externally applied voltages and currents</b>	
• Voltages at the outputs towards MANA	15 V; Max. 15 V for max. 5 hours, 75 V for max. 1 s
• Current, max.	30 mA; DC
<b>Cable length</b>	
• shielded, max.	200 m; Max. 20 m for TWA 100 $\mu$ s
<b>Analog value creation</b>	
<b>Integration and conversion time/resolution per channel</b>	
• Resolution with overrange (bit including sign), max.	16 bit; 1 to 5 V: 14 bits, +/-10 V: 15 bit + sign, +/-5 V: 14 bits + sign
<b>Settling time</b>	
• for resistive load	0.05 ms
• for capacitive load	0.05 ms
• for inductive load	0.05 ms
<b>Errors/accuracies</b>	
Output ripple (based on output area, bandwidth 0 to 50 kHz), (+/-)	0.02 %
Linearity error (relative to output range), (+/-)	0.03 %
Temperature error (relative to output range), (+/-)	0.01 %/K
Crosstalk between the outputs, min.	60 dB
Repeat accuracy in steady state at 25 °C (relative to output area), (+/-)	0.03 %
<b>Operational limit in overall temperature range</b>	
• Voltage, relative to output area, (+/-)	0.2 %
<b>Basic error limit (operational limit at 25 °C)</b>	
• Voltage, relative to output area, (+/-)	0.01 %
<b>Isochronous mode</b>	
Isochronous operation (application synchronized up to terminal)	Yes
<b>Interrupts/diagnostics/status information</b>	
Substitute values connectable	Yes; 0 to 65535 (range of values must be within the rated range)
<b>Diagnostic messages</b>	
• Diagnostic functions	Yes
• Diagnostic information readable	Yes
• Wire break	No
• Short circuit	Yes
• Group error	Yes
<b>Diagnostics indication LED</b>	
• Group error SF (red)	Yes

Parameter	
Remark	7
Output type/range	deactivated / 1 to 5 V / +/- 10 V / +/- 5 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)	75V DC/60V AC

Dimensions	
Width	15 mm
Height	81 mm
Depth	52 mm

Weights	
Weight, approx.	40 g
<b>last modified:</b>	12.03.2015