

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+	
<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.	130 mA
from backplane bus 3.3 V DC, max.	10 mA
Power loss	
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.	1.5 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
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
Load impedance (in rated range of output)	
<ul style="list-style-type: none"> <li>with voltage outputs, min.</li> </ul>	1 k $\Omega$
<ul style="list-style-type: none"> <li>with voltage outputs, capacitive load, max.</li> </ul>	1 $\mu$ F
Destruction limits against externally applied voltages and currents	
<ul style="list-style-type: none"> <li>Voltages at the outputs towards MANA</li> </ul>	15 V; max. 15 V continuous; 75 V for max. 1 s (mark to space ratio 1:20)
<ul style="list-style-type: none"> <li>Current, max.</li> </ul>	50 mA; DC
Cable length	
<ul style="list-style-type: none"> <li>shielded, max.</li> </ul>	200 m
Analog value generation for the outputs	

Integration and conversion time/resolution per channel	
<ul style="list-style-type: none"> <li>Resolution with overrange (bit including sign), max.</li> </ul>	14 bit; 1 to 5 V: 12 bits, $\pm 10$ V: 13 bits + sign
Settling time	
<ul style="list-style-type: none"> <li>for resistive load</li> </ul>	0.1 ms
<ul style="list-style-type: none"> <li>for capacitive load</li> </ul>	0.5 ms
<ul style="list-style-type: none"> <li>for inductive load</li> </ul>	0.5 ms
Errors/accuracies	
Output ripple (relative to output range, 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 range), (+/-)	0.05 %
Operational error limit in overall temperature range	
<ul style="list-style-type: none"> <li>Voltage, relative to output range, (+/-)</li> </ul>	0.4 %
Basic error limit (operational limit at 25 °C)	
<ul style="list-style-type: none"> <li>Voltage, relative to output range, (+/-)</li> </ul>	0.2 %
Isochronous mode	
Isochronous operation (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	
<ul style="list-style-type: none"> <li>Short-circuit</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Group error</li> </ul>	Yes
Diagnostics indication LED	
<ul style="list-style-type: none"> <li>Group error SF (red)</li> </ul>	Yes
Parameter	
Remark	7 byte
Diagnostics short-circuit	Disable / enable
Output type/range	deactivated / 1 to 5 V / $\pm 10$ V
Group diagnostics	Disable / enable
Response to CPU/master STOP	Output current and de-energized/substitute a value/keep last value
Potential separation	
Potential separation analog outputs	
<ul style="list-style-type: none"> <li>between the channels</li> </ul>	No
<ul style="list-style-type: none"> <li>between the channels and backplane bus</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Between the channels and load voltage L+</li> </ul>	Yes

### Permissible potential difference

between MANA and M internally (UISO)	75 V DC/60 V AC
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### Isolation

Isolation tested with	500 V DC
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### Dimensions

Width	15 mm
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Height	81 mm
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Depth	52 mm
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### Weights

Weight, approx.	40 g
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<b>last modified:</b>	04/19/2018
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