

SIMATIC DP, Electronic modules for ET 200 PRO 4 AO I High Feature, +-20 mA; 0...20 mA; 4-20mA; Channel diagnostics; incl. bus module, Connection module IO 6ES7194-4..00-0AA0 order separately



Figure similar

Supply voltage	
Rated value (DC)	24 V
Reverse polarity protection	Yes; against destruction
Input current	
from supply voltage 1L+, max.	110 mA
from backplane bus 3.3 V DC, max.	10 mA
Actuator supply	
Number of outputs	4
Short-circuit protection	Yes; per module
Output current	
<ul style="list-style-type: none"> up to 55 °C, max. 	1 A
Power loss	
Power loss, typ.	2.3 W
Address area	
Address space per module	
<ul style="list-style-type: none"> Address space per module, max. 	8 byte

Analog outputs	
Number of analog outputs	4
Voltage output, short-circuit protection	Yes; per module, electronic to frame
Current output, no-load voltage, max.	16 V
Cycle time (all channels) max.	3 ms
Output ranges, current	
• 0 to 20 mA	Yes
• -20 mA to +20 mA	Yes
• 4 mA to 20 mA	Yes
Connection of actuators	
• for current output two-wire connection	Yes
• for current output four-wire connection	Yes
Load impedance (in rated range of output)	
• with current outputs, max.	600 Ω
• with current outputs, inductive load, max.	1 mH
Destruction limits against externally applied voltages and currents	
• Current, max.	100 mA
Cable length	
• shielded, max.	30 m
Analog value generation for the outputs	
Integration and conversion time/resolution per channel	
• Resolution with overrange (bit including sign), max.	15 bit; at ± 20 mA; 14 bit at 0 to 20 mA; 15 bit at 4 to 20 mA
• Conversion time (per channel)	0.7 ms
Settling time	
• for resistive load	0.1 ms
• for inductive load	1 ms
Errors/accuracies	
Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-)	0.02 %
Linearity error (relative to output range), (+/-)	0.1 %
Temperature error (relative to output range), (+/-)	0.01 %/K
Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)	0.05 %
Operational error limit in overall temperature range	
• Current, relative to output range, (+/-)	0.2 %
Basic error limit (operational limit at 25 °C)	
• Current, relative to output range, (+/-)	0.15 %
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Substitute values connectable	Yes

Alarms

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|----------------------|----------------------|
| • Diagnostic alarm | Yes; Parameterizable |
| • Hardware interrupt | No |

Diagnostic messages

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|-----------------------------------|-------------------------------------|
| • Diagnostic information readable | Yes |
| • Wire-break | Yes; per channel, not in zero range |
| • Short-circuit | No |

Diagnostics indication LED

- | | |
|------------------------|-----|
| • Group error SF (red) | Yes |
|------------------------|-----|

Parameter

Diagnostics short-circuit	Encoder supply to M
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Potential separation

Potential separation analog outputs

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|--|-----|
| • between the channels | No |
| • between the channels and backplane bus | Yes |

Isolation

Isolation tested with	707 V DC (type test)
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Dimensions

Width	45 mm
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Height	130 mm
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Depth	35 mm
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Weights

Weight, approx.	150 g
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last modified:	10/24/2018
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