

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	
• up to 55 °C, max.	1 A
Power loss	
Power loss, typ.	2.3 W
Address area	
Address space per module	
• 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 $\Omega$
• 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 $\pm 20$ 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	
• Diagnostic alarm	Yes; Parameterizable
• Hardware interrupt	No
Diagnostic messages	
• Diagnostic information readable	Yes
• Wire-break	Yes; per channel, not in zero range
• Short-circuit	No
Diagnostics indication LED	
• Group error SF (red)	Yes
Potential separation	
Potential separation analog outputs	
• between the channels	No
• between the channels and backplane bus	Yes
Isolation	
Isolation tested with	707 V DC (type test)
Dimensions	
Width	45 mm
Height	130 mm
Depth	35 mm
Weights	
Weight, approx.	150 g
<b>last modified:</b>	05/09/2020