

SIMATIC DP, ELECTRONIC MODULE FOR ET200PRO 4 AI I HIGH FEATURE, +-20MA; 0...20MA; 4-20MA CHANNEL DIAGNOSTICS; INCLUSIVE BUS MODULE CONNECTING MODULE IO 6ES7194-4..00-0AA0 MUST BE ORDERED SEPERATELY



Supply voltage	
Rated value (DC)	24 V
Reverse polarity protection	Yes; against destruction
Input current	
from supply voltage 1L+, max.	40 mA; Typical
from backplane bus 3.3 V DC, max.	12 mA; Typical
Encoder supply	
Number of outputs	4
Short-circuit protection	Yes; per module, electronic to frame
Output current	
• up to 55 °C, max.	1 A
Power loss	
Power loss, typ.	1.1 W
Address area	
Address space per module	
• Address space per module, max.	8 byte
Analog inputs	

Number of analog inputs	4
permissible input current for current input (destruction limit), max.	40 mA
Cycle time (all channels) max.	10 ms
Input ranges	
• Voltage	No
• Current	Yes
• Thermocouple	No
• Resistance thermometer	No
• Resistance	No
Input ranges (rated values), currents	
• 0 to 20 mA	Yes
• -20 mA to +20 mA	Yes
• 4 mA to 20 mA	Yes
Cable length	
• shielded, max.	30 m
Analog value generation for the inputs	
Measurement principle	integrating
Integration and conversion time/resolution per channel	
• Resolution with overrange (bit including sign), max.	15 bit; 15 bits + sign at ± 10 V, at ± 5 V; 15 bits at 0 V to 10 V, at 1 V to 5 V
• Integration time (ms)	0,3 / 16,7 / 20 / 60
• Interference voltage suppression for interference frequency f_1 in Hz	16,67 / 50 / 60 / 3 600
• Conversion time (per channel)	1.1 ms
Smoothing of measured values	
• parameterizable	Yes
• Step: None	Yes; 1 x cycle time
• Step: low	Yes; 4 x cycle time
• Step: Medium	Yes; 16 x cycle time
• Step: High	Yes; 64 x cycle time
Errors/accuracies	
Linearity error (relative to input range), (+/-)	0.0075 %
Temperature error (relative to input range), (+/-)	0.00075 %/K
Crosstalk between the inputs, min.	-70 dB
Repeat accuracy in steady state at 25 °C (relative to input range), (+/-)	0.004 %
Operational error limit in overall temperature range	
• Current, relative to input range, (+/-)	0.1 %
Basic error limit (operational limit at 25 °C)	
• Current, relative to input range, (+/-)	0.075 %
Interference voltage suppression for $f = n \times (f_1 \pm 0.5 \%)$, f_1 = interference frequency	

- Series mode interference (peak value of interference < rated value of input range), min.
- Common mode interference (USS < 2.5 V) , min.

60 dB

80 dB; Interference voltage < 5 V

Interrupts/diagnostics/status information

Diagnostic functions

Yes

Alarms

- Diagnostic alarm
- Hardware interrupt

Yes; Parameterizable

Yes; (limit value alarm), can be parameterized for channel 0

Diagnostic messages

- Diagnostic information readable
- Wire-break
- Short-circuit

Yes

Yes; at 4 to 20 mA

Yes; at 4 to 20 mA

Diagnostics indication LED

- Group error SF (red)

Yes

Potential separation

Potential separation analog inputs

- between the channels
- between the channels and backplane bus

No

Yes

Permissible potential difference

Between the inputs and MANA (UCM)

5 Vpp AC

Isolation

Isolation tested with

707 V DC (type test)

Dimensions

Width

45 mm

Height

130 mm

Depth

35 mm

Weights

Weight, approx.

150 g

last modified:

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