

SIMATIC DP, ELECTRONIC MODULE ET200S: 2AI HIGH SPEED I-2WIRE, 0 - 20MA, 4 - 20MA, 15BIT, 15 MM WIDTH, FOR 2-WIRE TRANSDUCER, CYCLE TIME OF THE MOD.: 0.1MS, WITH LED SF (GROUP FAULT)



Figure similar

Supply voltage	
Load voltage L+	
• Rated value (DC)	24 V
• Short-circuit protection	Yes
• Reverse polarity protection	Yes
Input current	
from load voltage L+ (without load), max.	225 mA
from backplane bus 3.3 V DC, max.	10 mA
Output voltage	
Power supply to the transmitters	
• present	Yes
• short-circuit proof	Yes
Power loss	
Power loss, typ.	2.5 W
Address area	
Address space per module	
• Address space per module, max.	4 byte

## Analog inputs

Number of analog inputs	2
Cycle time (all channels) max.	0.25 ms
<b>Input ranges</b>	
• Voltage	No
• Current	Yes
• Thermocouple	No
• Resistance thermometer	No
• Resistance	No
<b>Input ranges (rated values), currents</b>	
• 0 to 20 mA	Yes
• Input resistance (0 to 20 mA)	106 $\Omega$
• 4 mA to 20 mA	Yes
<b>Cable length</b>	
• shielded, max.	200 m

## Analog value generation for the inputs

<b>Integration and conversion time/resolution per channel</b>	
• Resolution with overrange (bit including sign), max.	16 bit
<b>Smoothing of measured values</b>	
• 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; 32 x cycle time

## Encoder

<b>Connection of signal encoders</b>	
• for current measurement as 2-wire transducer	Yes

## Errors/accuracies

Linearity error (relative to full-scale), (+/-)	0.03 %
Temperature error (relative to full-scale), (+/-)	0.01 %/K
Crosstalk between the inputs, min.	50 dB
Repeat accuracy in steady state at 25 °C (relative to full-scale), (+/-)	0.1 %
<b>Operational error limit in overall temperature range</b>	
• Current, relative to full-scale, (+/-)	0.3 %
<b>Basic error limit (operational limit at 25 °C)</b>	
• Current, relative to full-scale, (+/-)	0.2 %

## Isochronous mode

Isochronous operation (application synchronized up to terminal)	Yes
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## Interrupts/diagnostics/status information

### Alarms

- Hardware interrupt Yes

### Diagnostic messages

- Wire-break Yes; at 4 to 20 mA
- Group error Yes
- Overflow/underflow Yes

### Diagnostics indication LED

- Group error SF (red) Yes

## Parameter

Diagnostics wire break	At 4 to 20 mA
Measurement type/range	4 to 20 mA, 0 to 20 mA
Group diagnostics	1
Overflow/underflow	1

## Potential separation

### Potential separation analog inputs

- between the channels No
- between the channels and backplane bus Yes
- Between the channels and load voltage L+ Yes

## Permissible potential difference

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

Width	15 mm
Height	81 mm
Depth	52 mm

**last modified:** 14.05.2016