



SIMATIC DP, ELECTRONIC MODULE ET 200S: 2AI HIGH SPEED I-4WIRE 4 - 20mA; 16BIT, 15 MM WIDTH, FOR 4-WIRE TRANSDUCER, CYCLE TIME OF MODULE: 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.	80 mA; without load
from backplane bus 3.3 V DC, max.	10 mA

### Output voltage

#### Power supply to the transmitters

• present	Yes
• short-circuit proof	Yes

### Encoder supply

Number of outputs	2
Type of output voltage	24 V
short-circuit protection	Yes

#### Output current

• nominal	80 mA; Per channel
• permissible range	0 to 90 mA

### Power losses

Power loss, typ.	1.9 W
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### Address area

Address space per module	
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- Address space per module, max. 4 byte

## Analog inputs

Number of analog inputs	2
permissible input current for current input (destruction limit), max.	30 mA
Cycle time (all channels) max.	250 $\mu$ s
<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 $\Omega$
• -20 mA to +20 mA	Yes
• 4 mA to 20 mA	Yes
<b>Cable length</b>	
• shielded, max.	200 m

## Analog value creation

<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	No

## Errors/accuracies

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

- Current, relative to input area, (+/-) 0.2 %

### Isochronous mode

Isochronous operation (application synchronized up to terminal) Yes

### Interrupts/diagnostics/status information

#### Alarms

- Hardware interrupt Yes

#### Diagnostic messages

- Diagnostic functions Yes
- Diagnostic information readable Yes
- Wire break Yes; Measuring range 4 to 20 mA only
- Group error Yes
- Overflow/underflow Yes

#### Diagnostics indication LED

- Group error SF (red) Yes

### Parameter

Diagnosis: wire break At 4 to 20 mA  
 Measurement type/range 4 to 20 mA, 0 to 20 mA, +/-20 mA  
 Group diagnostics Yes  
 Overflow/underflow Yes

### Galvanic isolation

#### Galvanic isolation analog inputs

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

### Permissible potential difference

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

### Dimensions

Width 15 mm  
 Height 81 mm  
 Depth 52 mm

### Weights

Weight, approx. 45 g

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