

SIMATIC DP, Electronics module ET200S: 2AI High Speed I-2-wire 0-20 mA; 4.. 20mA, 15 bit, 15 mm width, for 2-wire transducer Cycle time of module: 0.1 ms, with SF LED (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
Input ranges (rated values), currents	
• 0 to 20 mA	Yes
• Input resistance (0 to 20 mA)	106 Ω
• 4 mA to 20 mA	Yes
Cable length	
• shielded, max.	200 m
Analog value generation for the inputs	
Integration and conversion time/resolution per channel	
• Resolution with overrange (bit including sign), max.	16 bit
Smoothing of measured values	
• parameterizable	Yes
• Step: None	Yes; 1x cycle time
• Step: low	Yes; 4x cycle time
• Step: Medium	Yes; 16x cycle time
• Step: High	Yes; 32x cycle time
Encoder	
Connection of signal encoders	
• for current measurement as 2-wire transducer	Yes
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 range), (+/-)	0.1 %
Operational error limit in overall temperature range	
• Current, relative to input range, (+/-)	0.3 %
Basic error limit (operational limit at 25 °C)	
• Current, relative to input range, (+/-)	0.2 %
Isochronous mode	
Isochronous operation (application synchronized up to terminal)	Yes
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: 05/09/2019