

SIMATIC DP, Electronics module 2 AI I High Feature for ET 200S, 15 mm width, Cycle time per module: 0.5 ms, +/-20mA; 15 bit+sign, 4..20mA; 15 bit, Operational limit +/-0.1% with SF LED (group fault)



General information	
Product function	
• Isochronous mode	Yes
Supply voltage	
Load voltage L+	
• Rated value (DC)	24 V
• Reverse polarity protection	Yes
Input current	
from load voltage L+ (without load), max.	48 mA
from backplane bus 3.3 V DC, max.	10 mA
Output voltage	
Power supply to the transmitters	
• present	Yes
Power loss	
Power loss, typ.	1.2 W
Address area	
Address space per module	

- Address space per module, max. 4 byte

### Analog inputs

Number of analog inputs	2
permissible input current for current input (destruction limit), max.	50 mA
Cycle time (all channels) max.	0.5 ms; 0.5 ms for 2 channels without noise suppression, 18 / 21 ms per channel with noise suppression
<b>Input ranges (rated values), currents</b>	
• -20 mA to +20 mA	Yes
• 4 mA to 20 mA	Yes
<b>Cable length</b>	
• shielded, max.	200 m

### Analog value generation for the inputs

Measurement principle	Sigma Delta
<b>Integration and conversion time/resolution per channel</b>	
• Resolution with overrange (bit including sign), max.	16 bit
• Interference voltage suppression for interference frequency f1 in Hz	60 / 50 Hz / no
• Conversion time (per channel)	0.04 ms; Without noise suppression 17/20 ms per channel with error
<b>Smoothing of measured values</b>	
• parameterizable	Yes; In 4 stages: 1x, 4x, 16x, 32x cycle time
• Step: None	Yes; 1x
• Step: low	Yes; 4x
• Step: Medium	Yes; 16x
• Step: High	Yes; 32x

### Errors/accuracies

<b>Operational error limit in overall temperature range</b>	
• Current, relative to input range, (+/-)	0.1 %; 0.2% without interference frequency suppression
<b>Basic error limit (operational limit at 25 °C)</b>	
• Current, relative to input range, (+/-)	0.05 %; 0.1% without interference frequency suppression

### Interrupts/diagnostics/status information

<b>Alarms</b>	
• Hardware interrupt	Yes
<b>Diagnoses</b>	
• Wire-break	Yes; Measuring range 4 to 20 mA only
• Group error	Yes
• Overflow/underflow	Yes
<b>Diagnostics indication LED</b>	
• Group error SF (red)	Yes

Parameter	
Remark	12 bytes, 4 bytes in compatibility mode
Diagnostics wire break	Disable / enable
Measurement type/range	deactivated / $\pm 20$ mA / 4 to 20 mA
Group diagnostics	Disable / enable
Overflow/underflow	Disable / enable

Potential separation	
Potential separation analog inputs	
<ul style="list-style-type: none"> <li>• between the channels</li> <li>• between the channels and backplane bus</li> <li>• Between the channels and load voltage L+</li> </ul>	<p>No; however, increased permissible potential difference between the inputs.</p> <p>Yes</p> <p>Yes</p>

Dimensions	
Width	15 mm
Height	81 mm
Depth	52 mm

Weights	
Weight, approx.	45 g
<b>last modified:</b>	12/09/2020