

Spare part SIMATIC DP, Electronics module ET 200S: 2AI High Speed I-4WIRE 4-20 mA; 14 bit, 15 mm width, for 4-wire transmitter, Cycle time of module: 1 ms, with SF LED (group fault)



Supply voltage	
Load voltage L+	
• Rated value (DC)	24 V; From power module
• Reverse polarity protection	Yes
Input current	
from load voltage L+ (without load), max.	35 mA
from backplane bus 3.3 V DC, max.	10 mA
Encoder supply	
Number of outputs	2
Type of output voltage	L+ (-2.5 V), under load
Short-circuit protection	Yes; Electronic
Output current	
• Rated value	90 mA; both channels
• permissible range, lower limit	0 mA
• permissible range, upper limit	90 mA
Power loss	
Power loss, typ.	0.8 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.	60 mA
Cycle time (all channels) max.	1 ms; Per module
Input ranges (rated values), currents	
• Input resistance (0 to 20 mA)	0.05 k Ω
• -20 mA to +20 mA	Yes
• 4 mA to 20 mA	Yes
Cable length	
• shielded, max.	200 m
Analog value generation for the inputs	
Measurement principle	Actual value encryption
Integration and conversion time/resolution per channel	
• Resolution with overrange (bit including sign), max.	14 bit; 4 to 20 mA: 13 bit, 0 to 20 mA: 13 bit, ± 20 mA: 13 bit + sign
• Conversion time (per channel)	0.1 ms
Smoothing of measured values	
• parameterizable	Yes; In four stages by means of digital filtering
• Step: None	Yes; 1x cycle time
• Step: low	Yes; 64x cycle time
• Step: Medium	Yes; 128x cycle time
• Step: High	Yes; 512x cycle time
Encoder	
Connection of signal encoders	
• for current measurement as 2-wire transducer	Yes
— Burden of 2-wire transmitter, max.	670 Ω
Errors/accuracies	
Linearity error (relative to input range), (+/-)	0.01 %
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), (+/-)	0.05 %
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 %
Interference voltage suppression for $f = n \times (f_1 \pm 1 \%)$, f_1 = interference frequency	

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

70 dB

Isochronous mode

Isochronous operation (application synchronized up to terminal)

Yes

Interrupts/diagnostics/status information

Alarms

- Hardware interrupt

Yes; Parameterizable

Diagnostic messages

- Diagnostic information readable
- Wire-break
- Group error
- Overflow/underflow

Yes

Yes

Yes

Yes

Diagnostics indication LED

- Group error SF (red)

Yes

Parameter

Remark

12 byte

Diagnostics wire break

Disable / enable

Measurement type/range

deactivated / ± 20 mA / 0 to 20 mA / 4 to 20 mA

Group diagnostics

Disable / enable

Overflow/underflow

Disable / enable

Potential separation

Potential separation analog inputs

- between the channels
- between the channels and backplane bus
- Between the channels and load voltage L+

No

Yes

No

Permissible potential difference

between MANA and M internally (UISO)

75 V DC/60 V AC

Isolation

Isolation tested with

500 V DC

Dimensions

Width

15 mm

Height

81 mm

Depth

52 mm

Weights

Weight, approx.

40 g

last modified:

06/27/2019