

SIMATIC DP, Electronics module f. ET200S, 2AI Standard I-4DMU
 15 mm width, +/-20mA; 13 bit+sign 4.. 20mA; 12-bit for 4-wire
 transmitter Cycle time 65 ms/channel with SF LED (group fault)



General information	
Product function	
• Isochronous mode	No
Supply voltage	
Load voltage L+	
• Rated value (DC)	24 V; From power module
Input current	
from load voltage L+ (without load), max.	30 mA
from backplane bus 3.3 V DC, max.	10 mA
Power loss	
Power loss, typ.	0.6 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.	40 mA
Cycle time (all channels) max.	Number of active channels per module x basic conversion time
Input ranges (rated values), currents	
<ul style="list-style-type: none"> -20 mA to +20 mA 	Yes; 50 Ohm
<ul style="list-style-type: none"> 4 mA to 20 mA 	Yes; 50 Ohm
Cable length	
<ul style="list-style-type: none"> shielded, max. 	200 m

Analog value generation for the inputs

Measurement principle	integrating
Integration and conversion time/resolution per channel	
<ul style="list-style-type: none"> Resolution with overrange (bit including sign), max. 	14 bit; ± 20 mA: 14 bit, 4 to 20 mA: 13 bit
<ul style="list-style-type: none"> Integration time (ms) 	16,7 / 20 ms
<ul style="list-style-type: none"> Interference voltage suppression for interference frequency f1 in Hz 	50 / 60 Hz
<ul style="list-style-type: none"> Conversion time (per channel) 	65 ms; 55 / 65 ms
Smoothing of measured values	
<ul style="list-style-type: none"> parameterizable 	Yes; In four stages by means of digital filtering
<ul style="list-style-type: none"> Step: None 	Yes; 1x cycle time
<ul style="list-style-type: none"> Step: low 	Yes; 4x cycle time
<ul style="list-style-type: none"> Step: Medium 	Yes; 32x cycle time
<ul style="list-style-type: none"> Step: High 	Yes; 64x cycle time

Errors/accuracies

Operational error limit in overall temperature range	
<ul style="list-style-type: none"> Current, relative to input range, (+/-) 	0.6 %
Basic error limit (operational limit at 25 °C)	
<ul style="list-style-type: none"> Current, relative to input range, (+/-) 	0.4 %

Interrupts/diagnostics/status information

Diagnoses	
<ul style="list-style-type: none"> Wire-break 	Yes; Measuring range 4 to 20 mA only
<ul style="list-style-type: none"> Group error 	Yes
<ul style="list-style-type: none"> Overflow/underflow 	Yes
Diagnostics indication LED	
<ul style="list-style-type: none"> Group error SF (red) 	Yes

Parameter

Remark	4 byte
Diagnostics wire break	Disable / enable (only in measuring range 4 to 20 mA)
Measurement type/range	deactivated / ± 20 mA / 4 to 20 mA
Group diagnostics	Disable / enable
Overflow/underflow	Disable / enable

Potential separation

Potential separation analog inputs

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

Isolation

Isolation tested with	500 V DC
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Dimensions

Width	15 mm
Height	81 mm
Depth	52 mm

Weights

Weight, approx.	40 g
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last modified:	12/09/2020
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