

*** SPARE PART*** SIMATIC DP, ELECTRONIC MODULE FOR ET 200S, 2 AI STAND. I-4DMU 15 MM WIDE, +/-20MA; 13 BIT + SIGN,4 .. 20MA; 12 BIT FOR 4-WIRE TRANSDUCER CYCLE TIME 65 MS/CHANNEL WITH LED SF (GROUP FAULT)

Supply voltage

Load voltage L+	
<ul style="list-style-type: none"> Rated value (DC) 	24 V; From power module
<ul style="list-style-type: none"> Reverse polarity protection 	Yes

Input current

from load voltage L+ (without load), max.	30 mA
from backplane bus 3.3 V DC, max.	10 mA

Output voltage

Power supply to the transmitters	
<ul style="list-style-type: none"> present 	Yes
<ul style="list-style-type: none"> short-circuit proof 	Yes; 60 mA (for both channels)

Power loss

Power loss, typ.	0.6 W
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Address area

Address space per module	
<ul style="list-style-type: none"> 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

<ul style="list-style-type: none"> Current 	Yes
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
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Analog value generation for the inputs

Measurement principle	integrating
Integration and conversion time/resolution per channel	

• Resolution with overrange (bit including sign), max.	14 bit; +/-20 mA: 14 bits, 4 to 20 mA: 13 bits
• Integration time, parameterizable	Yes
• Integration time (ms)	16,7 / 20 ms
• Interference voltage suppression for interference frequency f1 in Hz	50 / 60 Hz
• Conversion time (per channel)	65 ms; 55 / 65 ms

Smoothing of measured values	
• parameterizable	Yes; In four stages by means of digital filtering
• Step: None	Yes; 1 x cycle time
• Step: low	Yes; 4 x cycle time
• Step: Medium	Yes; 32 x cycle time
• Step: High	Yes; 64 x cycle time

Encoder

Connection of signal encoders	
• for current measurement as 2-wire transducer — Burden of 2-wire transmitter, max.	750 Ω

Errors/accuracies

Linearity error (relative to input range), (+/-)	0.01 %
Temperature error (relative to input range), (+/-)	0.005 %/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, (+/-)	0.6 %

Basic error limit (operational limit at 25 °C)	
• Current, relative to input range, (+/-)	0.4 %

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)	No
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Interrupts/diagnostics/status information

Diagnostic messages	
• 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

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	
• 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: 03/06/2017