

*** 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+	
• Rated value (DC)	24 V; From power module
• 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	
• present	Yes
• short-circuit proof	Yes; 60 mA (for both channels)
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	
• Current	Yes
Input ranges (rated values), currents	
• -20 mA to +20 mA	Yes; 50 Ohm
• 4 mA to 20 mA	Yes; 50 Ohm
Cable length	
• shielded, max.	200 m
Analog value generation for the inputs	
Measurement principle	integrating
Integration and conversion time/resolution per channel	

• Resolution with overrange (bit including sign), max. • Integration time, parameterizable • Integration time (ms) • Interference voltage suppression for interference frequency f1 in Hz • Conversion time (per channel)	14 bit; +/-20 mA: 14 bits, 4 to 20 mA: 13 bits Yes 16,7 / 20 ms 50 / 60 Hz 65 ms; 55 / 65 ms
Smoothing of measured values	
• parameterizable • Step: None • Step: low • Step: Medium • Step: High	Yes; In four stages by means of digital filtering Yes; 1 x cycle time Yes; 4 x cycle time Yes; 32 x cycle time 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
Interrupts/diagnostics/status information	
Diagnostic messages	
• Wire-break • Group error • Overflow/underflow	Yes; Measuring range 4 to 20 mA only Yes 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: 08/12/2017