



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)

<b>Supply voltage</b>	
Load voltage L+	
Rated value (DC)	24 V ; From power module
<b>Input current</b>	
from load voltage L+ (without load), max.	30 mA
from backplane bus 3.3 V DC, max.	10 mA
<b>Power losses</b>	
Power loss, typ.	0.6 W
<b>Address area</b>	
Address space per module	
Address space per module, max.	4 byte
<b>Analog inputs</b>	
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
<b>Input ranges</b>	
Voltage	No
Current	Yes

Thermocouple	No
Resistance thermometer	No
Resistance	No
<b>Input ranges (rated values), currents</b>	
-20 to +20 mA	Yes ; 50 ohms
4 to 20 mA	Yes ; 50 ohms
<b>Cable length</b>	
Cable length, shielded, max.	200 m
<b>Analog value creation</b>	
Measurement principle	integrating
<b>Integrations and conversion time/ resolution per channel</b>	
Resolution with overrange (bit including sign), max.	14 bit ; +/-20 mA: 14 bits, 4 to 20 mA: 13 bits
Integration time, ms	16.7 / 20 ms
Interference voltage suppression for interference frequency f1 in Hz	60 / 50 Hz
Conversion time (per channel)	65 ms ; 55 / 65 ms
<b>Smoothing of measured values</b>	
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
<b>Encoder</b>	
<b>Connection of signal encoders</b>	
Burden of 2-wire transmitter, max.	750 Ω
<b>Errors/accuracies</b>	
Linearity error (relative to input area)	+/- 0,01 %
Temperature error (relative to input area)	+/- 0,005 %/K
Crosstalk between the inputs, min.	-50 dB
Repeat accuracy in settled status at 25 °C (relative to input area)	+/- 0,05 %
<b>Operational limit in overall temperature range</b>	
Current, relative to input area	+/- 0,6 %
<b>Basic error limit (operational limit at 25 °C)</b>	
Current, relative to input area	+/- 0,4 %
<b>Interference voltage suppression for <math>f = n \times (f1 \pm 1\%)</math>, f1 = interference frequency</b>	
Series mode interference (peak value of interference < rated value of input range), min.	70 dB
<b>Isochronous mode</b>	
Isochronous operation (application synchronized up to terminal)	No

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	
Diagnosis: 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
Galvanic isolation	
Galvanic isolation analog inputs	
between the channels	No
between the channels and the backplane bus	Yes
between the channels and the load voltage L+	No
Isolation	
Isolation checked with	500 V DC
Dimensions	
Width	15 mm
Height	81 mm
Depth	52 mm
Weight	
Weight, approx.	40 g
Status	Mar 18, 2013