

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 to +20 mA	Yes ; 50 Ohm
4 to 20 mA	Yes ; 50 Ohm
Cable length	
Cable length, shielded, max.	200 m
Analog value generation	
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	60 / 50 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	
Burden of 2-wire transmitter, max.	750 Ω
Errors/accuracies	
Linearity error (relative to input range), (+/-)	0.01 %
Temperature error (relative to input range), (+/-)	0.0050 %/K
Crosstalk between the inputs, min.	-50 dB
Repeat accuracy in steady state at 25 °C (relative to input area), (+/-)	0.05 %
Operational error limit in overall temperature range	
Current, relative to input area, (+/-)	0.6 %
Basic error limit (operational limit at 25 °C)	
Current, relative to input area, (+/-)	0.4 %
Interference voltage suppression for $f = n \times (f1 \pm 1 \%)$, $f1 =$ interference frequency	
Series mode interference (peak value of interference < rated value of input range), min.	70 dB
Isochronous mode	
Isochronous mode (application synchronized up to terminal)	No
Interrupts/diagnostics/status information	
Diagnostic messages	
Diagnostic functions	Yes ; Can be read out
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
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 tested with	500 V DC
Dimensions	
Width	15 mm
Height	81 mm
Depth	52 mm
Weights	
Weight, approx.	40 g
Status	Jul 23, 2014