



SIMATIC DP,
ELECTRONIC MODULE FOR ET 200S,
2 AI STANDARD 15 MM WIDE +/-10 V;
13 BIT + SIGN +/-5 V;
12 BIT+ SIGN, 1..5V;
12BIT,
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
Power losses	
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 voltage for voltage input (destruction limit), max.	35 V ; 35 V continuous; 75 V for max. 1 ms (mark to space ratio 1:20)
Cycle time (all channels) max.	Number of active channels per module x basic conversion time
Input ranges	
Voltage	Yes

Current	No
Thermocouple	No
Resistance thermometer	No
Resistance	No
Input ranges (rated values), voltages	
1 to 5 V	Yes
-10 V to +10 V	Yes
-5 V to +5 V	Yes
Cable length	
Cable length, shielded, max.	200 m
Analog value creation	
Measurement principle	integrating
Integrations and conversion time/resolution per channel	
Resolution with overrange (bit including sign), max.	14 bit ; +/-10 V: 13 bits + sign, +/-5 V: 13 bits + sign; 1 to 5 V: 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
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
Errors/accuracies	
Linearity error (relative to input range), (+/-)	0.01 %
Temperature error (relative to input area)	0,01 %/K
Crosstalk between the inputs, min.	-50 dB
Repeat accuracy in steady state at 25 °C (relative to input area), (+/-)	0.05 %
Operational limit in overall temperature range	
Voltage, relative to input area, (+/-)	0.6 %
Basic error limit (operational limit at 25 °C)	
Voltage, 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
common mode voltage (USS < 2.5 V) , min.	90 dB
Isochronous mode	

Isochronous operation (application synchronized up to terminal)	No
Interrupts/diagnostics/status information	
Diagnostic messages	
Wire break	Yes ; Measuring range 1 to 5 V only
Group error	Yes
Overflow/underflow	Yes
Diagnostics indication LED	
Group error SF (red)	Yes
Parameter	
Remark	4 byte
Diagnosis: wire break	Disable / enable (only in measuring range 1 to 5 V)
Measurement type/range	deactivated / +/-5 V / 1 to 5 V / +/-10 V
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+	Yes
Permissible potential difference	
between inputs and MANA (UCM)	2 V AC PP
between MANA and M internally (UISO)	75 VDC / 60 VAC
Isolation	
Isolation checked with	500 V DC
Dimensions	
Width	15 mm
Height	81 mm
Depth	52 mm
Weights	
Weight, approx.	40 g
Status	Apr 10, 2014