

SIMATIC DP, Electronics module for ET 200S, 2 AI Standard U 15 mm width, +/-10V; 13 bit+sign +/-5 V; 12 bit+sign, 1..5 V; 12-bit Cycle time 65 ms/channel with SF LED (group fault)



Figure similar

General information	
Product function	
• Isochronous mode	No
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 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 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 (rated values), voltages	
• 1 V to 5 V	Yes
• -10 V to +10 V	Yes
• -5 V to +5 V	Yes
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.	14 bit; ± 10 V: 13 bit + sign, ± 5 V: 13 bit + sign; 1 to 5 V: 13 bit
• Integration time, parameterizable	Yes
• Integration time (ms)	16,7 / 20 ms
• Interference voltage suppression for interference frequency f_1 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; 1x cycle time
• Step: low	Yes; 4x cycle time
• Step: Medium	Yes; 32x cycle time
• Step: High	Yes; 64x cycle time

Errors/accuracies

Operational error limit in overall temperature range	
• Voltage, relative to input range, (+/-)	0.6 %
Basic error limit (operational limit at 25 °C)	
• Voltage, relative to input range, (+/-)	0.4 %

Interrupts/diagnostics/status information

Diagnoses	
• 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
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Diagnostics 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

Potential separation

Potential separation analog inputs	
• between the channels	No
• between the channels and backplane bus	Yes
• Between the channels and load voltage L+	Yes

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: 12/09/2020