



SIMATIC DP, Electronics module 2 AI U High Feature f. ET200S, 15 mm width, Cycle time per module: 0.5 ms, +/-10V; 15 bit+sign, +/-5 V; 15 bit+sign, 1..5 V; 15 bit, Operational limit +/-0.1% with SF LED (group fault)

General information	
Product function	
<ul style="list-style-type: none"> • Isochronous mode 	Yes
Supply voltage	
Load voltage L+	
<ul style="list-style-type: none"> • Rated value (DC) 	24 V
<ul style="list-style-type: none"> • Reverse polarity protection 	Yes
Input current	
from load voltage L+ (without load), max.	55 mA
from backplane bus 3.3 V DC, max.	10 mA
output voltage / header	
supply voltage of the transmitters / header	
<ul style="list-style-type: none"> • present 	No
Power loss	
Power loss, typ.	0.85 W
Address area	
Address space per module	
<ul style="list-style-type: none"> • 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
Cycle time (all channels) max.	0.5 ms; 0.5 ms for 2 channels without noise suppression, 18 / 21 ms per channel with noise suppression
Input ranges (rated values), voltages	
<ul style="list-style-type: none"> • 1 V to 5 V <ul style="list-style-type: none"> — Input resistance (1 V to 5 V) • -10 V to +10 V <ul style="list-style-type: none"> — Input resistance (-10 V to +10 V) • -5 V to +5 V <ul style="list-style-type: none"> — Input resistance (-5 V to +5 V) 	Yes 800 kΩ Yes 800 kΩ Yes 800 kΩ
Cable length	
<ul style="list-style-type: none"> • shielded, max. 	200 m
Analog value generation for the inputs	
Integration and conversion time/resolution per channel	
<ul style="list-style-type: none"> • Resolution with overrange (bit including sign), max. • Integration time, parameterizable • Interference voltage suppression for interference frequency f1 in Hz • Conversion time (per channel) 	16 bit; 0 to 5 V: 15 bit, ±10 V: 16 bit, ±5 V: 16 bit Yes 60 / 50 Hz / no 0.04 ms; Without noise suppression 17/20 ms per channel with error
Smoothing of measured values	

<ul style="list-style-type: none"> • parameterizable • Step: None • Step: low • Step: Medium • Step: High 	Yes; In 4 stages: 1x, 4x, 16x, 32x cycle time Yes; 1x Yes; 4x Yes; 16x Yes; 32x
Encoder	
Connection of signal encoders	
<ul style="list-style-type: none"> • for voltage measurement 	Yes
Errors/accuracies	
Operational error limit in overall temperature range	
<ul style="list-style-type: none"> • Voltage, relative to input range, (+/-) 	0.1 %; 0.2% without interference frequency suppression
Basic error limit (operational limit at 25 °C)	
<ul style="list-style-type: none"> • Voltage, relative to input range, (+/-) 	0.05 %; 0.1% without interference frequency suppression
Interrupts/diagnostics/status information	
Alarms	
<ul style="list-style-type: none"> • Hardware interrupt 	Yes
Diagnoses	
<ul style="list-style-type: none"> • Wire-break • Group error • Overflow/underflow 	Yes; Measuring range 1 to 5 V only Yes Yes
Diagnostics indication LED	
<ul style="list-style-type: none"> • Group error SF (red) 	Yes
Parameter	
Remark	12 bytes, 4 bytes in compatibility mode
Group diagnostics	Disable / enable
Overflow/underflow	Disable / enable
Potential separation	
Potential separation analog inputs	
<ul style="list-style-type: none"> • between the channels • between the channels and backplane bus • Between the channels and load voltage L+ 	No; however, increased permissible potential difference between the inputs. Yes Yes
Isolation	
Isolation tested with	500 V DC
Dimensions	
Width	15 mm
Height	81 mm
Depth	52 mm
Weights	
Weight, approx.	45 g
last modified:	9/11/2023 