



SIMATIC DP, Electronic module for ET 200 PRO 4 AI U High Feature, ± 10 V; 0...10 V; ± 5 V; 1...5V; Channel diagnostics; incl. bus module, Connection module IO 6ES7194-4..00-0AA0 order separately

Supply voltage	
Rated value (DC)	24 V
Reverse polarity protection	Yes; against destruction
Input current	
from supply voltage 1L+, max.	40 mA; Typical
from backplane bus 3.3 V DC, max.	12 mA; Typical
Encoder supply	
Number of outputs	4
Short-circuit protection	Yes; per module, electronic to frame
Output current	
• up to 55 °C, max.	1 A
Power loss	
Power loss, typ.	1.1 W
Address area	
Address space per module	
• Address space per module, max.	8 byte
Analog inputs	
Number of analog inputs	4
permissible input voltage for voltage input (destruction limit), max.	35 V
Cycle time (all channels) max.	5 ms
Input ranges (rated values), voltages	
• 0 to +10 V	Yes
• 1 V to 5 V	Yes
• -10 V to +10 V	Yes
• -5 V to +5 V	Yes
Cable length	
• shielded, max.	30 m
Analog value generation for the inputs	
Measurement principle	integrating
Integration and conversion time/resolution per channel	
• Resolution with overrange (bit including sign), max.	15 bit; 15 bit + sign at ± 10 V, at ± 5 V; 15 bit at 0 V to 10 V, at 1 V to 5 V
• Integration time (ms)	0,3 / 16,7 / 20 / 60
• Interference voltage suppression for interference frequency f_1 in Hz	16,67 / 50 / 60 / 3 600
• Conversion time (per channel)	1.1 ms
Smoothing of measured values	
• parameterizable	Yes
• Step: None	Yes; 1x cycle time
• Step: low	Yes; 4x cycle time

• Step: Medium		Yes; 16x cycle time	
• Step: High		Yes; 64x cycle time	
Encoder			
Connection of signal encoders			
• for voltage measurement		Yes	
Errors/accuracies			
Linearity error (relative to input range), (+/-)		0.0075 %	
Temperature error (relative to input range), (+/-)		0.00075 %/K	
Crosstalk between the inputs, min.		-70 dB	
Repeat accuracy in steady state at 25 °C (relative to input range), (+/-)		0.004 %	
Operational error limit in overall temperature range			
• Voltage, relative to input range, (+/-)		0.1 %	
Basic error limit (operational limit at 25 °C)			
• Voltage, relative to input range, (+/-)		0.075 %	
Interference voltage suppression for f = n x (f1 +/- 0.5 %), f1 = interference frequency			
• Series mode interference (peak value of interference < rated value of input range), min.		60 dB	
• Common mode interference (USS < 2.5 V), min.		80 dB; Interference voltage < 10 V	
Interrupts/diagnostics/status information			
Diagnostics function		Yes	
Alarms			
• Diagnostic alarm		Yes; Parameterizable	
• Hardware interrupt		Yes; (limit value alarm), can be parameterized for channel 0	
Diagnoses			
• Diagnostic information readable		Yes	
• Wire-break		Yes; at 1 to 5 V	
• Short-circuit		Yes; at 1 to 5 V	
Diagnostics indication LED			
• Group error SF (red)		Yes	
Potential separation			
Potential separation analog inputs			
• between the channels		No	
• between the channels and backplane bus		Yes	
Permissible potential difference			
Between the inputs and MANA (UCM)		10 Vpp AC	
Isolation			
Isolation tested with		707 V DC (type test)	
Dimensions			
Width		45 mm	
Height		130 mm	
Depth		35 mm	
Weights			
Weight, approx.		150 g	
Classifications			
		Version	Classification
	eClass	14	27-24-26-01
	eClass	12	27-24-26-01
	eClass	9.1	27-24-26-01
	eClass	9	27-24-26-01
	eClass	8	27-24-26-01
	eClass	7.1	27-24-26-01
	eClass	6	27-24-26-01
	ETIM	10	EC001596
	ETIM	9	EC001596
	ETIM	8	EC001596
	ETIM	7	EC001596
	IDEA	4	3562

UNSPSC			15		32-15-17-05	
Approvals / Certificates						
General Product Approval				EMV		Maritime application
		Miscellaneous				
other		Environment				
Confirmation	Miscellaneous	Environmental Con- firmations		Environmental Con- firmations		

last modified:

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