



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	
<ul style="list-style-type: none"> up to 55 °C, max. 	1 A
Power loss	
Power loss, typ.	1.1 W
Address area	
Address space per module	<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> 0 to +10 V 1 V to 5 V -10 V to +10 V -5 V to +5 V 	<ul style="list-style-type: none"> Yes Yes Yes Yes
Cable length	
<ul style="list-style-type: none"> shielded, max. 	30 m
Analog value generation for the inputs	
Measurement principle	integrating
Integration and conversion time/resolution per channel	
<ul style="list-style-type: none"> Resolution with overrange (bit including sign), max. Integration time (ms) Interference voltage suppression for interference frequency f_1 in Hz Conversion time (per channel) 	<ul style="list-style-type: none"> 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 0,3 / 16,7 / 20 / 60 16,67 / 50 / 60 / 3 600 1.1 ms
Smoothing of measured values	
<ul style="list-style-type: none"> parameterizable Step: None Step: low 	<ul style="list-style-type: none"> Yes Yes; 1x cycle time 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 $f = n \times (f_1 \pm 0.5 \%)$, $f_1 =$ 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

Approvals / Certificates

General Product Approval



[Miscellaneous](#)

[Manufacturer Declaration](#)



[Metrological Approval](#)

General Product Approval

Maritime application



[KC](#)



Maritime application

[NK / Nippon Kaiji Kyokai](#)



[CCS \(China Classification Society\)](#)



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