



SIMATIC DP, Electronic module for ET 200 PRO 4 AI I High Feature, ± 20 mA; 0...20 mA; 4-20mA; 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 current for current input (destruction limit), max.	40 mA
Cycle time (all channels) max.	10 ms
Input ranges (rated values), currents	
• 0 to 20 mA	Yes
— Input resistance (0 to 20 mA)	50 Ω
• -20 mA to +20 mA	Yes
— Input resistance (-20 mA to +20 mA)	50 Ω
• 4 mA to 20 mA	Yes
— Input resistance (4 mA to 20 mA)	50 Ω
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
• Interference voltage suppression for interference frequency f_1 in Hz	16,67 / 50 / 60 / 3 600
Smoothing of measured values	
• Parameterizable	Yes
• Step: None	Yes; 1x cycle time

• Step: low • Step: Medium • Step: High	Yes; 4x cycle time		
	Yes; 16x cycle time		
	Yes; 64x cycle time		
Encoder			
Connection of signal encoders			
• for current measurement as 2-wire transducer	Yes		
• for current measurement as 4-wire transducer	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			
• Current, relative to input range, (+/-)	0.1 %		
Basic error limit (operational limit at 25 °C)			
• Current, 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 < 5 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 4 to 20 mA		
• short-circuit	Yes; at 4 to 20 mA		
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)	5 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	16	27-24-26-01
	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



[Miscellaneous](#)



[Confirmation](#)

Maritime application	other	Railway	Environment
----------------------	-------	---------	-------------

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



[Confirmation](#)

[Confirmation](#)

[Environmental Confirmations](#)



Environment

[Environmental Confirmations](#)

last modified: 10/23/2025