

*** SPARE PART*** SIMATIC DP, EXPANSION MODULE EM 144
FOR ET 200X, IP66/67 2AI, 0(4) TO 20mA, 12 BIT + SIGN, WITH
DIAGNOSIS BY CHANNEL FOR 2-WIRE TRANSDUCER



Figure similar

Input current	
from supply voltage L+, max.	80 mA
Encoder supply	
Short-circuit protection	Yes
Power loss	
Power loss, typ.	1 W
Analog inputs	
Number of analog inputs	2
permissible input current for current input (destruction limit), max.	40 mA
Input ranges	
• Current	Yes; 4 to 20 mA
Input ranges (rated values), currents	
• 4 mA to 20 mA	Yes
• Input resistance (4 mA to 20 mA)	25 Ω
Cable length	

- shielded, max.

30 m

Analog value generation for the inputs

Analog value display	S7 Format / S5 Format
Measurement principle	integrating
Integration and conversion time/resolution per channel	
• Resolution with overrange (bit including sign), max.	12 bit; + sign; overrange 17.5%
• Integration time, parameterizable	Yes
• Integration time (ms)	16,7 / 20 ms
• Interference voltage suppression for interference frequency f1 in Hz	50 / 60 Hz

Encoder

Connection of signal encoders	
• for current measurement as 2-wire transducer	Yes
— Burden of 2-wire transmitter, max.	750 Ω
• for current measurement as 4-wire transducer	Yes

Errors/accuracies

Operational error limit in overall temperature range	
• Voltage, relative to input range, (+/-)	1.2 %
• Current, relative to input range, (+/-)	1.2 %

Interrupts/diagnostics/status information

Diagnostic functions	Yes; Parameterizable
Alarms	
• Diagnostic alarm	Yes
• Limit value alarm	Yes; upper limit, channel by channel/ lower limit channel by channel
• Hardware interrupt	Yes
Diagnostic messages	
• Short-circuit	Yes; channel by channel
• Overflow/underflow	Yes; channel by channel
Diagnostics indication LED	
• Group error SF (red)	Yes

Potential separation

Potential separation analog inputs	
• Potential separation analog inputs	No

Connection method

Design of electrical connection for the inputs and outputs	4/5-pin M12 circular connectors
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Dimensions

Width	87 mm; Width module 60 mm
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Height	110 mm
Depth	55 mm
Weights	
Weight, approx.	250 g
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