

*** SPARE PART*** SIMATIC DP, EXPANSION MODULE EM 144
 FOR ET 200X, IP66/67 2AI, PT100, 12 BIT+SIGN, WITH
 DIAGNOSIS BY CHANNEL 2/3/4-WIRE CONNECTION



Figure similar

Input current	
from supply voltage L+, max.	40 mA
Power loss	
Power loss, typ.	0.9 W
Analog inputs	
Number of analog inputs	2
permissible input voltage for voltage input (destruction limit), max.	30 V
Constant measurement current for resistance-type transmitter, typ.	1.5 mA
Input ranges	
• Resistance thermometer	Yes
Input ranges (rated values), resistance thermometer	
• Pt 100	Yes; Standard
• Input resistance (Pt 100)	10 MΩ
Characteristic linearization	
• parameterizable	Yes

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 resistance measurement with two-wire connection	Yes
• for resistance measurement with three-wire connection	Yes
• for resistance measurement with four-wire connection	Yes
Errors/accuracies	
Operational error limit in overall temperature range	
• Voltage, relative to input range, (+/-)	1.2 %
• Current, relative to input range, (+/-)	1.2 %
• Resistance thermometer, 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	
• Wire-break	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
Height	110 mm
Depth	55 mm

Weights

Weight, approx.	250 g
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last modified: 03/11/2017