



Figure similar

***** spare part ***** SIMATIC DP, HART analog input SM 331, 8 AI, 0/4 - 20 mA HART for ET200M with IM153-2, 1 x 20-pole, functions: firmware update, HART auxiliary variables, redundancy, local diagnostic buffer with time stamping,

General information	
Product function	
• Isochronous mode	No
Supply voltage	
Load voltage L+	
• Rated value (DC)	24 V
• Reverse polarity protection	Yes
Input current	
from load voltage L+ (without load), max.	20 mA
from backplane bus 5 V DC, max.	120 mA
Output voltage	
Power supply to the transmitters	
• present	Yes
• Rated value (DC)	24 V
• short-circuit proof	Yes
• Supply current, max.	60 mA
Power loss	
Power loss, typ.	1.5 W
Analog inputs	
Number of analog inputs	8
permissible input current for current input (destruction limit), max.	40 mA
Input ranges (rated values), currents	
• 0 to 20 mA	Yes
— Input resistance (0 to 20 mA)	140 Ω
• 4 mA to 20 mA	
— Input resistance (4 mA to 20 mA)	140 Ω
Cable length	
• shielded, max.	800 m
Analog value generation for the inputs	
Measurement principle	Sigma Delta
Integration and conversion time/resolution per channel	
• Resolution with overrange (bit including sign), max.	16 bit
• Integration time, parameterizable	Yes
• Integration time (ms)	20 ms at 50 Hz; 16.6 ms at 60 Hz; 100 ms at 100 Hz
• Basic conversion time, including integration time (ms)	55 ms @ 60 Hz, 65 ms @ 50 Hz, 305 ms @ 100 Hz
• Interference voltage suppression for interference frequency f1 in Hz	10 / 50 / 60 Hz

Smoothing of measured values			
• parameterizable	Yes		
• Step: None	Yes		
• Step: low	Yes		
• Step: Medium	Yes		
• Step: High	Yes		
Encoder			
Connection of signal encoders			
• for current measurement as 2-wire transducer	Yes		
• for current measurement as 4-wire transducer	Yes		
Errors/accuracies			
Operational error limit in overall temperature range			
• Current, relative to input range, (+/-)	0.15 %		
Basic error limit (operational limit at 25 °C)			
• Current, relative to input range, (+/-)	0.1 %		
Interrupts/diagnostics/status information			
Diagnostics function	Yes		
Alarms			
• Diagnostic alarm	Yes		
• Limit value alarm	Yes		
Diagnostics indication LED			
• Group error SF (red)	Yes		
• Channel fault indicator F (red)	Yes		
Potential separation			
Potential separation analog inputs			
• between the channels	No		
• between the channels and backplane bus	Yes		
Isolation			
Isolation tested with	500 V DC		
Degree and class of protection			
IP degree of protection	IP20		
Connection method			
required front connector	20-pin		
Dimensions			
Width	40 mm		
Height	125 mm		
Depth	117 mm		
Weights			
Weight, approx.	205 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			



[Miscellaneous](#)



[Manufacturer Declaration](#)

[China RoHS](#)



General Product Approval

[KC](#)



[EM](#)

For use in hazardous locations



[Miscellaneous](#)



[NK / Nippon Kaiji Kyokai](#)

Maritime application

Maritime application



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