



spare part SIMATIC S7, analog input SM 336, 6 AI; 15 bit; fail-safe analog inputs for SIMATIC Safety, with HART support, up to category 4 (EN 954-1)/ SIL3 (IEC61508)/PLE (ISO13849), 1x 20-pole

Supply voltage	
Rated value (DC)	24 V
Reverse polarity protection	Yes
Load voltage L+	
<ul style="list-style-type: none"> Rated value (DC) 	24 V
<ul style="list-style-type: none"> Reverse polarity protection 	Yes
Input current	
From power supply L+, typ.	150 mA
from backplane bus 5 V DC, max.	90 mA
Power loss	
Power loss, typ.	4.5 W
Analog inputs	
Number of analog inputs	6
permissible input current for current input (destruction limit), max.	40 mA
Input ranges	
<ul style="list-style-type: none"> Voltage 	No
<ul style="list-style-type: none"> Current 	Yes
<ul style="list-style-type: none"> Thermocouple 	No
<ul style="list-style-type: none"> Resistance thermometer 	No
<ul style="list-style-type: none"> Resistance 	No
Input ranges (rated values), currents	
<ul style="list-style-type: none"> 0 to 20 mA — Input resistance (0 to 20 mA) 	Yes 150 Ω; typ. 150 ohms max. 175 ohms
<ul style="list-style-type: none"> 4 mA to 20 mA — Input resistance (4 mA to 20 mA) 	Yes 150 Ω; typ. 150 ohms max. 175 ohms
Cable length	
<ul style="list-style-type: none"> shielded, max. 	1 000 m
Analog value generation for the inputs	
Integration and conversion time/resolution per channel	
<ul style="list-style-type: none"> Resolution with overrange (bit including sign), max. 	16 bit; 15 bit + sign
<ul style="list-style-type: none"> Integration time (ms) 	20 ms @ 50 Hz, 16.7 ms @ 60 Hz
<ul style="list-style-type: none"> Interference voltage suppression for interference frequency f1 in Hz 	f=n x (f1 ±0.5 %)
Encoder	
Connection of signal encoders	
<ul style="list-style-type: none"> for current measurement as 2-wire transducer 	Yes
<ul style="list-style-type: none"> for current measurement as 4-wire transducer 	Yes
Errors/accuracies	

Operational error limit in overall temperature range		
• Current, relative to input range, (+/-)	0.2 %; 40 µA	
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	
Diagnoses		
• Diagnostic information readable	Yes	
Diagnostics indication LED		
• Fail-safe operation	Yes	
• Group error SF (red)	Yes	
• Encoder supply Vs (green)	No	
Potential separation		
Potential separation analog inputs		
• between the channels	Yes	
• between the channels and backplane bus	Yes	
• between the channels and the power supply of the electronics	Yes	
Isolation		
Isolation tested with	370V for 1 min	
Standards, approvals, certificates		
Highest safety class achievable in safety mode		
• acc. to EN 954	4	
• Performance level according to ISO 13849-1	e	
• SIL acc. to IEC 61508	SIL 3	
Connection method		
required front connector	20-pin	
Dimensions		
Width	40 mm	
Height	125 mm	
Depth	120 mm	
Weights		
Weight, approx.	350 g	
Classifications		
	Version	Classification
eClass	14	27-24-22-01
eClass	12	27-24-22-01
eClass	9.1	27-24-22-01
eClass	9	27-24-22-01
eClass	8	27-24-22-01
eClass	7.1	27-24-22-01
eClass	6	27-24-22-01
ETIM	10	EC001420
ETIM	9	EC001420
ETIM	8	EC001420
ETIM	7	EC001420
IDEA	4	3562
UNSPSC	15	32-15-17-05
Approvals / Certificates		
General Product Approval		

[Miscellaneous](#)



[Metrological Approval](#)



General Product Approval

EMV

For use in hazardous locations



[China RoHS](#)



[EM](#)



For use in hazardous locations

Functional Safety



IECEX



ATEX

[Miscellaneous](#)

[CCC-Ex](#)

[TUEV](#)

[Type Examination Certificate](#)

Maritime application



ABS



BUREAU VERITAS



DNV



LRS

[NK / Nippon Kaiji Kyokai](#)



PRS

Maritime application



RINA

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

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