



SIMATIC S7-1200, Analog output, SB 1232, 1 AO, +/-10 V DC (12 bit resol.) or 0-20mA (11 bit resol.)

General information	
Product type designation	SB 1232, AQ 1x12 bit
Input current	
from backplane bus 5 V DC, typ.	15 mA
Output voltage	
Power supply to the transmitters	
• Supply current, max.	25 mA
Power loss	
Power loss, typ.	1.5 W
Analog inputs	
Number of analog inputs	0
Analog outputs	
Number of analog outputs	1
Cycle time (all channels) max.	Voltage: 300 µS (R), 750 µS (1 uF) Current: 600 ms (1 mH); 2 ms (10 mH)
Output ranges, voltage	
• -10 V to +10 V	Yes
Output ranges, current	
• 0 to 20 mA	Yes
Load impedance (in rated range of output)	
• with voltage outputs, min.	1 000 Ω
• with current outputs, max.	600 Ω
Cable length	
• shielded, max.	100 m; shielded, twisted pair
Analog value generation for the outputs	
Conversion principle	Differential
Integration and conversion time/resolution per channel	
• Resolution with overrange (bit including sign), max.	12 bit
Errors/accuracies	
Temperature error (relative to output range), (+/-)	25 °C ±0.5%, to 55 °C ±1%
Interrupts/diagnostics/status information	
Alarms	Yes
Diagnostics function	Yes
Diagnostics indication LED	
• for status of the outputs	Yes
Standards, approvals, certificates	
CE mark	Yes
CSA approval	Yes
UL approval	Yes

cULus	Yes		
FM approval	Yes		
RCM (formerly C-TICK)	Yes		
KC approval	Yes		
Marine approval	Yes		
Ambient conditions			
Free fall			
• Fall height, max.	0.3 m; five times, in product package		
Ambient temperature during operation			
• min.	-20 °C		
• max.	60 °C		
• horizontal installation, min.	-20 °C		
• horizontal installation, max.	60 °C		
• vertical installation, min.	-20 °C		
• vertical installation, max.	50 °C		
Ambient temperature during storage/transportation			
• min.	-40 °C		
• max.	70 °C		
Air pressure acc. to IEC 60068-2-13			
• Storage/transport, min.	660 hPa		
• Storage/transport, max.	1 080 hPa		
Relative humidity			
• Operation at 25 °C without condensation, max.	95 %		
Pollutant concentrations			
• SO2 at RH < 60% without condensation	SO2: < 0.5 ppm; H2S: < 0.1 ppm; RH < 60 % condensation-free		
• SO2 at RH < 60% without condensation	SO2: < 0.5 ppm; H2S: < 0.1 ppm; RH < 60 % condensation-free		
Mechanics/material			
Enclosure material (front)			
• plastic	Yes		
Dimensions			
Width	38 mm		
Height	62 mm		
Depth	21 mm		
Weights			
Weight, approx.	40 g		
Classifications			
		Version	Classification
	eClass	16	27-24-22-01
	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



[Manufacturer Declaration](#)

[China RoHS](#)



For use in hazardous locations

Maritime application

[FM](#)



[Miscellaneous](#)

[CCC-Ex](#)



Maritime application



[NK / Nippon Kaiji Kyokai](#)



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

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