

SIMATIC S7-1200 basic controller

I/O modules

Analog modules

SB 1232 analog output modules**Overview**

- Analog output for the SIMATIC S7-1200
- Can be plugged direct into the CPU

Technical specifications

Article number	6ES7232-4HA30-0XB0 SIGNAL BOARD SB 1232, 1 AO
Product type designation	
Input current	
from backplane bus 5 V DC, typ.	15 mA
Output voltage	
Power supply to the transmitters	
• Supply current, max.	25 mA
Power losses	
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 μ S (R), 750 μ S (1 μ F) 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.	10 m; shielded, twisted pair
Analog value creation	
Measurement principle	Differential
Integration and conversion time/ resolution per channel	
• Resolution (incl. overrange)	V/12 bits, I/11 bits
Smoothing of measured values	
• Parameterizable	Yes
Errors/accuracies	
Temperature error (relative to output range), (+/-)	25 °C \pm 0.5%, to 55 °C \pm 1%

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Interrupts/diagnostics/ status information	
Alarms	
• Alarms	Yes
Diagnostic messages	
• Diagnostic functions	Yes
Diagnostics indication LED	
• For status of the outputs	Yes
Degree and class of protection	
Degree of protection to EN 60529	
• IP20	Yes
Standards, approvals, certificates	
CE mark	Yes
CSA approval	Yes
FM approval	Yes
RCM (formerly C-TICK)	Yes
Ambient conditions	
Free fall	
• Drop height, max. (in packaging)	0.3 m; five times, in dispatch package
Ambient temperature in operation	
• Permissible temperature range	0 °C to 55 °C horizontal installation, 0 °C to 45 °C vertical installation
• Min.	0 °C
• max.	55 °C
Storage/transport temperature	
• 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	
• Permissible range (without condensation) at 25 °C	95 %
Pollutant concentrations	
- SO ₂ at RH < 60% without condensation	SO ₂ : < 0.5 ppm; H ₂ S: < 0.1 ppm; RH < 60% condensation-free

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Article number	6ES7232-4HA30-0XB0 SIGNAL BOARD SB 1232, 1 AO
Mechanics/material	
Type of housing (front)	
• plastic	Yes
Dimensions	
Width	38 mm
Height	62 mm
Depth	21 mm
Weights	
Weight, approx.	40 g

Ordering data**Article No.****SB 1232 analog output signal board**1 analog output, ± 10 V with 12 bits
or 0 ... 20 mA with 11 bits**6ES7232-4HA30-0XB0****Terminal block (spare part)**for signal board
with 6 screws, gold-plated; 4 pcs.**6ES7292-1BF30-0XA0**

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