



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 $\mu$ S (R), 750 $\mu$ S (1 $\mu$ 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 $\Omega$
• with current outputs, max.	600 $\Omega$
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 $\pm$ 0.5%, to 55 °C $\pm$ 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

### 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	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](#)

[Manufacturer Declaration](#)



[Metrological Approval](#)

General Product Approval				EMV	For use in hazardous locations
--------------------------	--	--	--	-----	--------------------------------



[China RoHS](#)

[Manufacturer Declaration](#)



For use in hazardous locations					Maritime application
--------------------------------	--	--	--	--	----------------------



[FM](#)



[Miscellaneous](#)

[CCC-Ex](#)



Maritime application					
----------------------	--	--	--	--	--



[NK / Nippon Kaiji Kyokai](#)



Maritime application					
----------------------	--	--	--	--	--

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

last modified:

7/2/2025