

APTER POWER PRODUCT MANUAL

6ES7231-4HA30-0XB0

SIMATIC S7-1200 SB 1231 Analog Input Board

The Siemens 6ES7231-4HA30-0XB0 is a SIMATIC S7-1200 SB 1231 analog input signal board with one channel configurable for +/-10 V DC at 12-bit resolution or 0 to 20 mA.

It converts one analog voltage or current signal into a digital value for a compatible S7-1200 CPU without adding a separate side-mounted module. It is used with a correctly configured TIA Portal channel, suitable transducer or signal conditioner, and shielded analog wiring in compact measurement, machine monitoring, and process-control applications.

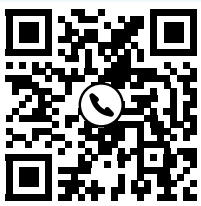
Manufacturer	Siemens
Prepared by	Apter Power
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Revision	R1
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APTER POWER SALES TEAM

INDUSTRIAL AUTOMATION PRODUCT SUPPORT

One compact analog channel for voltage or current measurement.

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SCAN FOR PRODUCT & QUOTE
6ES7231-4HA30-0XB0

1. Product Overview and Identity

The Siemens 6ES7231-4HA30-0XB0 is a SIMATIC S7-1200 SB 1231 analog input signal board with one channel configurable for +/-10 V DC at 12-bit resolution or 0 to 20 mA.

It converts one analog voltage or current signal into a digital value for a compatible S7-1200 CPU without adding a separate side-mounted module. It is used with a correctly configured TIA Portal channel, suitable transducer or signal conditioner, and shielded analog wiring in compact measurement, machine monitoring, and process-control applications.

Model Configuration

Field	Verified information
Complete model	6ES7231-4HA30-0XB0
Manufacturer	Siemens
Product description	SIMATIC S7-1200 SB 1231 Analog Input Board

Key Features

- Exact Siemens MLFB 6ES7231-4HA30-0XB0
- SIMATIC S7-1200 SB 1231 Analog Input Board
- 1
- +/-10 V DC
- Model-specific lifecycle, weight, dimensions, and installation guidance

2. Technical Specifications

Only manufacturer-confirmed information is stated. Values absent from the named Siemens source are marked for nameplate or document verification.

Parameter	Verified value
Product type	S7-1200 SB 1231 analog input signal board
Analog inputs	1
Voltage range	+/-10 V DC
Voltage resolution	12 bit
Current range	0 to 20 mA
Siemens net weight	0.029 kg
Siemens packaging dimensions	5.2 x 8.0 x 2.9 cm
Country of origin	China
Lifecycle	PM300 active product; phase-out scheduled from 1 November 2026

Verification Note

Use the complete 6ES7231-4HA30-0XB0 identifier. Siemens lists 6ES7231-4HA30-0XB0 as PM300 active, with product phase-out scheduled from 1 November 2026. Values not published in the cited Siemens source are intentionally not inferred.

3. Functions, Applications and Components

Core Functions

- It converts one analog voltage or current signal into a digital value for a compatible S7-1200 CPU without adding a separate side-mounted module. It is used with a correctly configured TIA Portal channel, suitable transducer or signal conditioner, and shielded analog wiring in compact measurement, machine monitoring, and process-control applications.
- Maintains the documented SIMATIC S7-1200 signal-board expansion role for this complete Siemens article number.
- Provides a verified reference for configuration, commissioning, diagnostics, and lifecycle planning.

Application Areas

Application	System role
Single-channel machine measurement	Adds one analog sensor without a side expansion module
Voltage transducers	Digitizes a bipolar +/-10 V signal for control or monitoring
Current-loop instruments	Acquires a 0 to 20 mA process signal
Compact condition monitoring	Feeds pressure, position, load, or speed values to an S7-1200 CPU

Compatible Components

- SIMATIC S7-1200 CPU supporting the SB 1231 signal board
- Voltage transducer within +/-10 V DC or current transmitter within 0 to 20 mA
- TIA Portal hardware configuration matching the selected input mode
- Shielded analog cable, reference potential, grounding, and loop supply specified for the signal

Lifecycle Status

Siemens lists 6ES7231-4HA30-0XB0 as PM300 active, with product phase-out scheduled from 1 November 2026.

4. Installation Precautions

- CPU support: Verify the exact S7-1200 CPU and signal-board slot compatibility
- Input mode: Configure either +/-10 V or 0 to 20 mA before connecting the signal
- Wiring: Check polarity, reference potential, shield termination, and loop supply
- Protection: Keep the applied voltage or current within the Siemens channel limits
- Commissioning: Validate raw value, engineering scaling, noise, open-circuit response, and alarms

STOP - Verify before installation

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Use the physical nameplate and current Siemens documents as the controlling records.

5. Official Source and Use Notice

Official source

Siemens Industry Mall product record for 6ES7231-4HA30-0XB0:

<https://mall.industry.siemens.com/mall/en/oeii/Catalog/Product?SiepCountryCode=OE&mlfb=6ES7231-4HA30-0XB0>

Apter Power product page

<https://www.apterpower.com/Siemens/6es7231-4ha30-0xb0>

Use Notice

This is an original Apter Power product-specific reference prepared from the Siemens source named above. It is not a Siemens publication and does not replace the original data sheet, nameplate, certificate, installation drawing, safety instructions, or machine-builder documentation.

ASK FOR QUOTE

For availability and quotation details, visit www.apterpower.com or contact sales13@apterpower.com.