



X20AI4322

B&R; X20 4-Channel Analog Input Module

Product scope

- Acquires four differential 0–20 mA or 4–20 mA current signals.
- Uses a 12-bit successive-approximation converter for all input channels.
- Provides 500 Veff isolation between the input group and the X20 bus.
- The electronic module requires an X20TB12 terminal block and compatible X20BM11 or X20BM15 bus module.

Official source basis

B&R; X20AI4322 product page and X20AI4322-ENG V1.20 data sheet.

Technical facts are limited to the identified manufacturer documentation and the exact ordering configuration shown above.

Request a fast quote	Product reference	
Email: info@apterpower.com Phone: +86 18106909650 apter.com/inquiry.php	B&R; X20AI4322	

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X20AI4322 technical profile

X20AI4322 is a B&R; X20 analog input electronic module with four differential channels for 0 to 20 mA and 4 to 20 mA process signals.

The module converts current-loop measurements into controller data for compact machine and process I/O stations, with local channel indication and software-accessible diagnostics.

Correct integration depends on the selected input range, transmitter reference, common-mode conditions, filter and cycle settings, X20TB12 terminal block, compatible bus module and Automation Studio hardware configuration.

Selection notice

X20AI4322 channels are isolated from the bus but not from one another. Verify common-mode conditions, filter timing and the complete X20 slice before commissioning.

Technical specifications

Analog inputs	4 channels
Signal ranges	0 to 20 mA / 4 to 20 mA
Input configuration	Differential inputs
Digital value mapping	0x0000 to 0x7FFF
Digit value	1 LSB = 0x0008 = 4.883 μ A
Converter resolution	12-bit
Conversion method	Successive approximation register
Conversion time	400 μ s for all inputs
Input load	Less than 400 Ω
Maximum input	$\pm$ 50 mA
Wiring protection	Protected against connection to supply voltage
Low-pass filter	3rd order; 1 kHz cutoff frequency
Bus power consumption	0.01 W
Internal I/O consumption	1.1 W
Common-mode rejection	70 dB at DC and 50 Hz
Common-mode range	$\pm$ 12 V
Channel crosstalk	-70 dB
Nonlinearity	Less than 0.05%
Channel-to-bus insulation	500 Veff
Electrical isolation	Input group isolated from bus; channels not isolated from each other
Mounting orientation	Horizontal or vertical
Degree of protection	IP20
Horizontal operation	-25 to 60°C
Vertical operation	-25 to 50°C
Storage and transport	-40 to 85°C
Module pitch	12.5 +0.2 mm

Application and integration notes

Configuration	- Automation Studio defines the current range, filter behavior and channel data handling. - The module returns INT values over the documented 0x0000 to 0x7FFF mapping. - Hardware revision and station definition should be checked before replacement.
Diagnostics	- Local channel indication and software status support commissioning checks. - Wiring protection covers accidental connection to the supply voltage. - Input-group common-mode conditions must remain inside the documented ± 12 V range.
Installation	- The 12.5 mm electronic module mounts horizontally or vertically within X20 limits. - X20TB12 and the selected bus module are ordered separately from the electronics. - Channels share an input group and are not isolated from one another.

Request product documentation and quotation support

Send the complete label, system configuration, quantity and destination.



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