

INDUSTRIAL AUTOMATION PRODUCT

B&R X20AO2622

Analog Output Module

B&R; X20AO2622 provides two software-configurable analog channels for voltage or current actuation in an X20 station. Different terminal connections select +/-10 V, 0-20 mA or 4-20 mA operation for each documented field loop.

IDENTITY	VERIFIED VALUE
Manufacturer	B&R;
Complete model	B&R; X20AO2622
Product role	Analog Output Module
System family	X20 System
Country of origin	Austria

DOCUMENT SCOPE

Exact identity, manufacturer-supported technical data, installation checks, applications, precautions and controlled verification records.

APTER POWER SALES TEAM

WHATSAPP / PHONE +86 180 3023 5313

EMAIL sales13@apterpower.com

WEBSITE www.apterpower.com



B&R X20AO2622

Technical Specifications

PARAMETER	VERIFIED VALUE
Analog outputs	2
Voltage range	+/-10 V
Current ranges	0 to 20 mA or 4 to 20 mA
Converter resolution	+/-12-bit voltage; 12-bit current
Conversion time	200 us for all outputs
Full-range settling time	1 ms
Voltage load	>=1 kohm; maximum +/-10 mA
Current load	Maximum 600 ohm for revision J0 or later
Output protection	Short-circuit proof; +/-40 mA current limiting
Isolation	500 Veff between channel and bus
B&R; ID code	0x1BA2
Terminal block	X20TB06 or X20TB12

Model-Specific Engineering Note

ENGINEERING BOUNDARY

Confirm the voltage or current terminal path before wiring B&R; X20AO2622; software selection alone does not replace the required terminal connection. Verify the configured range, load, safe startup value and full-scale response on both channels.

Pre-Installation Checks

NO.	REQUIRED CHECK
1	Confirm X20AO2622 and both assigned analog loops before removal.
2	Record whether each field signal uses the voltage or current terminal connection.
3	Verify X20TB06 or X20TB12 and X20BM11 or X20BM15 before insertion.
4	Keep a voltage load at or above 1 kohm and within the channel current limit.
5	For current mode, confirm the hardware revision before applying the 600 ohm maximum load.

System Role and Architecture

B&R; X20AO2622 provides two software-configurable analog channels for voltage or current actuation in an X20 station. Different terminal connections select +/-10 V, 0-20 mA or 4-20 mA operation for each documented field loop.

FUNCTION 1
Drives two process actuators from one compact X20 slice

FUNCTION 2
Selects voltage or current operation through dedicated terminal paths

FUNCTION 3
Uses an internal enable relay to control startup behavior

FUNCTION 4
Protects both analog outputs with short-circuit current limiting

Common Applications

APPLICATION	ENGINEERING CONTEXT
Valve-position command	B&R; X20AO2622 sends a 4-20 mA command to a compatible process actuator.
Drive speed reference	A +/-10 V channel supplies a bipolar reference within the documented load limit.
Process setpoint generation	Two current or voltage loops deliver controller setpoints to field equipment.
Dual-channel actuator retrofit	The module restores two documented analog commands while preserving terminal path, scaling and safe startup values.

CONTROLLED ACCEPTANCE DUTY
Confirm identity, physical interface, companion hardware, configured values and functional response against the installed-system record before release.

Engineering Precautions

NO.	PRECAUTION
1	Confirm X20AO2622 and both assigned analog loops before removal.
2	Record whether each field signal uses the voltage or current terminal connection.
3	Verify X20TB06 or X20TB12 and X20BM11 or X20BM15 before insertion.
4	Keep a voltage load at or above 1 kohm and within the channel current limit.
5	For current mode, confirm the hardware revision before applying the 600 ohm maximum load.
6	Preserve the configured range, scaling, startup behavior and safe-state command.
7	Check channel output with a suitable meter before reconnecting the actuator.
8	Sweep the required operating span and prove final actuator response before release.

Model-Specific FAQ - Part 1

QUESTION	ANSWER
Why does B&R; X20AO2622 require the correct terminal path as well as software configuration?	The module selects current or voltage through different terminal connections, so the physical landing must match the configured signal type.
Which bipolar command can B&R; X20AO2622 generate?	The voltage mode provides a documented +/-10 V output with signed 12-bit conversion.
What current-loop ranges are available from B&R; X20AO2622?	The current terminals support 0-20 mA and 4-20 mA operation with 12-bit conversion.
How does B&R; X20AO2622 behave during output startup?	B&R; specifies an internal enable relay that controls switch-on and switch-off behavior during startup.

Model-Specific FAQ - Part 2

QUESTION	ANSWER
Which load limit applies to B&R; X20AO2622 voltage mode?	The load must be at least 1 kohm and the output is limited to +/-10 mA, with the stated voltage-dependent maximum current.
When may a B&R; X20AO2622 current output drive 600 ohm?	The 600 ohm maximum applies to hardware revision J0 or later; earlier revisions are limited to 500 ohm.
What response time should a B&R; X20AO2622 loop test demonstrate?	Conversion for all outputs is 200 microseconds and a full-range output change settles in 1 ms.
How is B&R; X20AO2622 protected during a short circuit?	The outputs are short-circuit proof and use current limiting at approximately +/-40 mA; correct wiring and load validation are still required.

Related Products on Apter Power

MODEL	APTER POWER PAGE
GE 0552N1QLG132A-06-V1-1	View GE 0552N1QLG132A-06-V1-1 page
GE 151X1202YE03SA04-IS200 STAIH2ADC	View GE 151X1202YE03SA04-IS200STAIH2ADC page
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GE 269PLUS-100P-120	View GE 269PLUS-100P-120 page
GE 531X111PSHAPG3	View GE 531X111PSHAPG3 page
GE 531X111PSHARG1	View GE 531X111PSHARG1 page

MANUFACTURER SOURCE RECORD

Data sheet X20AO2622
B&R; version 3.16, 2025-09-15

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