B&R X20AO2622

01 Function and selected configuration

Product function

B&R X20AO2622 connects its configured field signals and diagnostic states to the automation task. Correct operation depends on retaining the installed hardware selection and the application settings together.

Selected configuration

The module offers two outputs whose voltage or current function depends on both the selected terminals and channel configuration. Bipolar voltage uses a 12-bit magnitude plus sign; current conversion is 12-bit. The 4-20 mA mode requires upgrade 1.0.2.0 or hardware revision I0 and later.

Functional path

Application settings	Analog Output Module	2 / configured interface	Diagnostics / process value

Output channels	2
Voltage span	+/-10 V
Current span	0-20 mA;4-20 mA conditional

All outputs convert within 200 microseconds and settle within 1 ms for a full-range change. At a minimum 300 microsecond cycle, function model 0 transfers corrected values in the next cycle for lower jitter, while function model 1 makes them available in the same cycle for faster reaction.

X20AO2622

02 Technical operating envelope

Output channels	2
Voltage span	+/-10 V
Current span	0-20 mA;4-20 mA conditional
Voltage resolution	12 bits plus sign
Current resolution	12 bits
Conversion time	200 microseconds; all outputs

Full-range settling	1 ms
Voltage load	At least 1 kilohm
Current load	600 ohms from J0;500 ohms before J0
Minimum I/O update	300 microseconds
Isolation	Outputs to bus; not between outputs
Internal I/O power	1.1 W

Software representation does not redefine converter resolution or processor timing. Apply the exact revision and operating-mode restrictions with the installed load or sensor arrangement.

Signal interpretation

All outputs convert within 200 microseconds and settle within 1 ms for a full-range change. At a minimum 300 microsecond cycle, function model 0 transfers corrected values in the next cycle for lower jitter, while function model 1 makes them available in the same cycle for faster reaction.

Interface boundary

Current-load capacity is revision dependent:600 ohms from J0, 500 ohms earlier. Voltage operation requires at least 1 kilohm load. Outputs are protected against short circuits and isolated from the bus, but not from each other. Preserve the hardware revision, selected output terminals and application scaling during exchange.

X20AO2622

03 System integration and applications

Configured machine function

The module offers two outputs whose voltage or current function depends on both the selected terminals and channel configuration. Bipolar voltage uses a 12-bit magnitude plus sign; current conversion is 12-bit. The 4-20 mA mode requires upgrade 1.0.2.0 or hardware revision I0 and later.

Interface continuity

Retain the selected low-jitter or fast-reaction model. Account for 200 microsecond conversion and 1 ms full-range settling in the application test.

Diagnostic acceptance

Verify references and loads without assuming channel-to-channel isolation. Investigate shared-reference wiring if one circuit affects the other.

Controlled restoration

Check module run/error and channel indications during controlled restart. Verify the intended output state before returning automatic control.

System and supply context

X20AO2622 operates within its compatible B&R rack or X20 arrangement. Storage, bus modules, terminal blocks and field devices are separate unless included in the quotation.

Application boundary

Apply the exact hardware and software configuration to the assigned machine function. A similar connector or base family is insufficient to establish replacement compatibility.

X20AO2622

04 Engineering selection decisions

Is wiring alone sufficient to select current mode on X20AO2622?

No. Both the terminal connection and channel configuration must match the required current or voltage signal.

Can every X20AO2622 revision drive a 600-ohm current load?

No.600 ohms applies from hardware revision J0; earlier revisions have a 500-ohm maximum current load.

Does X20AO2622 provide 16-bit analog accuracy because its register is INT?

No. The register representation is not the converter resolution. Voltage conversion is 12 bits plus sign and current conversion is 12-bit.

Are the output channels of X20AO2622 mutually isolated?

No. Isolation is between the channel side and bus; the output channels are not isolated from one another.

Restore both configuration layers	Reconnect the correct terminals and restore channel type in software. Do not rely on a software mode change to correct a wrong terminal connection.
Exercise the output span	Apply controlled commands at representative points and compare actual voltage/current at the receiver. Keep the actuator in its safe test condition.

X20AO2622

05 Configuration boundary and references

Lifecycle and support

The current manufacturing and factory-support phase of X20AO2622 is not confirmed. Apter Power availability is assessed separately from manufacturer lifecycle status.

Replacement assessment

Preserve the complete model, actual hardware revision, installed interfaces and application settings. Validate the required function before releasing automatic operation.

Document roles

Use the original manufacturer excerpt for its preserved technical tables and drawings. This product brief explains selection and system context. The separate installation guide covers preparation, connection, tests and handover; it does not replace manufacturer instructions.

Technical basis

B&R X20AO2622 Data Sheet V3.16.

Related product navigation

- B&R X20BC8084
- B&R X20DO8332

These are related references, not confirmed substitutes or an automatically approved assembly.

Product enquiries