# X20AI2237

## Two-channel isolated analog voltage input module

Two isolated +/-10 V analog input signals

### PRODUCT SNAPSHOT

| | |
|---|---|
| BRAND | FAMILY |
| B&R | B&R X20 analog I/O |
| PART | ORIGIN / HS |
| X20AI2237 | Austria / 8537101190 |

### APTER POWER SALES TEAM

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# PRODUCT OVERVIEW

Two isolated +/-10 V analog input signals

1. Measures two bipolar voltage channels
2. Uses sixteen-bit conversion
3. Isolates the channels from one another
4. Supports NetTime-related acquisition

## SYSTEM COMPONENTS

- X20BM11 or X20BM15 bus module
- X20TB12 terminal block
- bipolar voltage sensors
- Automation Studio channel configuration

**TECHNICAL NOTE**

Confirm the bus module and terminal block, preserve channel polarity and shield routing, then simulate negative, zero and positive values.

# TECHNICAL DATA

| PARAMETER | VALUE |
|---|---|
| **Inputs** | 2 |
| **Signal range** | +/-10 V |
| **Resolution** | 16 bit |
| **Isolation** | Channel-to-channel and sensor-supply isolation |

| PARAMETER | VALUE |
|---|---|
| **Bus modules** | X20BM11 or X20BM15 |
| **Terminal block** | X20TB12 |
| **Timing** | NetTime timestamp support |

### ENGINEERING NOTE

Confirm the bus module and terminal block, preserve channel polarity and shield routing, then simulate negative, zero and positive values.

## RELATED PRODUCTS ON APTER POWER

| MODEL | SYSTEM ROLE | APTER POWER PAGE |
|---|---|---|
| **51199942-300** | Related industrial automation product | View 51199942-300 page |
| **MC-PDIS12** | Related industrial automation product | View MC-PDIS12 page |
| **51304511-100** | Related industrial automation product | View 51304511-100 page |
| **51303940-250** | Related industrial automation product | View 51303940-250 page |
| **WEB-600** | Related industrial automation product | View WEB-600 page |
| **MU-KBFT02** | Related industrial automation product | View MU-KBFT02 page |
| **8C-TDODB1** | Related industrial automation product | View 8C-TDODB1 page |
| **CC-GDIL01** | Related industrial automation product | View CC-GDIL01 page |

# APPLICATIONS & PRECAUTIONS

## COMMON APPLICATIONS

### Precision position transducer input

Measures two bipolar voltage channels

### Isolated voltage measurement

Uses sixteen-bit conversion

### Synchronized analog acquisition

Isolates the channels from one another

### Analog-input slice renewal

Supports NetTime-related acquisition

## PRODUCT PRECAUTIONS

1. Verify the full X20AI2237 marking and its assigned B&R X20 analog I/O position before work.
2. Place the connected machine or process in the approved maintenance state.
3. Isolate the applicable supply and two isolated +/-10 v analog input signals field energy before disconnecting conductors.
4. Record connector, conductor, address and software identities before removal.
5. Use ESD controls and protect keyed interfaces, exposed contacts and electronic assemblies.
6. Confirm the installed X20BM11 or X20BM15 bus module and X20TB12 terminal block against the approved project.
7. Restore power in a controlled sequence and review device, network and host diagnostics.
8. Prove the intended precision position transducer input function and retain the final test result.

# ENGINEER FAQ

**Q1 Does X20AI2237 match X20BM11 or X20BM15 bus module in a Precision position transducer input installation?**

Verify the complete X20AI2237 marking, the documented B&R X20 analog I/O position and the installed X20BM11 or X20BM15 bus module before fitting the assembly.

**Q2 How should X20AI2237 be wired when it must measures two bipolar voltage channels?**

Isolate the circuit, identify every terminal and reproduce the approved polarity, shield and channel assignment for X20AI2237; then continuity-test the affected path.

**Q3 Which B&R X20 analog I/O records should be captured before removing X20AI2237?**

Record the as-found wiring, installed position, active configuration and diagnostic state associated with X20AI2237 before disconnection.

**Q4 What controlled test confirms that X20AI2237 can uses sixteen-bit conversion?**

Apply the approved field or simulated stimulus, observe the B&R X20 analog I/O indication and confirm the intended response without bypassing the normal interlocks.

**Q5 Which X20TB12 terminal block condition should be checked when X20AI2237 reports an abnormal state?**

Check the X20TB12 terminal block supply, seating and connection first, then compare channel diagnostics with the recorded X20AI2237 baseline.

**Q6 Can X20AI2237 be moved directly into Isolated voltage measurement without validating Automation Studio channel configuration?**

No. Confirm the Automation Studio channel configuration, revision, connection scheme and B&R X20 analog I/O configuration before transferring X20AI2237 to that duty.

**Q7 What maintenance evidence is required after X20AI2237 is used for Synchronized analog acquisition?**

Retain the nameplate record, corrective action, final diagnostics and a controlled synchronized analog acquisition functional-test result for X20AI2237.

**Q8 How should X20AI2237 be returned to service in Analog-input slice renewal?**

Restore power under control, verify isolates the channels from one another, exercise the intended signal path and release X20AI2237 only after the B&R X20 analog I/O remains in its approved operating state.

**SOURCE** B&R official product data sheet | B&R product data

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