APTER POWER

PRODUCT TECHNICAL REFERENCE

INDUSTRIAL AUTOMATION PRODUCT

# X20AI2237

## Two-channel isolated analog voltage input module

Two isolated +/-10 V analog input signals

| IDENTITY | VERIFIED VALUE |
|---|---|
| **Manufacturer** | B&R |
| **System family** | B&R X20 analog I/O |
| **Part number** | X20AI2237 |
| **Country** | Austria |
| **HS code** | 8537101190 |


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## 2 Technical Specifications

Technical values below are limited to the named B&R product record.

| PARAMETER | TECHNICAL VALUE |
|---|---|
| **Inputs** | 2 |
| **Signal range** | +/-10 V |
| **Resolution** | 16 bit |
| **Isolation** | Channel-to-channel and sensor-supply isolation |
| **Bus modules** | X20BM11 or X20BM15 |
| **Terminal block** | X20TB12 |
| **Timing** | NetTime timestamp support |

### ENGINEERING DATA SUMMARY

| DATA GROUP | VERIFIED ASSIGNMENT |
|---|---|
| **Installed host / carrier** | X20BM11 or X20BM15 bus module |
| **Companion hardware** | X20TB12 terminal block |
| **Field connection** | bipolar voltage sensors |
| **Primary system function** | Measures two bipolar voltage channels |
| **Controlled acceptance duty** | Precision position transducer input |

## 3 System Role and Architecture

Two isolated +/-10 V analog input signals

**FUNCTION 1**

Measures two bipolar voltage channels

**FUNCTION 2**

Uses sixteen-bit conversion

**FUNCTION 3**

Isolates the channels from one another

**FUNCTION 4**

Supports NetTime-related acquisition

### Matched system components

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

### SYSTEM INTEGRATION RECORD

| INTEGRATION ITEM | DOCUMENTED ROLE |
| --- | --- |
| **Installed host / carrier** | X20BM11 or X20BM15 bus module |
| **Companion hardware** | X20TB12 terminal block |
| **Field connection** | bipolar voltage sensors |
| **Primary system function** | Measures two bipolar voltage channels |
| **Controlled acceptance duty** | Precision position transducer input |

## 4 Applications and Engineering Context

**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

### TECHNICAL NOTE

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

### MODEL-SPECIFIC ACCEPTANCE EVIDENCE

| CHECK | ACCEPTANCE CONDITION |
|---|---|
| **Identity** | X20AI2237 / X20AI2237 recorded |
| **Physical interface** | X20BM11 or X20BM15 bus module |
| **Companion check** | X20TB12 terminal block |
| **Functional proof** | Measures two bipolar voltage channels |
| **Application test** | Precision position transducer input |

## 5 Engineering 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.

### RELATED PRODUCTS ON APTER POWER

| MODEL | SYSTEM ROLE | APTER POWER PAGE |
|---|---|---|
| **10020-1-2** | Related industrial automation product | **View 10020-1-2 page** |
| **51405098-100** | Related industrial automation product | **View 51405098-100 page** |
| **51304518-150** | Related industrial automation product | **View 51304518-150 page** |
| **51303979-550** | Related industrial automation product | **View 51303979-550 page** |
| **8C-TDOD51** | Related industrial automation product | **View 8C-TDOD51 page** |
| **38500143-200** | Related industrial automation product | **View 38500143-200 page** |
| **MC-PRHM01** | Related industrial automation product | **View MC-PRHM01 page** |
| **TC-IDA161** | Related industrial automation product | **View TC-IDA161 page** |

### MANUFACTURER SOURCE RECORD

B&R official product data sheet

B&R product data


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