EX1000 Series

EX1000A • EX1000A-TC • EX1016A
EX1032A • EX1048A • EX10SC

Accurate. Powerful. Easy to Use.

The EX1000 family of LXI™ Class A instruments are the most advanced, full-featured data acquisition solutions available on the market today. These scalable, standalone instruments provide superior measurement accuracy and repeatability thanks to fully integrated signal conditioning, advanced cold junction compensation (CJC), and end-to-end self-calibration.

The EX1000 family of data acquisition instruments addresses your most demanding distributed measurement applications in one easy-to-use package.

Flexible Channel Configuration

A wide range of transducer types, including pressure, strain, temperature, position and voltage, can be combined in this flexible solution. Each input incorporates an independent signal conditioning path with software selectable filters for maximum flexibility. Complete channel independence ensures data integrity regardless of sample speed or input overload conditions.

End-to-End Self-Calibration

Complete end-to-end self-calibration is provided for each signal path on a programmable basis. A highly accurate calibration source provides reference signals that are applied prior to analog filtering and gain circuits to compensate for drift, aging, or temperature variations. Self-calibration is simple and quick, and can be performed as often as desired.

Scalable for Synchronized High-Speed, High Channel Count

With LXI Class A-compliant features like a built-in Trigger Bus™ hardware trigger subsystem, the EX1000 family supports easy integration and synchronization of multiple devices including existing VXIbus instrumentation.

Open Transducer Detection

Each channel is configured with open transducer detection functionality, providing a continuous indication of the channel’s status. Open transducer detection can be activated or deactivated on a per-channel basis. The detection mechanism is embedded in the signal conditioning circuitry and accurately provides an open circuit indication in the event of a broken or intermittent transducer. The open transducer detection applies a nominal bias current of +/- 7.5 nanoamps to each channel.

Cold Junction Compensation

The heart of any truly accurate thermocouple measurement system is the CJC implementation. These instruments combine multiple precision thermistors, a significant thermal mass, and careful parts placement to provide world-class measurement performance.
EX1000 Series

Unmatched signal conditioning flexibility to meet your most demanding needs

The EX10SC modular signal conditioning platform expands measurement capabilities to address the most demanding industrial signal acquisition challenges. This extension of the EX1000 family is designed to ensure seamless integration and connectivity, with exceptional measurement flexibility. Signals from a wide variety of transducer types can be mixed and matched, on a per-channel basis, ensuring complete coverage from a single, high-performance measurement platform.

Isolation and Protection

A wide range of signal types are supported. Transducer types can be mixed and matched on an individual channel basis.

- Thermocouple
- RTD
- Thermistor
- Potentiometer
- Strain gage
- Pressure
- High-level voltage
- Frequency
- Current

Challenging measurement environments, such as areas with high levels of electrical noise or transient power surges, require unique protection capabilities. The EX10SC signal conditioning platform provides exceptional input protection and isolation across a wide range of operating conditions, protecting valuable instrumentation and ensuring measurement integrity.

Simply match the signal characteristics with the appropriate signal conditioning module, make connections with the easy-to-use termination access points, and start collecting data.

Simplified Installation, Setup and Control

Full LXI™ Class A compliance makes the EX1000 family of instruments ideal for distributed measurements throughout your facility by reducing cabling and installation expenses. Connect directly to your LAN network using industry standard Ethernet cable and connections.

An onboard, web-accessible user interface allows you to instantly verify communications and instrument functionality. IVI and VXI Plug and Play drivers provide a familiar application programming interface to further reduce integration and program development time.

DAC Express provides intuitive, programming-free instrument setup, data logging, and measurement display. This turn-key software solution provides out-of-the-box operation across the entire product family, resulting in faster time to test.

EX10SC Highlights

- 16-Channel capacity
- Mix and match transducer types on a per-channel basis
- Seamless integration with the EX1000A, EX1016A and EX1032A
- Simplified, reliable field terminations
- Turnkey DAC Express support
- 1500Vrms isolation (module)
- 300V isolation (input to chassis)
- Input protection to 240VAC continuous
- ANSI/IEEE C37.90.1 transient protection
Precision, Scalable Measurement Instruments
LXI Class A Synchronization Technology

- Mini-T/C connectivity
- Open thermocouple indication
- 19", 1U configuration
- Power indication
- LAN/LXI status LEDs

- Standard LAN connectivity
- Digital alarm outputs
- Precision hardware handshaking
- NIST field calibration capable
- Precision voltage and thermocouple
- D-sub connectivity for voltages
- Mini-T/C connectivity for thermocouples

- Single cable access for up to 16 channels of independent signal conditioning inputs
- 16-channel signal conditioning chassis
- Individually configurable per channel
- 4-pin Molex connectors

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Model Selection

<table>
<thead>
<tr>
<th>Model</th>
<th>Thermocouple Channels</th>
<th>Voltage Channels</th>
<th>Connector Style</th>
<th>EX10SC Compatible</th>
</tr>
</thead>
<tbody>
<tr>
<td>EX1000A</td>
<td>*</td>
<td>0.667 mV max</td>
<td>D-sub</td>
<td>Yes</td>
</tr>
<tr>
<td>EX1000A/TC</td>
<td></td>
<td>10 V max</td>
<td>mini-TC</td>
<td>No</td>
</tr>
<tr>
<td>EX1016A</td>
<td>16</td>
<td>32</td>
<td>mini-TC / D-sub</td>
<td>Yes</td>
</tr>
<tr>
<td>EX1032A</td>
<td>32</td>
<td>16</td>
<td>mini-TC / D-sub</td>
<td>Yes</td>
</tr>
<tr>
<td>EX1048A</td>
<td>48</td>
<td>0</td>
<td>mini-TC</td>
<td>No</td>
</tr>
</tbody>
</table>

* Thermocouple measurements require external CJC signal
** All channels capable of Thermocouple or 10V max operation
## Specifications

**Channels**
48 differential inputs

**Channel Types**
- Voltage inputs: mV, V (EX1000A/TC, EX1016A, EX1032A)

**Sampling Rate**
1000 Sa/sec/ch maximum

**Temperature Resolution**
0.1 °C

**Temperature Accuracy**
See Thermocouple Accuracy table on page 5

**Temperature Noise, Peak-to-Peak**
0.08 °CpP typical (J, K, T, E)

**Programmable Filters**
- Bessel (2 pole) 4 Hz, 15 Hz, 40 Hz, 100 Hz, 500 Hz (-3 dB cutoff frequency)
- Butterworth (1 pole) 1000 Hz (-3 dB cutoff frequency)

**Voltage Input Range**
- ±0.01 V, ±0.066V*, ±0.1 V, ±1.0 V, ±10.0 V (*Thermocouple Input Range)

**Input voltage/frequency**
90 V AC – 264 V AC*, 50 Hz/60 Hz (nominal AC)

**Power**
47 VA

*Note: fluctuations for main voltage to the power supply not exceeding 10% of the nominal voltage.

**Voltage Resolution**

<table>
<thead>
<tr>
<th>Voltage (V)</th>
<th>Resolution (µV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>±10.0 V</td>
<td>300 µV</td>
</tr>
<tr>
<td>±1.0 V</td>
<td>30 µV</td>
</tr>
<tr>
<td>±0.1 V</td>
<td>3.0 µV</td>
</tr>
<tr>
<td>±0.067 V</td>
<td>2.0 µV</td>
</tr>
<tr>
<td>±0.01 V</td>
<td>0.3 µV</td>
</tr>
</tbody>
</table>

**Voltage Accuracy**

<table>
<thead>
<tr>
<th>Voltage (V)</th>
<th>Accuracy with self-cal</th>
<th>Accuracy without self-cal</th>
</tr>
</thead>
<tbody>
<tr>
<td>±10.0 V</td>
<td>±(0.025% + 500 µV)</td>
<td>±(0.05% + 1 mV)</td>
</tr>
<tr>
<td>±1.0 V</td>
<td>±(0.025% + 50 µV)</td>
<td>±(0.05% + 100 µV)</td>
</tr>
<tr>
<td>±0.1 V</td>
<td>±(0.025% + 10 µV)</td>
<td>±(0.05% + 20 µV)</td>
</tr>
<tr>
<td>±0.067 V</td>
<td>±(0.025% + 10 µV)</td>
<td>±(0.05% + 20 µV)</td>
</tr>
<tr>
<td>±0.01 V</td>
<td>±(0.050% + 10 µV)</td>
<td>±(0.10% + 20 µV)</td>
</tr>
</tbody>
</table>

**Voltage Offset Stability**

<table>
<thead>
<tr>
<th>Voltage (V)</th>
<th>Stability (µV/°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>±10.0 V</td>
<td>±20 µV/°C typical</td>
</tr>
<tr>
<td>±1.0 V</td>
<td>±10 µV/°C typical</td>
</tr>
<tr>
<td>±0.1 V</td>
<td>±5 µV/°C typical</td>
</tr>
<tr>
<td>±0.067 V</td>
<td>±2 µV/°C typical</td>
</tr>
<tr>
<td>±0.01 V</td>
<td>±2 µV/°C typical</td>
</tr>
</tbody>
</table>

**Voltage Gain Stability**

- Voltage input channels (all ranges): ±25 ppm/°C without self-cal (typical)
- and thermocouple input channels: ±5 ppm/°C with self-cal at any operating temperature (typical)

**Input Impedance**
40 MΩ differential

**Input Bias Current**
5 nA typical

**Common Mode Input Range**
±10 V

**Common Mode Rejection Ratio (CMRR)**

- 4 Hz filter: DC: 100 dB minimum; (50/60) Hz: 140 dB typical, 120 dB minimum
- 1 kHz filter: DC: 100 dB minimum; (50/60) Hz: 100 dB typical, 80 dB minimum

**Input Protection**
±35 V

**Network Connection**
10/100 Base-T

**Input Connector**
Cu-Cu mini-TC Jack
50-pin D-sub (EX1000A, EX1016A, EX1032A)

**Power Input**
(90-264) V AC, (50/60) Hz, 25 VA maximum

**Dimensions**
1.75” H x 17.5” W x 13.6” D
EX1000A/16A/32A/48A/TC

LXI Specifications

LXI Class Compliance
LXI Class A

Clock Specifications
Clock oscillator accuracy ±50 ppm
Synchronization accuracy Reports “synchronized” when < ±200 µs of the 1588 master clock
Timestamp
Accuracy As good as time synchronization down to 50 ns
Resolution 25 ns

IEEE 1588-Based Trigger Timing
Alarm
Trigger time accuracy As good as time synchronization down to 50 ns
Time to trigger delay 50 ns
Receive LAN[0-7] Event
Trigger time accuracy As good as time synchronization down to 50 ns
Time to trigger delay
Future timestamp 50 ns typical
Past/zero timestamp 1 ms maximum

Hardware Trigger Timing
LXI Trigger Bus
Time to trigger delay 55 ns typical
DIO Bus
Time to trigger delay 57 ns typical

Environmental Specifications

Temperature
Operating 0 °C to +50 °C
Storage -40 °C to +70 °C
Humidity 5% – 95% (non-condensing)
Altitude Up to 3000 m

Shock and Vibration
Conforms to MIL-PRF-28800F
Random Vibration 10 Min per Axis, MIL-PRF-2880F Class 3
Sinusoidal 5 to 55hz Resonance Search per MIL-PRF-2880F Class 3, each Axis
Shock 30g/Axis, 11mS half Sine pulse per MIL-PRF-2880F Class 3

Thermocouple Accuracy (Typical)

Values in °C

<table>
<thead>
<tr>
<th>Type</th>
<th>Min</th>
<th>Max</th>
<th>-100</th>
<th>0</th>
<th>100</th>
<th>300</th>
<th>500</th>
<th>700</th>
<th>900</th>
<th>1100</th>
<th>1400</th>
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</thead>
<tbody>
<tr>
<td>J</td>
<td>-200</td>
<td>1200</td>
<td>±0.25</td>
<td>±0.20</td>
<td>±0.20</td>
<td>±0.25</td>
<td>±0.30</td>
<td>±0.30</td>
<td>±0.35</td>
<td>±0.45</td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>-200</td>
<td>1372</td>
<td>±0.25</td>
<td>±0.20</td>
<td>±0.20</td>
<td>±0.20</td>
<td>±0.35</td>
<td>±0.35</td>
<td>±0.45</td>
<td>±0.55</td>
<td>±0.50</td>
</tr>
<tr>
<td>T</td>
<td>-200</td>
<td>400</td>
<td>±0.25</td>
<td>±0.20</td>
<td>±0.20</td>
<td>±0.20</td>
<td>±0.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>-200</td>
<td>900</td>
<td>±0.25</td>
<td>±0.20</td>
<td>±0.20</td>
<td>±0.20</td>
<td>±0.25</td>
<td>±0.30</td>
<td>±0.35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>-50</td>
<td>1788</td>
<td></td>
<td>±1.00</td>
<td>±0.75</td>
<td>±0.65</td>
<td>±0.65</td>
<td>±0.70</td>
<td>±0.70</td>
<td>±0.75</td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>-50</td>
<td>1788</td>
<td>±1.00</td>
<td>±0.75</td>
<td>±0.60</td>
<td>±0.60</td>
<td>±0.60</td>
<td>±0.65</td>
<td>±0.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>250</td>
<td>1820</td>
<td></td>
<td></td>
<td>±1.65</td>
<td>±1.10</td>
<td>±0.80</td>
<td>±0.70</td>
<td>±0.65</td>
<td>±0.65</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>-200</td>
<td>1300</td>
<td>±0.40</td>
<td>±0.25</td>
<td>±0.25</td>
<td>±0.25</td>
<td>±0.30</td>
<td>±0.35</td>
<td>±0.40</td>
<td>±0.40</td>
<td></td>
</tr>
</tbody>
</table>

Conditions
- 60-minute warm-up
- Guaranteed maximum limits are two times (2x) the typical values
- 7 days, ±5 °C from last self-calibration
- 20 °C to 30 °C, 1 year from full calibration
- Exclusive of thermocouple errors
- Exclusive of noise
- Common mode voltage = 0

Note for K type: 1400 accuracy is for 1372 °C
Note for T type: 500 accuracy is for 400 °C
### EX10SC-8B32-02
#### Input Range
0mA to 20mA or 4mA to 20mA

#### Input Resistance
- Normal: <50Ω
- Power Off: <50Ω

#### Input Protection
- Continuous: 40VAC
- Transient: ANSI/IEEE C37.90.1

#### CMR
- 120dB

#### NMR
- 70dB at 60Hz

#### Accuracy
- ±0.05% Span

#### Linearity
- ±0.02% Span

#### Stability
- ±25ppm/°C

#### Noise
- Output: 100kHz 250μVrms
- Bandwidth, –3dB: 3Hz
- Response Time, 90% Span: 150ms

---

### EX10SC-8B34-04
#### 283W 100 Ohm RTD (0 to 600 deg C)

#### Input Range Limits
- Input Range: 0°C to +600°C
- (+32°F to +1112°F)
- Accuracy: ±0.05°C

#### Input Resistance
- Normal: 50kΩ
- Power Off: 200kΩ
- Overload: 200kΩ

#### Input Protection
- Continuous: 240VAC
- Transient: ANSI/IEEE C37.90.1

#### Sensor Excitation Current
- 0.25mA
- ANS/IEEE C37.90.1

#### Lead Resistance Effect
- ±0.01Ω/°C; ±100Ω, 50kΩ
- ±10kΩ Sensor, ±0.02Ω/°C; ±10kΩ Sensor

#### CMV, Input to Output
- 1500Vrms max

#### CMV, Input to Output
- 1500Vrms max

#### Stability
- ±25ppm/°C
- ±20ppm/°C
- ±50ppm/°C

#### Noise
- Output, 100kHz: 200μVrms
- Bandwidth, –3dB: 3Hz
- Response Time, 90% Span: 150ms

#### RTD Standards
- Alpha Coefficient
  - DIN: 0.00385
  - JIS: JIS C 1604-1989
  - IEC: IEC 751

---

### EX10SC-8B36-04
#### Potentiometer Input (0 to 10K Ohms)

#### Input Range
0 to 10kΩ

#### Input Resistance
- Normal: 50kΩ
- Power Off: 100kΩ
- Overload: 100kΩ

#### Input Protection
- Continuous: 240VAC
- Transient: ANSI/IEEE C37.90.1

#### Sensor Excitation Current
- 0.25mA
- ANS/IEEE C37.90.1

#### Lead Resistance Effect
- ±0.01Ω/°C; ±100Ω, 50kΩ
- ±10kΩ Sensor, ±0.02Ω/°C; ±10kΩ Sensor

#### CMV, Input to Output
- 1500Vrms max

#### CMV, Input to Output
- 1500Vrms max

#### Stability
- ±25ppm/°C
- ±20ppm/°C
- ±50ppm/°C

#### Noise
- Output, 100kHz: 200μVrms
- Bandwidth, –3dB: 3Hz
- Response Time, 90% Span: 150ms

---

### EX10SC-8B38-01
#### Full Bridge Strain (3.33V Excitation)

#### Model 01
- Output: ±10mV to ±100mV
- Input Bias Current: ±0.5nA
- Input Range: 0°C to +600°C
- Accuracy: ±0.45°C

#### Model 02
- Output: ±10mV to ±100mV
- Input Bias Current: ±0.5nA
- Input Range: 0°C to +600°C
- Accuracy: ±0.45°C

#### Bandwidth
- Model 01: 8kHz
- Model 02: 8kHz

#### Input Range
- Model 01: –10mV to +10mV
- Model 02: –30mV to +30mV

#### Sensitivity
- Model 01: 3mV/V
- Model 02: 3mV/V

---

### EX10SC-8B38-02
#### Full Bridge Strain (10V Excitation)

#### Model 01
- Output: ±100mV
- Input Bias Current: ±0.5nA
- Input Range: 0°C to +600°C
- Accuracy: ±0.45°C

#### Model 02
- Output: ±100mV
- Input Bias Current: ±0.5nA
- Input Range: 0°C to +600°C
- Accuracy: ±0.45°C

#### Bandwidth
- Model 01: 8kHz
- Model 02: 8kHz

#### Input Range
- Model 01: –10mV to +10mV
- Model 02: –30mV to +30mV

#### Sensitivity
- Model 01: 3mV/V
- Model 02: 3mV/V

---

### EX10SC-8B39-03
#### 0 to 10V RMS

#### Frequency Range
45Hz to 1000Hz

#### Accuracy
- ±0.25% Factory

#### Isolation
- 1500Vrms Transformer

#### Input Overload Protected
- 350Vrms Max (Peak AC & DC)

#### Transient Protection
- ANSI/IEEE C37.90.1

#### CMR
- 120dB

---

### EX10SC-8B35-04
#### 4W 100 Ohm RTD (0 to 600 deg C)

#### Input Range Limits
- Input Range: –200°C to +850°C
- (10Ω Pt)

#### Input Resistance
- Normal: 50kΩ
- Power Off: 200kΩ
- Overload: 200kΩ

#### Input Protection
- Continuous: 240VAC
- Transient: ANSI/IEEE C37.90.1

#### Sensor Excitation Current
- 0.25mA
- ANSI/IEEE C37.90.1

#### Lead Resistance Effect
- ±0.005°C/Ω
- ANSI/IEEE C37.90.1

#### CMV, Input to Output
- 1500Vrms max

#### NMR
- 70dB at 60Hz

#### Accuracy
- ±0.05% Span

#### Linearity
- ±0.02% Span

#### Stability
- ±20ppm/°C
- ±50ppm/°C

#### Noise
- Output, 100kHz: 200μVrms
- Bandwidth, –3dB: 3Hz
- Response Time, 90% Span: 150ms

#### RTD Standards
- Alpha Coefficient
  - DIN: DIN 43760
  - JIS: JIS C 1604-1989
  - IEC: IEC 751

---

### EX10SC-8B38-01
#### Full Bridge Strain (3.33V Excitation)
### EX10SC-8B41-01
+/-1V Input with 1Khz Bandwidth

### EX10SC-8B41-03
+/-10V Input with 1Khz Bandwidth

### EX10SC-8B41-07
+/-20V Input with 1Khz Bandwidth

### EX10SC-8B41-09
+/-40V Input with 1Khz Bandwidth

### EX10SC-8B41-12
+/-60V Input with 1Khz Bandwidth

<table>
<thead>
<tr>
<th>Input Range</th>
<th>±1V to ±60V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Bias Current</td>
<td>±0.05nA</td>
</tr>
</tbody>
</table>

#### Input Resistance
- Normal: 500kΩ (minimum)
- Power Off: 500kΩ (minimum)
- Overload: 500kΩ (minimum)

#### Input Protection
- Continuous: 240VAC
- Transient: ANSI/IEEE C37.90.1

#### CMV, Input to Output
- 1500Vrms max

#### Accuracy, Linearity, Stability
- Offset: ±0.05% Span
- Gain: ±25ppm/°C
- Stability: ±0.02% Span

#### Input Bias Current
- ±0.05nA

### EX10SC-8B41-02
Frequency Input (0 to 1KHz)

#### Input Range
- 0Hz to 100kHz
- Input Threshold: Zero Crossing
- Minimum Input: 0.8V
- Maximum Input: 2.4V
- Minimum Pulse Width: 4μs
- TTL Input Low: 0.8V
- TTL Input High: 2.4V
- Input Hysteresis: ±0.5mV
- Zero Crossing
- TTL: 1.5V

#### Input Resistance
- Normal: 68kΩ
- Power Off: 68kΩ
- Overload: 68kΩ

#### Input Protection
- Continuous: 240VAC
- Transient: ANSI/IEEE C37.90.1

#### CMV, Input to Output
- 1500Vrms max

#### Accuracy, Linearity, Stability
- Offset: ±0.05% Span
- Gain: ±25ppm/°C
- Stability: ±0.02% Span

#### Noise
- Output, 100kHz: 500μVrms
- Bandwidth: ±3dB: 1kHz
- Response Time, 90% Span: 65μs

### Signal Conditioning Module Specifications

#### EX10SC-8B42-01
2 Wire Transmitter Interface

<table>
<thead>
<tr>
<th>Input Range</th>
<th>4mA to 20mA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Resistance</td>
<td>35Ω</td>
</tr>
<tr>
<td>Power Off</td>
<td>35Ω</td>
</tr>
</tbody>
</table>

#### Input Protection
- Continuous: 40VAC
- Transient: ANSI/IEEE C37.90.1

#### Loop Supply Voltage
- 12VDC

#### Loop Supply Protection
- 40VAC

#### CMV, Input to Output
- 1500Vrms max

#### CMR (50Hz or 60Hz)
- 100dB

#### NMR (-3dB at 1kHz)
- 100dB per decade above 1kHz

#### Accuracy, Linearity, Stability
- Offset: ±0.05% Span
- Gain: ±100ppm/°C
- Stability: ±0.02% Span

#### Noise
- Output, 100kHz: 500μVrms
- Bandwidth: ±3dB: 1kHz
- Response Time, 90% Span: 65μs

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**Note**: The above specifications are for reference purposes only and may vary depending on the specific model and manufacturer.
Ordering Information

<table>
<thead>
<tr>
<th>MODEL</th>
<th>TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>EX1000A</td>
<td>48-channel Precision Voltage Instrument</td>
</tr>
<tr>
<td>EX1000A-TC</td>
<td>48-channel Precision Thermocouple and Voltage Instrument</td>
</tr>
<tr>
<td>EX1016A</td>
<td>16-channel Precision Thermocouple Instrument</td>
</tr>
<tr>
<td>EX1032A</td>
<td>32-channel Precision Thermocouple Instrument</td>
</tr>
<tr>
<td>EX1048A</td>
<td>48-channel Precision Thermocouple Instrument</td>
</tr>
<tr>
<td>70-0355-900</td>
<td>Rack Mount Kit for EX10XXA Series</td>
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<tr>
<td>70-0355-902</td>
<td>Table Top Kit for EX10XXA Series</td>
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<tr>
<td>EX10SC</td>
<td>16-Channel Signal Conditioning Expansion Chassis (Modules sold separately. See below)</td>
</tr>
<tr>
<td>EX10SC-RK001</td>
<td>Rackmount slide rails</td>
</tr>
</tbody>
</table>

EX10SC MODULES

<table>
<thead>
<tr>
<th>MODEL</th>
<th>TYPE</th>
<th>INPUT RANGE</th>
<th>OUTPUT RANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>EX10SC-8B32-02</td>
<td>Current input</td>
<td>0 to 20mA</td>
<td>0 to +5V</td>
</tr>
<tr>
<td>EX10SC-8B33-03</td>
<td>RMS Voltage</td>
<td>0 to 10V</td>
<td>0 to +5V</td>
</tr>
<tr>
<td>EX10SC-8B34-04</td>
<td>2/3-Wire RTD (100Ω Pt)</td>
<td>0°C to +600°C (+32°F to +1112°F)</td>
<td>0 to +5V</td>
</tr>
<tr>
<td>EX10SC-8B35-04</td>
<td>4-Wire RTD (100Ω Pt)</td>
<td>0°C to +600°C (+32°F to +1112°F)</td>
<td>0 to +5V</td>
</tr>
<tr>
<td>EX10SC-8B36-04</td>
<td>Potentiometer</td>
<td>0 to 10kΩ</td>
<td>0 to +5V</td>
</tr>
<tr>
<td>EX10SC-8B38-01</td>
<td>Strain gage</td>
<td>±10mV (excitation +3.333V / sense 3mV/V)</td>
<td>±5V</td>
</tr>
<tr>
<td>EX10SC-8B38-02</td>
<td>Strain gage</td>
<td>±30mV (excitation +10.0V / sense 3mV/V)</td>
<td>±5V</td>
</tr>
<tr>
<td>EX10SC-8B41-01</td>
<td>Voltage input</td>
<td>±1V</td>
<td>±5V</td>
</tr>
<tr>
<td>EX10SC-8B41-03</td>
<td>Voltage input</td>
<td>±10V</td>
<td>±5V</td>
</tr>
<tr>
<td>EX10SC-8B41-07</td>
<td>Voltage input</td>
<td>±20V</td>
<td>±5V</td>
</tr>
<tr>
<td>EX10SC-8B41-09</td>
<td>Voltage input</td>
<td>±40V</td>
<td>±5V</td>
</tr>
<tr>
<td>EX10SC-8B41-12</td>
<td>Voltage input</td>
<td>±60V</td>
<td>±5V</td>
</tr>
<tr>
<td>EX10SC-8B42-01</td>
<td>2-wire Transmitter</td>
<td>4 to 20mA</td>
<td>0 to +5V</td>
</tr>
<tr>
<td>EX10SC-8B45-02</td>
<td>Frequency input</td>
<td>0 to 1kHz</td>
<td>0 to +5V</td>
</tr>
<tr>
<td>EX10SC-8B45-05</td>
<td>Frequency input</td>
<td>0 to 10kHz</td>
<td>0 to +5V</td>
</tr>
<tr>
<td>EX10SC-8B45-08</td>
<td>Frequency input</td>
<td>0 to 100kHz</td>
<td>0 to +5V</td>
</tr>
<tr>
<td>EX10SC-8B47J-12</td>
<td>J-thermocouple</td>
<td>–100°C to +760°C (-148°F to +1400°F)</td>
<td>0 to +5V</td>
</tr>
<tr>
<td>EX10SC-8B47K-13</td>
<td>K-thermocouple</td>
<td>–100°C to +1350°C (-148°F to +2462°F)</td>
<td>0 to +5V</td>
</tr>
<tr>
<td>EX10SC-8B47T-06</td>
<td>T-thermocouple</td>
<td>–100°C to +400°C (-148°F to +752°F)</td>
<td>0 to +5V</td>
</tr>
</tbody>
</table>

EX10SC CABLE ASSEMBLIES

<table>
<thead>
<tr>
<th>MODEL</th>
<th>TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>EX10SC-CBL01</td>
<td>24&quot; EX10SC to EX10xx interconnect cable</td>
</tr>
</tbody>
</table>