

You can record and transmit data anywhere with Daxus.

Daxus is a small yet powerful data acquisition device. It can be used as a single stand-alone unit for troubleshooting and maintenance, stacked for high channel count jobs, or networked with multiple units located throughout your facility for synchronized data recording in distributed networking applications.

Daxus captures, handles, and stores all data locally. You can record a few signals or hundreds of parameters essential to maintaining efficient operations in any industry. Standing at just 120 mm tall x 324 mm wide (4.7" x 12.8") and weighing just 3.2 kg. (7 lbs.), the Daxus is compact and tough enough for any environment.

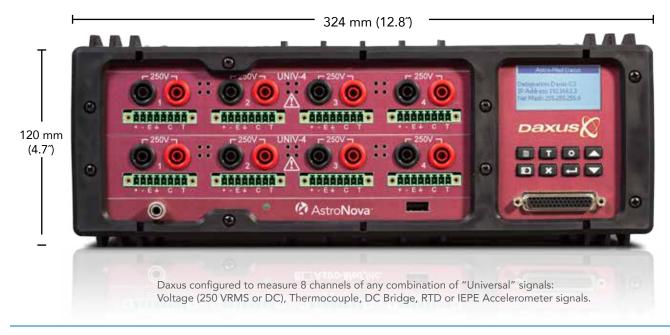
USE IN ANY CONFIGURATION:

Mobile. Daxus is all about mobility. When you are away from your system, you can view in real-time, scrolling waveform data of your ongoing data acquisition on your smartphone or tablet via the Daxus mobile app. You can also receive alerts and review recent captures for quick, on-the-spot troubleshooting.

Networked. Multiple Daxus units can be used throughout your operation. In networked applications, an unlimited number of Daxus units can be controlled and monitored from a central workstation or multiple PCs on the network. You are able to communicate with the Daxus units wirelessly or through the Gigabit Ethernet interface. Daxus captures, handles, and stores all data locally, so network bandwidth has no impact on sample rates.



You can view in real-time, scrolling waveform data of your ongoing data acquisition on your smartphone or tablet via the Daxus mobile app.





Stand-Alone. When used as a stand-alone device, simply configure your Daxus on a PC using the included software, then disconnect the PC and allow the Daxus to collect data. Or, load your Daxus setup files onto a USB thumb drive and upload them directly to the Daxus for storage. Daxus features a front panel display with dedicated control buttons for loading setup files, starting or stopping data captures and triggering. You can stack multiple Daxus units to achieve higher channel counts as needed.



Connect Daxus to record your signals



Observe in real-time at your PC



View in real-time on your tablet for mobile use on the go

PC SOFTWARE

You can stack multiple Daxus units with any mix of module types to achieve higher channel counts as needed

Your Daxus can be used either with or without a PC. For PC-based applications, the powerful Daxus software provides intuitive drop-down menus and a customizable control panel to set up one-touch controls for your convenience. Available functions include: loading and saving setup files, amplifier settings, data capture and triggering parameters, cursor measurements and review and analysis functions.

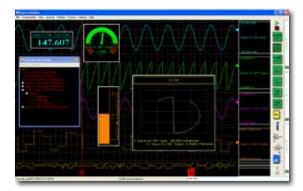


In Real Time operation, Daxus signals can be viewed on a PC in scrolling waveform style. For those who need a Scope presentation, Daxus provides a DSO-style display useful for viewing high speed signals in detail or where a stationary waveform view is preferred. The Review capability is designed to bring up previously captured data for analysis including expansion, compression, search features, measurements and more.

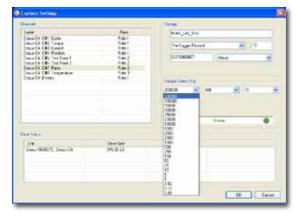
Daxus software also includes an advanced **Derived Channel** feature that enables real time mathematics on the fly. Pass your data through an equation that you create and see calculated values in the moment, not after the fact. Derived channels can be developed based on data from any of the active channels and are displayed as additional channels. Math functions include: +, -, x, ÷, Square Root, Exponential, Sin, Cos, Tan, Absolute Value, Integration and Differentiation.

Derived channels can be developed based on data from any of the active channels

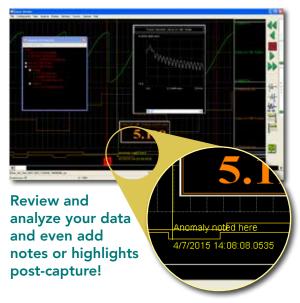




Customize your data viewing with waveforms, meters, cursor measurements or analysis windows



Powerful data capture includes multiple sample rates, advanced triggering and automation



Any channel can be set up to display the **Engineering Units** of your choice with linear scaling. This allows data to be viewed in familiar terms such as Amps, PSI, RPM, Ft-lbs., etc.

A built-in **Meter Package** gives you the ability to display screen data in an easy to read visual format. Choose from various meter formats including gage, numeric, horizontal or vertical bar, needle and LED readouts. They can be sized and placed anywhere on the screen for a truly custom look and feel.

Easy-to-use Cursors allow immediate measurements with functions such as: Time, Sample Point, Average, Min/Max & Peak-Peak Slope, RMS, Sum, Sum of Squares, Variance, Standard Deviation and Area.

RECORDING CAPACITY

Each Daxus has great data recording capacity, with a standard 500GB SATA drive or an optional Solid State Drive for more demanding environments. Intelligent Data Capture features include pre/post triggering, logical and/or triggers, multiple sample rates and data capture automation for repetitive testing. A battery backup ensures no loss of data in the event of a power disruption.

OPTIONAL INTERFACES

Interfaces include CAN Bus for automotive testing, IRIG time codes for aerospace applications and GPS time and location stamping for transportation or other applications.



DESIGN YOUR DAXUS

Daxus Mainframe supports five different types of signal input modules featured below.

Each Daxus accepts two modules and three versions of Daxus:

- 1. An unpopulated mainframe for which you can specify two signal modules PN: 42870000
- 2. A pre-packaged Daxus that includes two ISEV-4 signal input modules PN: 42870100 PN: 42870200
- 3. A pre-packaged Daxus that includes two UNIV-4 signal input modules



UNIV-4

P/N: 32950000



NIDX-16

P/N: 32950020



ISEV-4

P/N: 32950005



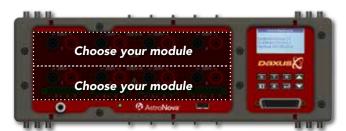
IHVM-4

P/N: 32950030



IHVM-4P

P/N: 32950035



Daxus mainframe without modules

P/N: 42870000



Daxus pre-packaged with 2 UNIV-4 Modules

P/N: 42870200

The UNIV-4 module accommodates 4 signals. It accepts voltages up to 250 Vrms using double banana connectors. Additional universal capabilities are: DC bridge measurements, thermocouple measurements with a type U mini thermocouple plug in, and RTD and IEPE transducer measurements that use available adaptors for the screw terminal provided.

The NIDX-16 module accommodates 16 non-isolated differential signals up to 40 VDC. Connections are made utilizing screw terminal connectors.

The ISEV-4 module accommodates 4 signals. It accepts voltages up to 250 Vrms using double banana connectors.

The IHVM-4 module accommodates 4 signals. It accepts voltages up to 600 Vrms or 1000 VDC using double banana connectors.

The IHVM-4P accepts 4 inputs up to 600 Vrms and provides 4 power calculations for each input for up to 16 measurements. Sample rates up to 50 KHz are selectable by the user.



Daxus pre-packaged with 2 ISEV-4 Modules

P/N: 42870100



The back of Daxus

MODULE SPECIFICATIONS



UNIV-4

P/N: 32950000

UNIV-4 COMMON SPECIFICATIONS	
Channels Per Module	4
Rated Isolation	250 VRMS or DC, Cat II (iso-common to chassis and other iso-commons)
Frequency Counter Capability	Yes, all channels. Software selectable.
Counter Modes	Gated time frequency counter, cycle based frequency counter, pulse counter, pulse width detector, period width detector, duty cycle detector, gated pulse event counter, quadrature counter, edge separation detector.
Frequency ctr range	2 – 40 KHz
Frequency ctr accuracy	+ 0.07% of Measurement + .002 Hz
Min counter input amplitude	25% of span for frequency and pulse counters, 90% of span for all other modes
Pulse counter range	4,000,000,000 maximum. (16 bit display resolution)
Pulse width accuracy	.002% of measurement + .00167% of span + 0.7 μs
Pulse width range	25 μs – 2,500,000
Edge separation accuracy	.002% of measurement + .00167% of span + 0.7 μs
Edge separation range	25 μs – 5,000,000 μs
Period width accuracy	.001% of measurement + .00167% of span + 0.7 μs
Period width range	25 μs – 100,000 μs (10 Hz – 40 KHz)
Duty cycle accuracy	.5% (Inputs in the 1 Hz - 5 KHz range with 5% - 95% duty cycles)
Cold Start Drift	< 0.1% of attenuator (60 min.)

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UNIV-4 SINGLE ENDED INPUT	
Connector	Guarded banana jacks (red/black)
Input	Single-ended, AC/DC coupled
Sample Rate	200 KHz
A/D	16 bit SAR (one per channel)
Anti-Aliasing Filter	4 pole Bessel
Bandwidth	40 KHz (-3dB) (400V, 200V and 100V Attenuators) 35 KHz (-3dB) (10V and 1V attenuators)
AC Coupled 3dB Point	< 0.54 Hz (0.47 Hz typ)
Off Ground Measurements	Yes
Zero Suppression	Yes, digital
Attenuator Ranges	1, 10, 50, 200 and 400 Volt
Measurement Ranges	± 400 V (400 VFS or 800 VFS w/ zero offset) ± 200 V (200 VFS or 400 VFS w/ zero offset) ± 100 V (100 VFS or 200 VFS w/ zero offset) ± 10 V (10 VFS or 20 VFS w/ zero offset) ± 1 V (1 VFS or 2 VFS w/ zero offset. 0.1V min span)
Max Rated Input	250 Vrms or DC, Cat II
Max Transient Input	± 800 V peak (not to exceed 250Vrms)
DC Accuracy (25°C)	± 0.06% of attenuator
Overshoot	< 0.25%
Intrinsic Noise (pk-pk)	< 0.02% of attenuator + .02% of span (400V through 10V atts) < 0.16% of attenuator + .02% of span (1V att)
IMR at 60 Hz	Better than -80 dB
Min Input Impedance	> 1 Megohm
UNIV-4 DIFFERENTIAL INPUT	

8 wire screw terminal

4 pole Bessel

35 KHz

Differential, DC coupled

16 bit SAR (one per channel)

UNIV-4 DIFFERENTIAL INPUT Continued	
Measurement Ranges	± 1000 mV ± 100 mV ± 20 mV
Max Transient Input	± 20 V
Common Mode Voltage	± 10V
Zero Suppression	Yes, digital.
DC Accuracy (25°C)	± 0.06% of attenuator
Overshoot	< 0.25%
Intrinsic Noise (pk-pk)	< 0.02% of attenuator + .02% of span (1000 mV Att) < 0.05% of attenuator + .02% of span (100 mV Att) < 0.18% of attenuator + .02% of span (20 mV Att)
IMR at 60 Hz	Better than -60 dB
Min Input Impedance	> 300 Kilohm (150 Kilohm balanced to isolated common)



NIDX-16 P/N: 32950020

NIDX-16 SPECIFICATIONS	
Channels Per Module	16
Connector	8 wire screw terminals (8)
Input	Differential, DC coupled
Bandwidth	4 KHz (-3dB)
Sample Rate	20 KHz
A/D	16 bit SAR (one per channel)
Anti-Aliasing Filter	4 pole Bessel
Frequency Counter Capability	Yes, first 8 channels. Software selectable.
Counter Modes	Gated time frequency counter, cycle based frequency counter, pulse counter, pulse width detector, period width detector, duty cycle detector, gated pulse event counter, quadrature counter, edge separation detector.
Frequency ctr range	2 – 3 KHz
Frequency ctr accuracy	+ 0.07% of Measurement + .002 Hz
Min counter input amplitude	25% of span for frequency and pulse counters, 90% of span for all other modes
Pulse counter range	4,000,000,000 maximum. (16 bit display resolution)
Pulse width accuracy	.002% of measurement + .00167% of span + 0.7 μs
Pulse width range	25 μs – 2,500,000
Edge separation accuracy	.002% of measurement + .00167% of span + 0.7 μs
Edge separation range	25 μs – 5,000,000 μs
Period width accuracy	.001% of measurement + .00167% of span + 0.7 μs
Period width range	25 μs – 100,000 μs (10 Hz – 30 KHz)
Duty cycle accuracy	.5% (Inputs in the 1 Hz - 5 KHz range with 5% - 95% duty cycles)
Off Ground Measurements	Yes
Zero Suppression	Yes, digital
Attenuator Ranges	40, 20, 10 5 and 1 Volt
Measurement Ranges	± 40 V (40 VFS or 80 VFS w/ zero offset) ± 20 V (20 VFS or 40 VFS w/ zero offset) ± 10 V (10 VFS or 20 VFS w/ zero offset) ± 5 V (5 VFS or 10 VFS w/ zero offset) ± 1 V (1 VFS or 2 VFS w/ zero offset)
DC Accuracy (25°C)	± 0.1% of attenuator
Overshoot	< 1%
Intrinsic Noise (pk-pk)	< 0.2% of attenuator
IMR at 60 Hz	Better than -60 dB
Min Input Impedance	> 500 Kilohm

Connector

Sample Rate

Bandwidth

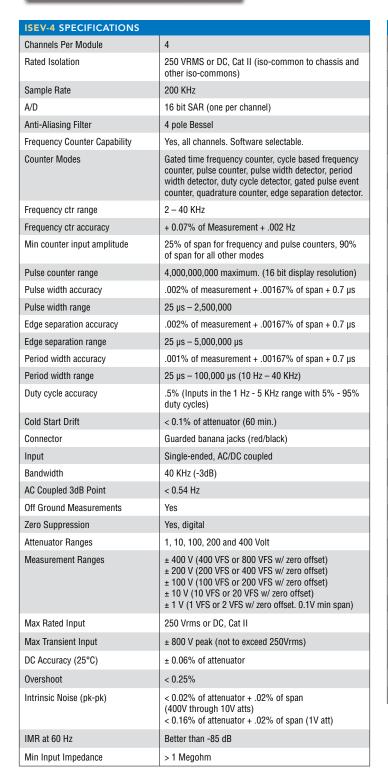
Anti-Aliasing Filter

Input



ISEV-4

P/N: 32950005





IHVM-4 P/N: 32950030

IHVM-4 SPECIFICATIONS	
Channels Per Module	4
Connector	Guarded banana jacks (red/black)
Input	Differential, DC coupled
Bandwidth	35 KHz (-3dB)
Rated Isolation	600 VRMS or DC, Cat III (channel to chassis and other channels) 1,000 VRMS or DC, Cat II (channel to chassis and other channels)
Sample Rate	200 KHz
A/D	16 bit SAR (one per channel)
Anti-Aliasing Filter	4 pole Bessel
Frequency Counter Capability	Yes, all channels. Software selectable.
Counter Modes	Gated time frequency counter, cycle based frequency counter, pulse counter, pulse width detector, period width detector, duty cycle detector, gated pulse event counter, quadrature counter, edge separation detector.
Frequency ctr range	2 – 30 KHz
Frequency ctr accuracy	+ 0.07% of Measurement + .002 Hz
Min counter input amplitude	25% of span for frequency and pulse counters, 90% of span for all other modes
Pulse counter range	4,000,000,000 maximum. (16 bit display resolution)
Pulse width accuracy	.002% of measurement + .00167% of span + 0.7 μs
Pulse width range	25 μs – 2,500,000
Edge separation accuracy	.002% of measurement + .00167% of span + 0.7 μs
Edge separation range	25 μs – 5,000,000 μs
Period width accuracy	.001% of measurement + .00167% of span + 0.7 μs
Period width range	25 μs – 100,000 μs (10 Hz – 30 KHz)
Duty cycle accuracy	.5% (Inputs in the 1 Hz - 5 KHz range with 5% - 95% duty cycles)
Off Ground Measurements	Yes
Zero Suppression	Yes, digital
Attenuator Ranges	40, 200 and 1000 Volt
Measurement Ranges	± 1,000 V (1000 VFS or 2000 VFS w/ zero offset) ± 200 V (200 VFS or 400 VFS w/ zero offset) ± 40 V (40 VFS or 80 VFS w/ zero offset)
Max Rated Input	600 Vrms or DC, Cat III, 1000V DC, Cat II
DC Accuracy (25°C)	± 0.06% of attenuator
Overshoot	< 0.25%
Intrinsic Noise (pk-pk)	< 0.18% of attenuator + .05% of span (40V att) < 0.045% of attenuator + .02% of span (200V att) < 0.015% of attenuator + .025% of span (1000V att)
IMR at 60 Hz	Better than -60 dB
Min Input Impedance	> 10 Megohm

MODULE SPECIFICATIONS



IHVM-4P P/N: 32950035

The IHVM-4P is a new high voltage signal input module designed to provide critical power measurements required in many industries where power quality is essential. The IHVM-4 P accepts 4 inputs up to 600 Vrms and provides 4 power calculations for each input for up to 16 measurements. Sample rates up to 50 KHz are selectable by the user.

Two modes of operation are included. The standard mode provides calculations for RMS, applied filters, frequency counters, and other powerful math functions. This mode allows the user to decide how the output channels are generated.

The power mode provides calculations for power factor, true power, apparent power and frequency based on current probe inputs. The IHVM-4 P module is ideal for single and three phase power (2 modules required) measurements as well as a variety of other applications.

- 4 High Voltage Inputs up to 600 Vrms
- 4 Power Calculations per Input for up to 16 Measurements
- Sample Rates up to 50 KHz
- Two Operational Modes
- Single and Three Phase* Power Measurements

IHVM-4P SPECIFICATIONS	
Channels Per Module	4
Connector	Guarded banana jacks (red/black)
Input	Differential, DC coupled
Bandwidth	14 KHz (-3dB)
Rated Isolation	600 VRMS or DC, Cat III (channel to chassis and other channels) 1,000 VRMS or DC, Cat II (channel to chassis and other channels)
Sample Rate	50 KHz
A/D	16 bit SAR (one per channel)
Anti-Aliasing Filter	4 pole Bessel
Frequency Counter Capability	Yes, all channels. Software selectable.
Counter Modes	Gated time frequency counter, cycle based frequency counter, pulse counter, pulse width detector, period width detector, duty cycle detector, gated pulse event counter, quadrature counter, edge separation detector.
Frequency ctr range	Up to 20 KHz
Frequency ctr accuracy	+ 0.07% of Measurement + .002 Hz
Min counter input amplitude	25% of span for frequency and pulse counters, 90% of span for all other modes
Pulse counter range	4,000,000,000 maximum. (16 bit display resolution)
Pulse width accuracy	.002% of measurement + .00167% of span + 0.7 μs
Pulse width range	25 μs – 2,500,000
Edge separation accuracy	.002% of measurement + .00167% of span + 0.7 μs
Edge separation range	25 μs – 5,000,000 μs
Period width accuracy	.001% of measurement + .00167% of span + 0.7 μs
Period width range	25 μs – 100,000 μs (10 Hz – 30 KHz)
Duty cycle accuracy	5% (Inputs in the 1 Hz - 5 KHz range with 5% - 95% duty cycles)
Off Ground Measurements	Yes
Zero Suppression	Yes, digital
Attenuator Ranges	40, 200 and 1000 Volt
Measurement Ranges	± 1,000 V (1000 VFS or 2000 VFS w/ zero offset) ± 200 V (200 VFS or 400 VFS w/ zero offset) ± 40 V (40 VFS or 80 VFS w/ zero offset)
Max Rated Input	600 Vrms or DC, Cat III, 1000V DC, Cat II
DC Accuracy (25°C)	± 0.06% of attenuator
Overshoot	< 0.1%
Intrinsic Noise (pk-pk)	< 0.047% of attenuator + .013% of span (40V att) < 0.013% of attenuator + .02% of span (200V att) < 0.005% of attenuator + .024% of span (1000V att)
IMR at 60 Hz	Better than -75 dB
Min Input Impedance	> 10 Megohm

^{*2} IHVM-4P modules are required

ACCESSORIES



ADP-I P/N: 32950501 IEPE Adapter for UNIV-4 Module



ADP-T P/N: 32950502 Thermocouple Adapter for UNIV-4 Module



ADP-R P/N: 32950503 RTD Adapter for UNIV-4 Module



GL-40 P/N: 13442000 General Use Lead Set



LC-40 P/N: 13441003 Test Leads/Clips: Pair of Test Lead and Pincer Clips (1 red, 1 black)



LC-40S P/N: 13441201 Test Leads/Spades: Pair of Test Leads with Spade Connector for # 8 Screw



CLM-420 P/N: 26487000 4 to 20 mA Current Adapter for **Current Loop Measurements**



DCS-8 P/N: 13123000 10 A, 100 mV Current Shunt for **Current Measurement**



SL261 P/N: 24661201 Current Probe Reads AC or DC Current, 100 A Maximum



MR411 P/N: 24661200 Current Probe Reads AC or DC Current, 600 A Maximum



MR521 P/N: 24661100 Current Probe Reads AC or DC Current, 1500 A Maximum



MN255 P/N: 24661300 Current Probe Reads AC Current, 240 A Maximum



SR759 P/N: 24661400 Current Probe Reads AC Current, 1200 A Maximum



JM875 P/N: 24661500 Current Probe Reads AC Current, 3000 A Maximum



FP300A P/N: 24661600 Flexible Current Probe Reads AC Current, 300 A Maximum



FP3000A P/N: 24661700 Flexible Current Probe Reads AC Current, 3000 A Maximum



FP6000A P/N: 24661620



ADP-4810 P/N: 25765000



DAX-RACK KIT P/N: 42798100



SOFT CASE DAXUS P/N: 42737000

DAXUS SYSTEM SPECIFICATIONS

SYSTEM	
PC Connection	Gigabit Ethernet (10/100/1000Base-T)
Input Module Slots	2
Link Ports	Multiple unit synchronization for higher channel counts
Digital I/O	8 Events, alarms, programmable I/O
User Interface	Display with easy-to-use menu system and dedicated buttons for local control.
DATA ACQUISITION	
Recording Method	Internal SATA disk drive.
Maximum Sample Rate	200,000 samples/second/channel
Minimum Sample Rate	1 sample/minute
Multiple Sample Rates	Yes, up to 3 different rates
Total Capacity	500 GB (400GB or 800GB SSD optional)
Maximum Record	Limited to drive size
Time Stamp	Time and Date automatically saved with data
Header	Information on units, range, sample rates, etc. saved with data
Events	Recorded with data
Trigger Point	Pre and post trigger is user adjustable
Auto Re-Arm	Allows automatic stacking of captures
QuickLook	Yes
SIGNAL MODULES	
ISEV-4	4-Channel Isolated Voltage Module (accepts up to 250 Vrms)
UNIV-4	4-Channel Universal Module Voltage and DC Bridge (accepts up to 250 Vrms). Supports thermocouple, RTD and IEPE transducers with available adapters
IHVM-4	4-Channel High Voltage Module (accepts up to 600 Vrms or 1000 VDC)
NIDX-16	16-Channel Non-isolated Differential Voltage Module (accepts up to 30 Vrms or 40 VDC)
IHVM-4P	4-Channel Isolated High Voltage Module (accepts up to 600Vrms or 1000 VDC) with power calculations
GENERAL	
Maximum Channels	32 (module dependent)
Engineering Units	User defined units with y=mx+b scaling
Pre-capture Filter	Lowpass, highpass, bandpass, bandstop
Advanced DSP	RMS, Integration, Differentiation
Post-capture Filter	Lowpass, highpass, bandpass, bandstop, RMS

Counter Modes	Gated time frequency counter, cycle based frequency counter, pulse counter, pulse width detector, period
	width detector, duty cycle detector, quadrature counter, edge separator (module dependent)
Math Functions	Addition, Subtraction, Multiplication, Division, Trigo- nometric, Statistical and other general math functions
Calibration	Semi-automated to external reference
ADDITIONAL FEATURE	S
GPS	For time and location synchronization
IRIG Timestamp	IRIG A and B for timecode synchronization
CAN bus	Support for CAN signal acquisition, 2 ports
Wireless	Wireless connectivity
UNIT POWER	
Input Voltage	14-24 VDC
Power Consumption	60 W Max (35W Typical)
AC POWER ADAPTER	(INCLUDED)
Input voltage	100-240 VAC
Frequency	50 - 60 Hz
Output voltage	19V DC
Maximum Power	70W
BATTERY	
Battery Type	Lithium Ion (rechargeable)
Charge Time	4 Hours
Battery Life	20 minutes on single charge
PHYSICAL	
Enclosure	Aluminum
Dimensions (inches)	324mm W x 180 mm D x 120 mm H (12.8"W x 7"D x 4.7"H) with endcaps
Weight	3.2 kg (7 lbs.)
COMPLIANCE	
Safety	EN 61010-1:2010, UL 61010-1:2012, CSA C22.2:2012
EMC	FCC Part 15, Subpart B, Class A, EN 61326
Power Harmonics	IEC1000-3-2
ENVIRONMENTAL	
Operating Temp	0 to 40 °C (32 to 104 °F)
Storage Temp	-20 to 60 °C (-4 to 140 °F)
Operating Humidity	10% to 90% non condensing
Shock	MIL-810-F Method 516.5, Procedure I*
Vibration	MIL-810-F Method 514.5, Procedure I*
	*With solid state drive ontion

^{*}With solid state drive option

Other Data Acquisition Products Available from AstroNova



TMX features up to 96 channels, an exclusive full-color 17" advanced touch screen technology, a dedicated, 1 TByte Removable Hard Drive for Data Capture, and pre-defined set up options.



TMX-18 features 18 channels of voltage and DC Bridge inputs, a high resolution, 17" touch screen display, and pre-defined set up options.



DDX100 Smartcorder features 8–32 channels of powerful data recording in a compact and lightweight system with a 500 GB hard drive and battery operation.

AstroNova[™] Test & Measurement

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