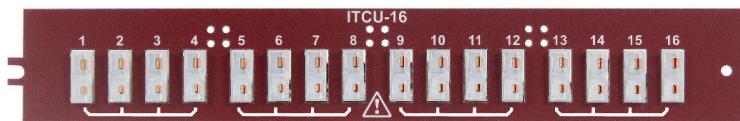


ITCU-16

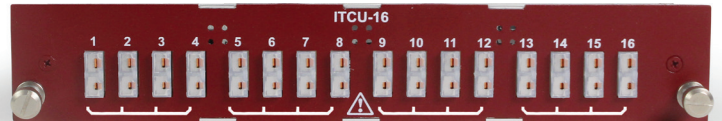
Temperature Input Module for DXS-100 Daxus and DDX-100 SmartCorder Data Acquisition Systems

MODULE OVERVIEW

The ITCU-16 is a high-accuracy 16-channel thermocouple input module for the AstroNova DXS-100 Daxus and DDX-100 SmartCorder data acquisition systems. The ITCU-16 is ideal for high channel count applications requiring high accuracy.



DXS-100 Daxus



DDX-100 SmartCorder

MODULE HIGHLIGHTS

- **Direct connectivity with standard Mini-TC connectors**
- **High accuracy (<1 deg C typical)**
- **High resolution (24-bit)**
- **300 Vrms, Cat II rated isolation**
- **Open thermocouple detection**
- **50/60 Hz noise rejection**
- **High sample rate mode (50 Samples/sec)**
- **Cold junction compensation**

ORDERING INFORMATION

ITCU-16 for the DXS-100 Daxus and DDX-100 SmartCorder data acquisition systems

SYSTEM	PART NO.
DXS-100 Daxus	32950010
DDX-100 SmartCorder	32950610

POPULAR ACCESSORIES

ITEM	PART NO.	DESCRIPTION
DAX-SW	14004910	Daxus Offline Software additional license for one user
DDX-SW	14004912	DDX-100 SmartCorder Offline Software
SC-DDX	41047200	Soft Carry Case for DDX-100 SmartCorder
HC-DDX	41047220	Hard Pelican Carry Case for DDX-100 SmartCorder
HC-DAX	41047300	Hard Pelican Transport Case for DXS-100 Daxus

ITCU-16 SPECIFICATIONS

GENERAL	
Channels Per Module	16
Connector	Type U miniature thermocouple
Rated Isolation	300 VRMS or DC, Cat II group to chassis and group to group.
Isolation voltage	3500 VDC group to chassis and group to group.
Update rates	1.0 Hz (Slow), 10 Hz (Medium), 50 Hz (Fast) (approx)
Absolute Max Input	+/- 10V (60 seconds - between any input terminal of a group of 4 channels)
A/D	Muxed 24 bit Sigma Delta (one per group of 4 channels)
Anti-Aliasing Filter	Inherent
50 Hz / 60 Hz Notch Filter	Yes (1.0 Hz rate only)
Resolution	0.01 °C
Open thermocouple detection	Yes
Thermocouple types	J,K,E,T ,N,B,R,S,C
IMR	> 110 dB @ DC
Linearization	NIST ITS-90
Frequency Counter Capability	No
Cold Start Drift	+/- 0.0025% of attenuator
Cold Junction Compensation	Yes. Selectable internal or external
Compensation Error	Included in above accuracy specification
MEASUREMENT RANGES	
Type J	-210 to 1200 °C
Type K	-200 to 1372 °C
Type E	-200 to 1000 °C
Type T	-200 to 400 °C
Type N	-200 to 1300 °C
Type B	600 to 1820 °C (250 to 1820 on menu)
Type R	0 to 1767 °C (-20 to 1768 on menu)
Type S	0 to 1767 °C (-20 to 1768 on menu)
Type C	0 to 2316°C
Voltage	100 mv
ACCURACY (@25 °C) (1.0 Hz Update Rate)	
Type J (<0)	+/- 2.0 °C
Type J (0 to 1200)	+/- 0.9°C
Type K (<0)	+/- 2.5 °C
Type K (0 to 1372)	+/- 0.9 °C
Type E (<-100)	+/- 2.5 °C
Type E (-100 to 1000)	+/- 1.0 °C
Type T (<-100)	+/- 2.5 °C
Type T (-100 to 400)	+/- 1.0 °C
Type N (<-50)	+/- 2.0 °C
Type N (-50 to 300)	+/- 0.9 °C
Type B	+/- 1.0 °C
Type R	+/- 2.0 °C
Type S	+/- 2.0 °C
Type C (W5ReM26Re)	+/- 2.5 °C
Voltage	+/-0.01% of attenuator
INTRINSIC NOISE	
J,K,E,T,N,C (pk-pk)	< 0.2 °C (1.0 Hz Update Rate)
B (pk-pk)	< 0.1 °C (1.0 Hz Update Rate)
R,S (pk-pk)	< 0.23 °C (1.0 Hz Update Rate)
Volatage	< 0.0009 % of attenuator (1.0 Hz Update Rate)