

Barometric Pressure, Temperature + Humidity

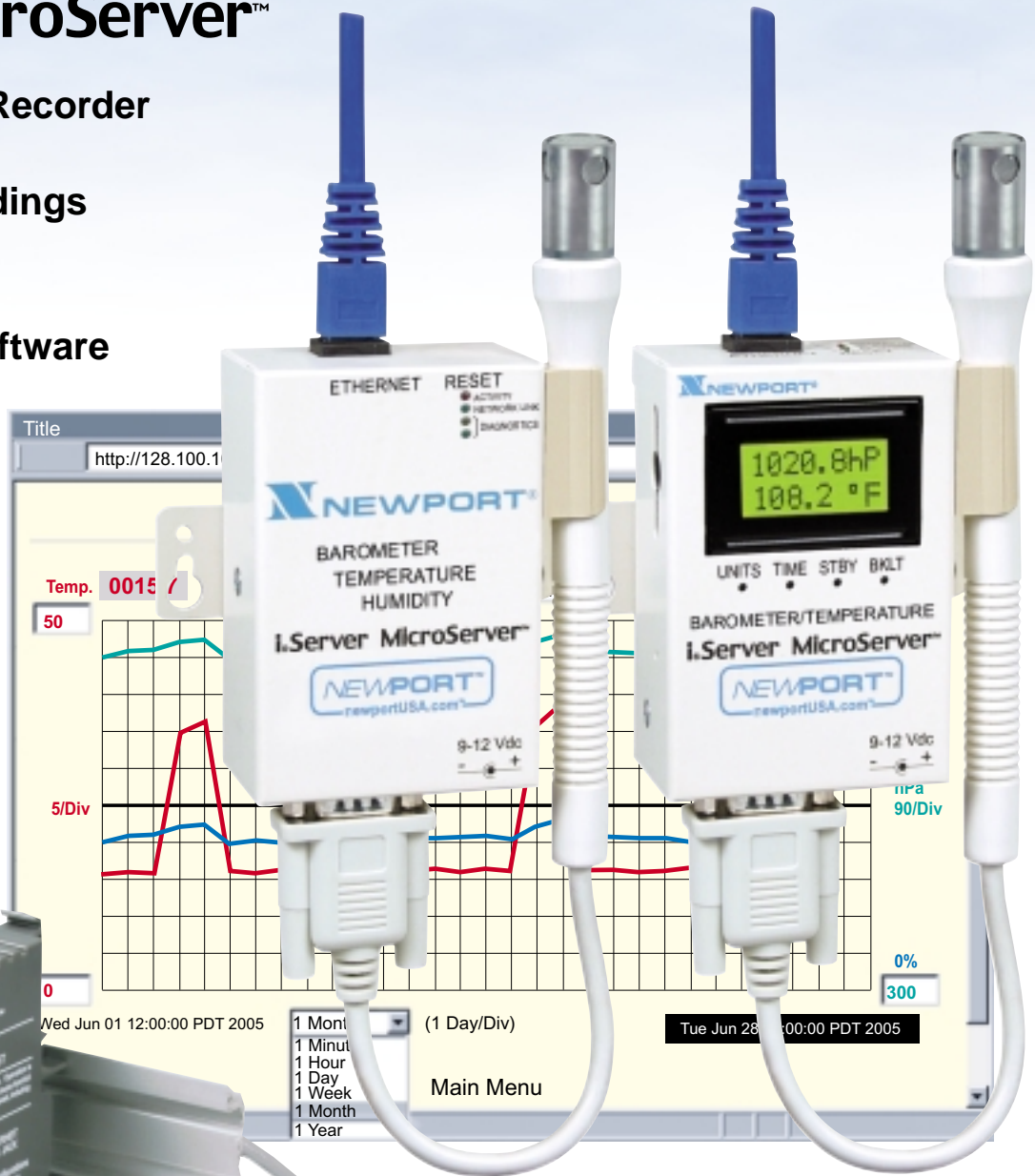
iServer MicroServer™

- ✓ Virtual Chart Recorder
- ✓ Web Server
- ✓ Accurate Readings
- ✓ Email Alarms
- ✓ Data Logging
- ✓ No Special Software Required

iBTHX



FCC-B



View Barometric Pressure, Temperature + Humidity with a Web Browser

The NEWPORT® iBTHX transmitter let's you monitor and record Barometric Pressure, Temperature, Relative Humidity and Dew Point over an Ethernet network or the Internet with no special software except a Web Browser.

The NEWPORT iBTHX serves Active Web Pages to display real time readings, display charts of barometric pressure, temperature and humidity, or log data in standard data formats for use in a spreadsheet or data acquisition program such as Excel or Visual Basic.

The virtual chart viewed on the web page is a JAVA™ Applet that records a chart over the LAN or Internet in real time. With the NEWPORT iBTHX, there is no need to invest time and money learning a proprietary software program to log or chart the data.

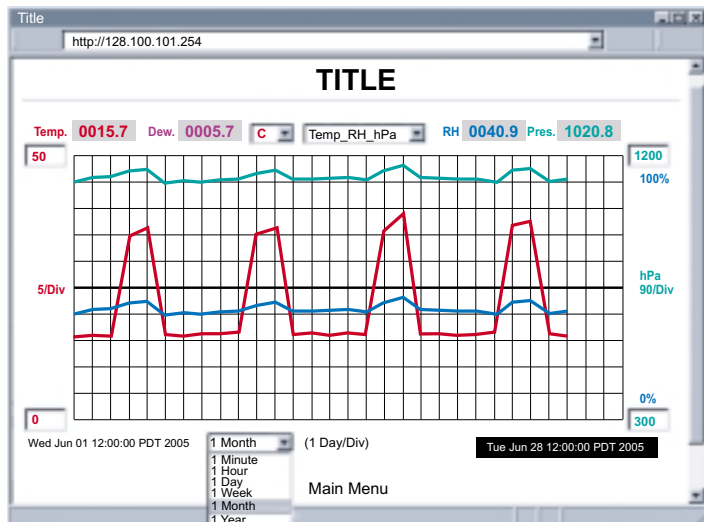
\$295
iBTX-D



Adjustable Charts

Chart scales are fully adjustable on the fly. For example, the chart can display one minute, one hour, one day, one week, one month or one year.

Temperature and humidity can be charted across the full span (0-70°C, and 0-100% RH) or within any narrow range (such as 20-30°C). Barometric Pressure can be displayed in hectopascals (hPa), millimeters of Mercury (mmHg), or inches of Mercury (inHg).



Adjustable Chart Web Page

Display and Chart Measurements

The iBTHX transmitters come complete with a barometric pressure, temperature and humidity probe for measurement of a single location.

NEWPORT offers a choice of industrial probes in 5" lengths, and a wand style for ambient indoor applications.

Award-winning Technology

The NEWPORT iBTHX is simple to install and use, and features NEWPORT's award-winning iServer technology that requires no special software except a Web Browser.

The iBTHX connects to an Ethernet Network with a standard RJ45 connector and sends data in standard TCP/IP packets. It is easily configured with a simple menu using a Web Browser and can be password protected.

From within an Ethernet LAN or over the Internet, the user simply types its IP address or an easy to remember name such as "Cleanroom 5" or "Midwest Server Room" in any Web Browser, and the iBTHX serves a Web Page with the current readings.

Typical Applications

The NEWPORT iBTHX is great for monitoring temperature + humidity in applications such as: clean rooms, computer rooms, HVAC systems, pharmaceutical and food processing and storage, hospitals, laboratories, semiconductor fabs, electronic assembly, warehousing,

museums, manufacturing, greenhouses, farm animal shelters, and many more.

NIST Traceable Calibration Certificate available. In compliance with ISO9001:2000, ISO10012-1.1992(E), ANSI/NCSL Z540-1.1994 and MIL-STD-45662A.

NEW iBTX-M with Flash Memory and LCD Display

The NEWPORT model iBTX-M with LCD display, adds several valuable features in addition to the backlit local display of temperature and barometric pressure.

The "Memory" model comes complete with a removable 2 Megabyte Flash Memory card that can store one full year of readings taken at one minute intervals (or two months of readings taken at ten second intervals).

Up to four years of temperature + pressure readings can be stored on the 8 Megabyte card.

With data being recorded in the built-in nonvolatile flash memory, a failure on the Ethernet network will not interrupt the data record.

Alarm Relays

The NEWPORT iBTX-M features two 1.5 Amp relays. With the easy Web-based setup page, the two relays can be programmed for any combination of temperature or pressure, and high or low set points. The relays can also be programmed to remain latched and require a manual reset if a limit is exceeded.

Email Alarms

In addition to the mechanical alarm relays, all NEWPORT iBTHX models that are on a LAN that is connected to the Internet can trigger an alarm that can be sent by email to a user or a distribution list anywhere in the world, including an Internet enabled pager or cell phone.



View Barometric Pressure and Temperature over the Ethernet or Internet

Battery Backup

The iBTX-M comes with a universal ac adapter. A standard 9 Volt Alkaline battery (also included) allows the device to log data for up to 10 days without external ac power. In locations without power or network accessibility, the iBTX-M continues logging data to its flash memory. The stored data can later be downloaded over the Ethernet.

NEWPORT iServer products are designed and manufactured in Santa Ana, California.

Temperature + Humidity



Sensor Specifications

Barometric Pressure (B)

Accuracy/Range:
±2.0 mbar / 0-1100 mbar (0-110 KPa)
Resolution: 0.1 mbar

Relative Humidity (H)

Accuracy/Range: ±2% for 10 to 90%
±3% for 0 to 10% and 90 to 100%

Hysteresis: ±1% RH

Non-linearity: ±3%

Response Time: 4 seconds
(63% slowly moving air)

Repeatability: ±0.1%

Resolution: 0.03%, 12 bit

Temperature (T)

Range*: 0°C to 70°C (32°F to 158°F)

Accuracy*:

± 0.8°C @ 20°C (± 1.5°F @ 68°F)

± 2°C for -40 to 125°C

(± 3.6°F for -40 to 257°F)

*Note: extended temperature range is for Industrial Probe only, the iServer's operating temperature is 0 to 70°C.

Response Time: 5 seconds

(63% slowly moving air)

Repeatability: ±0.1°C

Resolution: 0.01°C, 14bit

Probe Physical Dimensions

Wand Probe:

159 mm lg x 19 mm dia (6.25" x 0.75")

Cable with DB9 connector:

152 mm long (6")

Cable operating temp:

0 to 80°C (32 to 176°F)

Industrial Probe:

137mm lg x 16mm dia (5" x 0.63")

Cable with DB9 or stripped leads:

6.1m long (20')

Cable operating temp:

0 to 105°C (32 to 221°F)

iServer Specifications

Interfaces

Ethernet: 10Base-T (RJ45)

Supported Protocols

TCP/IP, UDP/IP, ARP, ICMP, DHCP, DNS, HTTP, and Telnet

Indicators (LED's)

Network Activity, Network Link, Transmit and Receive/Diagnostics

LCD Display

16 Digits 6mm (0.23") for iBTX-M

Memory

512 Kbytes Flash, 16 Kbytes SRAM

Memory Data Flash Card

2 M bytes: 2 months of data storage at 10 second logging intervals or 1 year at 1 minute intervals for iBTX-M

Relay Outputs

Two Relays 1.5A @ 30 Vdc for iBTX-M

Management

Device configuration and monitoring through embedded WEB server.

Software

Firmware upgradeable. Including an Excel program for automatic data logging within definable time intervals, compatible with all Windows operating systems.

Embedded WEB Server

Serves WEB pages containing real-time data and live updated charts within definable time intervals.

Power

Input: 9-12 Vdc iBTHX-W, iBTX-M
10-32 Vdc iBTHX-D

Safety Qualified ac power adapter:
Nominal Output: 9 Vdc @ 0.5A;

Input: 100 - 240Vac, 50/60 Hz included for iBTHX-W, iBTX-M

Switching Power Supply sold separately for iBTHX-D

Consumption: 2.5 W max.

Battery: 9Vdc, Alkaline iBTX-M

Environmental

Operating Temperature:

0 to 70°C (32 to 158°F)

Storage Temperature:

-40 to 125°C (-40 to 257°F)

Packaging

Material: Metal case with flange mount for iBTHX-W, iBTX-M. Polycarbonate case with DIN Rail mount for iBTHX-D

Dimensions: Refer to Mechanical Specifications page.

Time	Temperature	Humidity	Pressure	Error
11:00:00	11.0000	66.0000	1007.8000	0
11:00:05	11.0000	66.0000	1007.8000	0
11:00:10	11.0000	66.0000	1007.8000	0
11:00:15	11.0000	66.0000	1007.8000	0
11:00:20	11.0000	66.0000	1007.8000	0
11:00:25	11.0000	66.0000	1007.8000	0
11:00:30	11.0000	66.0000	1007.8000	0
11:00:35	11.0000	66.0000	1007.8000	0
11:00:40	11.0000	66.0000	1007.8000	0
11:00:45	11.0000	66.0000	1007.8000	0
11:00:50	11.0000	66.0000	1007.8000	0
11:00:55	11.0000	66.0000	1007.8000	0
11:01:00	11.0000	66.0000	1007.8000	0
11:01:05	11.0000	66.0000	1007.8000	0
11:01:10	11.0000	66.0000	1007.8000	0
11:01:15	11.0000	66.0000	1007.8000	0
11:01:20	11.0000	66.0000	1007.8000	0
11:01:25	11.0000	66.0000	1007.8000	0
11:01:30	11.0000	66.0000	1007.8000	0
11:01:35	11.0000	66.0000	1007.8000	0
11:01:40	11.0000	66.0000	1007.8000	0
11:01:45	11.0000	66.0000	1007.8000	0
11:01:50	11.0000	66.0000	1007.8000	0
11:01:55	11.0000	66.0000	1007.8000	0
11:02:00	11.0000	66.0000	1007.8000	0

Datalogging Spreadsheet

Temperature	90.5 °F
Pressure	1007.8 mbar
Humidity	36.6 %
Dewpoint	53.6 °F

Reading Sensor Web Page

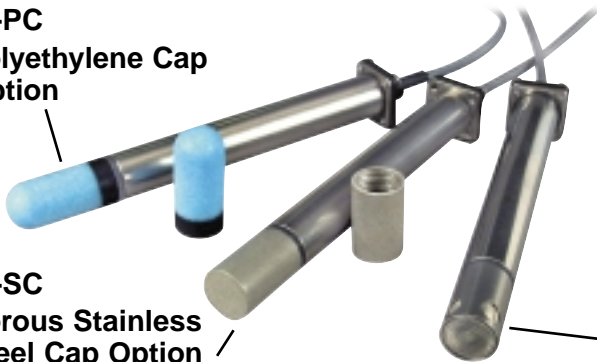
No.	Device Name	Reading	Display Units	Display Format	Remote Format	Remote End Char (HEX)	Offset
1	Temperature	SRTF	°F	decimal	T00.0F	0D	0000.0
2	Pressure	SRHb	mbar	decimal	P000.0B	0D	0000.0
3	Humidity	SRH2	%	decimal	H00.0%	0D	0000.0
4	Dewpoint	SRDF2	°F	decimal	D00.0F	0D	0000.0

iBTHX-W and iBTHX-D Device Configuration Web Page

iBTX-M Device Configuration Web Page

iP-PC

Polyethylene Cap Option



iP-SC

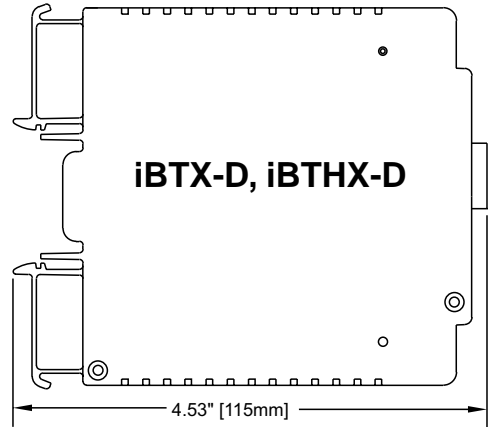
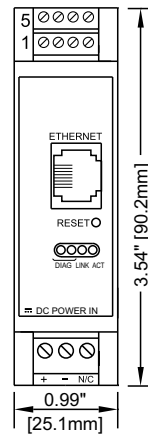
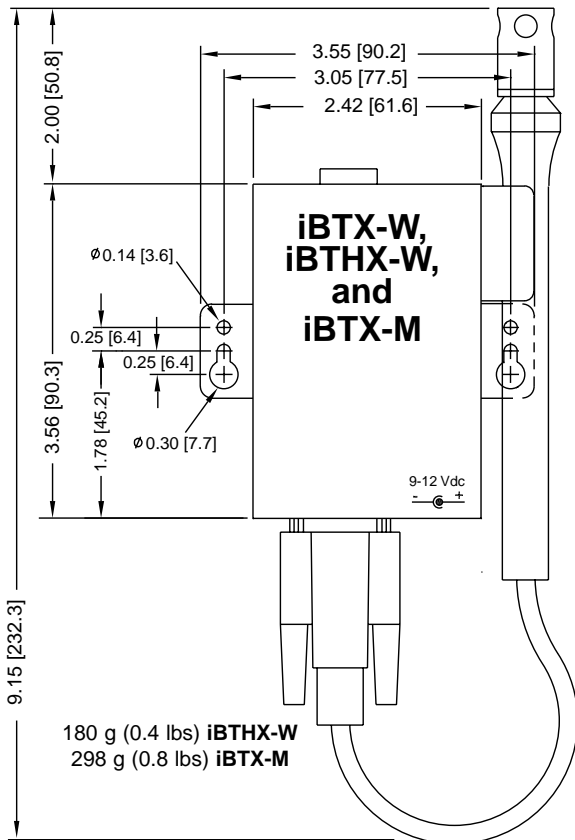
Porous Stainless Steel Cap Option

Optional Caps available for both Wand and Industrial Probes

iBTP-5, iBTHP-5 Standard Industrial Probes with Stainless Steel Mesh Cap

Mechanical Specifications

Dimensions shown in inches (mm)



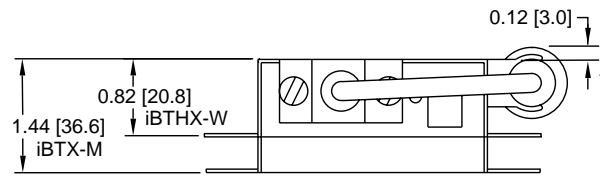
113 g (0.25 lbs) iBTHX-D

iDRN-PS-1000

- 24Vdc Supply
- Switching Power Supply powers up to 7 units

Mounts to 35mm DIN rails

Model No.	Description	Price
iBTX-D	iServer Industrial MicroServer™ for Barometric Pressure, and Temp. Industrial Probe 5" (137mm), Cable 20ft (6.1m), Stripped Wire Leads	295
iBTHX-D	iServer Industrial MicroServer™ for Bar. Pressure, Temp, Humidity, and Dew Point. Industrial Probe 5" (137mm), Cable 20ft (6.1m), Stripped Wire Leads	395
Accessories		
iBTP-5	Industrial Probe 5" (137 mm), Cable 20 ft (6.1 m) w/ Stripped Wire Leads. Barometric Pressure/Temp	125
iBTHP-5	Industrial Probe 5" (137 mm), Cable 20 ft (6.1 m) w/ Stripped Wire Leads. Bar. Pressure/Temp/Humidity	195
iDRN-PS-1000	Power Supply (switching), 95 to 240 Vac input, 24 Vdc output @ 850 mA (powers up to 7 units)	150



Model No.	Description	Price
iBTX-W	iServer MicroServer™ for Barometric Pressure and Temperature, with universal (100-240Vac) power adapter	295
iBTHX-W	iServer MicroServer™ for Barometric Pressure, Temperature, Humidity and Dew Point, with ac power adapter	395
iBTX-M	iServer MicroServer™ for Barometric Pressure and Temperature, LCD Display, 2M bytes Flash Memory Card, 2 Relay Alarm, and Battery Back-up, with universal (100-240Vac) power adapter	395
*	Standard Wand Probe, Cable 6" (152 mm) with DB9 Connector (no entry required)	N/C
-5	Industrial 5" Probe, Cable 20 ft (6.1 m) with DB9 Connector. Substitution for Wand Probe	25
Accessories		
iBTP-W-6	Wand Probe, Cable 6" (152 mm) with DB9 Connector. Barometric Pressure/Temperature	100
iBTHP-W-6	Wand Probe, Cable 6" (152 mm) with DB9 Connector. Barometric Pressure/Temperature/Humidity	170
iBTP-5-DB9	Industrial 5" (137mm) Probe, Cable 20 ft (6.1 m) with DB9 Connector. Barometric Pressure/Temperature	125
iBTHP-5-DB9	Industrial 5" (137mm) Probe, Cable 20 ft (6.1 m) with DB9 Connector. Barometric Pressure/Temp/Humidity	195
DB9-CA-3-2	Extension Cable, 3 ft (0.9m) with DB9 Connector	15
iTH-MC2	Memory Data Flash Card, 2M byte / 1 Year @ 1 Minute Intervals (iBTX-M)	10
iTH-MC4	Memory Data Flash Card, 4M byte / 2 Years @ 1 Minute Intervals (iBTX-M)	20
iTH-MC8	Memory Data Flash Card, 8M byte / 4 Years @ 1 Minute Intervals (iBTX-M)	30

Common Accessories		Price
CAL-3-HU	NIST Traceable Calibration Certificate. 3 Humidity Points: 25%, 50%, 75%, Temp 25°C (for new units)	125
CAL-3-HU-P-T	NIST Traceable Calibration Certificate. 3 Humidity, Barometric Pressure & Temp Points (for new units)	250
CAL-3-P	NIST Traceable Calibration Certificate. 3 Barometric Pressure Points, Temp 25°C (for new units)	125
CT485B-CAL-KIT	Calibration Kit, 33% and 75% RH Standards	75
iP-PC	Polyethylene Probe Cap, for wet environments	N/C
iP-SC	Porous Stainless Steel Probe Cap, 5um porosity, for dusty and pressurized (< 35 psi) environments	25