

Datasheet

IoT Xtreme

Datalogging. Simplicity. Connectivity.

XTREME SOLUTIONS



IoT Xtreme

Datalogging. Simplicity. Connectivity.



Status Indicator



Receptacles



On/Off Switch



USB Power Port

The IoT Xtreme Datalogger is a product designed by engineers for engineers, but with the simplicity of operation that delivers results quickly.

Status Indicator

Glows ORANGE on boot. Flashes GREEN every 60 s to confirm batteries have sufficient capacity to power the datalogger. Turns RED to signal that the batteries need changing.

Receptacles

Six (6) Fischer DBP 102 series 7-pole receptacles rated to IP50 for indoor and unexposed industrial environments.

Accepts up to six (6) Fischer S 102 series 7-pin standard A polarity connectors.

Contacts guaranteed up to 10,000 mating cycles.

Receptacles are wired to accept signals from up to six (6) Micron Dual-Bond Stress and Temperature (DBST) sensors.

On/Off Switch

Toggle switch with mechanical blocking feature to prevent accidental power On or Off.

USB/Power Port

Wired connectivity for downloading data and/or long-term power to datalogger.

When two batteries (7.2 V) are installed and USB cable (5 V) is connected, power will be drawn from the source that has the higher voltage.



IoT Xtreme Datalogger

- 6 Receptacle ports
- Easily visible status indicator
- USB/Power port
- Toggle On/Off switch with safety lock
- Built-in mounting holes
- Built for Dual Bond Stress and Temperature (DBST) Sensors

Contact:

4584 Runway Street • Simi Valley, CA 93063
(805) 527-3640 • info@piezo-metrics.com

World: www.piezo-metrics.com • Europe: www.hapticasensing.com

©2020 Piezo-Metrics, All Rights Reserved.



Quick Start Guide

Datalogging. Simplicity. Connectivity.

The IoT Xtreme is designed to be easily set up and used.

Steps to Set Up

1. Connect sensor connector to datalogger receptacle.
2. Connect USB cable to user computer.
3. Power on datalogger.
4. Open WinClient app.
5. Use menu items in the app to set-up and start logging.

Steps to Download Data

1. Stop datalogging.
2. Download data to user computer.
3. View data and analyze in a spreadsheet program.

Software

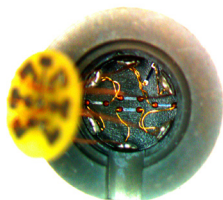
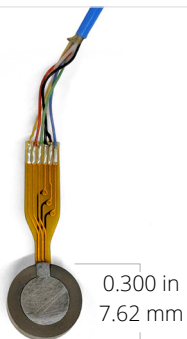
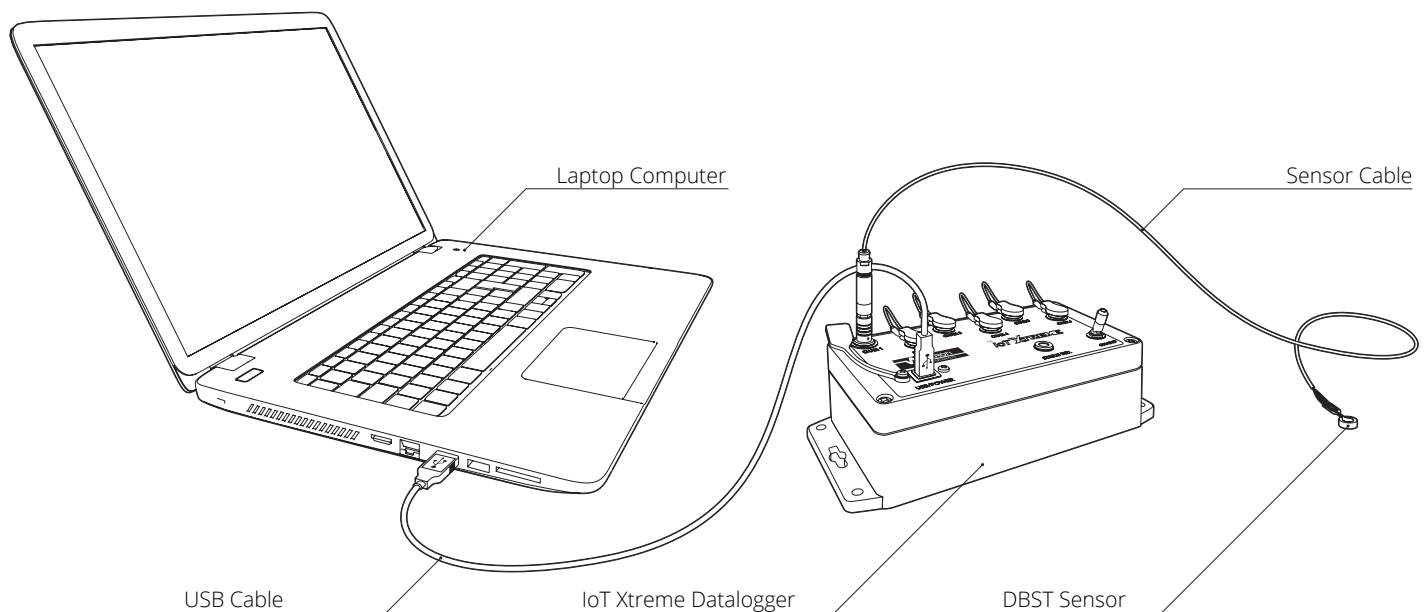
The IoT Xtreme datalogger and its software are designed to simplify data acquisition for the Dual Bond Stress and Temperature (DBST) sensor.

Channels

Each of the six channels can be individually selected and verified through the datalogger application called WinClient. The data acquisition rate is user-selectable.

Battery Power

For long-term acquisition, the datalogger can acquire data for up to one year on battery power alone or indefinitely when connected to a computer via the USB cable.



Dual-Bond Stress and Temperature (DBST) Sensor

The Dual Bond Stress and Temperature (DBST) Sensor is a miniature dual measurement sensor that uses four semiconductor strain gages to measure stress and a one semiconductor sensor to measure temperature. The small size of the sensor minimizes stress field perturbations in the surrounding material. The high spring constant of the diaphragm allows stress change measurements in viscoelastic materials. The DBST sensor can be purchased with a full-scale range of 100 psi (690 kPa) or 200 psi (1380 kPa). Higher full-scale ranges are available upon request.

Contact:

4584 Runway Street • Simi Valley, CA 93063
(805) 527-3640 • info@piezo-metrics.com

World: www.piezo-metrics.com • Europe: www.hapticasensing.com

©2020 Piezo-Metrics, All Rights Reserved.



IoT Xtreme Technical Data

Parameter	Value
DBST sensor range	+/- 28 mV
Bore diameter sensor range	-5 mV to +500 mV
Channel accuracy	1% of full-scale range
Min/max acquisition period/sample	10 ms/sample to 3 weeks/sample
Memory capacity	130,000 data records per channel
Battery quantity x type	2 x SAFT Li-SOCl ₂ 3.6V 13 Wh Model LS14500
Microprocessor	STM32L433VCT6 32-bit with 256kB flash memory
Fischer receptacle	DBP 102 A056-139, 7-pole female, Part 100687
Fischer connector	S 102 A056-132+, 7-pin male, Part 100499
Operating temperature range	+40F to +100F (+4C to +38C)
Storage temperature range	-10F to +120F (-12C to +49C)

CHAN 4
IoT XTREME
CHAN 5

IoT Xtreme

XTREME SOLUTIONS

Contact:

4584 Runway Street • Simi Valley, CA 93063
(805) 527-3640 • info@piezo-metrics.com

World: www.piezo-metrics.com • Europe: www.hapticasensing.com

©2020 Piezo-Metrics, All Rights Reserved.

