**The CirrusSense™ TDWLB-DL Series**

**Wireless Bluetooth Pressure Transducer With Data Logging Capability**

**DESCRIPTION**

Another Industry First! The first Bluetooth® certified wireless pressure transducer with long battery life and patent pending design makes the Transducers Direct CirrusSense™ TDWLB a perfect fit for many applications for Industrial and Home Automation. The TDWLB-DL includes data logging capability to save pressure and temperature data that can be emailed and opened in an excel spreadsheet. Download the free app, install the transducer and wirelessly connect - no confusing wiring to figure out. From HVAC in marine, campers, motorhomes, residential and commercial applications to water, hydraulic, irrigation, pools, medical and sprinkler systems or anywhere you need to monitor pressure without the need of wires.

Because it is built on Transducers Direct TD1000 proprietary technology, the TDWLB ensures high quality and high accuracy with Transducers Direct's quick deliveries, and low costs.

**FEATURES**

- Connects to smart phones and tablets with BLE (Bluetooth® Low Energy)
- Certified Bluetooth® Wireless technology
- Pressure ranges from Vacuum to 10,000 psi
- Long battery life (proprietary technology)
- 1% Standard accuracy with optional 0.25% Ultra high accuracy
- Stainless Steel and high impact polycarbonate construction
- Alarm set points
- Secure field programmable naming
- Patent Pending Design
- Number of individual logs: from 15,872 to 32,768
- Email logged files from the app

**TDWLB APP**

Free download at the Apple iTunes App Store and Google Play Store

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use. While we provide application assistance personally, through our literature and the Transducers Direct web site, it is up to the customer to determine the suitability of the product in the application.
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.
—Increase the separation between the equipment and receiver.
—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
—Consult the dealer or an experienced radio/TV technician for help.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with Part 15 of the FCC Rules. Operation is subject to the two following conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by Transducers Direct could void the user's authority to operate the equipment.

FCC ID: 2ACGE-TDWLBG2

This device complies with Industry Canada licence-exempt RSS standard(s) / CNR of Industry Canada for licence exempt radio devices. Exploitation is entitled to the following two conditions: (1) the device does not produce interference, and (2) the device must accept any radio interference suffered, even if the interference is likely to jeopardize the operation.

IC: 12056A-TDWLBG2
**DATA LOGGING**

**Measurement Intervals**
From 50ms up to 1hr
Fill Until Full: 50ms, 500ms, 1 sec, 5 sec, 10 sec, 30 sec, 1 min, 5 min, 10 min, 20 min, 30 min, 1 hr, 1 day
FIFO: 500ms, 1 sec, 5 sec, 10 sec, 30 sec, 1 min, 5 min, 10 min, 20 min, 30 min, 1 hr, 1 day

**Recording Temperature**
External temperature probe required to record temperature data

**Storage Modes**
- Fill Until Full: When memory is full, recording will stop
- FIFO (First in/First out): When memory is full, recording will start over from the beginning replacing the first recordings with the latest moving forward

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<table>
<thead>
<tr>
<th>Storage Mode</th>
<th>Data Recorded</th>
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<tbody>
<tr>
<td>Fill Until Full</td>
<td>Pressure and Temperature: 16,384, Pressure or Temperature: 32,768</td>
</tr>
<tr>
<td>FIFO</td>
<td>Pressure and Temperature: 15,872, Pressure or Temperature: 31,744</td>
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</tbody>
</table>

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**Max Logs per Storage Mode**
SPECIFICATIONS

Performance
- Pressure @ 25°C (77 °F)
- 0.25% or 0.2 psi, whichever is greater, 1% BFSL (includes non-linearity, hysteresis, non-repeatability)
- Temperature Accuracy ± 1°C
- Overrange Protection 2x Rated Pressure
- Pressure Range see ordering chart - up to 10,000 psi (690 bar)
- Burst Pressure 5x or 20,000 psi, whichever is less
- Pressure Cycles >100 million
- Update Time Bluetooth® wireless technology (1sec)

Environmental Data
- Compensated Temperatures -10° to 85° C (14 to 185° F)
- Operating Temperatures -40° to 85° C (-40° to 185° F) without battery
- Storage -40° to 125° C (-40° to 257° F) without battery
- TEB 3% BFSL (includes: Non-linearity, Hysteresis and Non-repeatability)
- Long Term Drift 0.2% FS/year (non-cumulative)
- Shock 50g, 11 ms, 1/2 sine
- Vibration 10g, peak, 20 to 2400 Hz
- EMI/RFI Protection Yes
- Ingress Rating IP-67
- Approvals CE

Mechanical Configuration
- Pressure Connections 1/4” NPT Male, 7/16-20 UNF Male, G1/4 Male, 7/16-20 UNF Female w/ 45° flare & valve depressor (Schrader)
- Wetted Material 17-4PH stainless steel (for other materials consult factory)
- Case (housing) 304 stainless steel and high-impact polycarbonate

Electrical Data
- Power Supply 3.6V Proprietary replaceable battery, battery life: 24 months, typical. Battery life is affected by high and low temperatures.
- Battery Removal If battery pack is removed, you must wait 90 seconds to reinstall or unit may lock up.
- Connection Distance 250 feet (line of sight)

Compatible Devices
- Software: Android - Version 4.3 or later
- iOS - Current version and previous one
- Hardware: Android - Device supports Bluetooth Smart (Version 4.0 and later)
- iPad Gen 3 (released Mar 16, 2012)
- iPad Gen 4 (released Nov 2, 2012)
- iPad Mini Gen 1 (released Nov 2, 2012)
- iPad Mini Gen 2 (released Nov 12, 2013)
- iPad Air (released Nov 1, 2013)
- iPad Mini 2, 5S (released Sept 20, 2013)
- iPhone 6, 6 Plus (released September 19, 2014)

ORDERING

<table>
<thead>
<tr>
<th>Series</th>
<th>Pressure Range</th>
<th>Pressure Connection</th>
<th>Accuracy</th>
<th>M5 / Temperature Probe</th>
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</thead>
<tbody>
<tr>
<td>TDWLBDL</td>
<td>0050</td>
<td>03 = 1/4” NPT Male</td>
<td>4 = 1.0%</td>
<td>(BLANK) = No M5 connector (not temp probe capable)</td>
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<tr>
<td></td>
<td>0100</td>
<td>09 = 7/16-20 UNF Male</td>
<td>2 = 0.25%</td>
<td>T24 = 24” cable with M5 mating connector and external temperature probe</td>
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<td></td>
<td>0250</td>
<td>13 = G1/4 Male</td>
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<td>M5 = M5 connector alone (temp probe capable)</td>
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<td>0500</td>
<td>42 = 7/16-20 UNF Female w/ 45° flare &amp; valve</td>
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**= Consult factory for further OEM options.
Pressure ranges listed above are quick ship versions.

All straight-thread o-rings are Viton. It is customer’s responsibility to determine compatibility.

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