

The CirrusSense™ TDWLB-DL Series Wireless Bluetooth Pressure Transducer With Data Logging Capability



SERIES: TDWLB-DL



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 spread sheet. Download the free app, install the transducer and wirelessly connect - no confusing wiring to figure out. From HVAC in

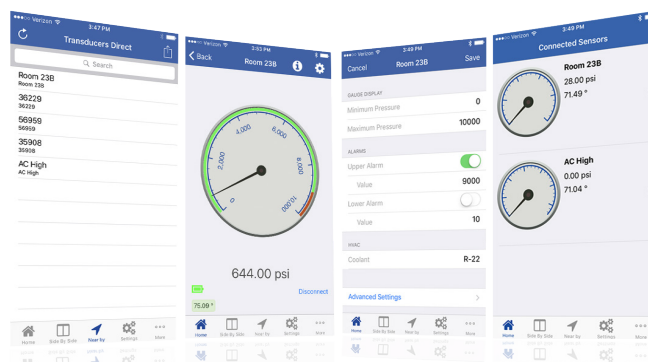
marine, campers, motorhomes, residential and commercial applications to water, hydraulic, irrigation, pools, medical and sprinkler systems or anywhere you need to monitor pressure without the need of wires.

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

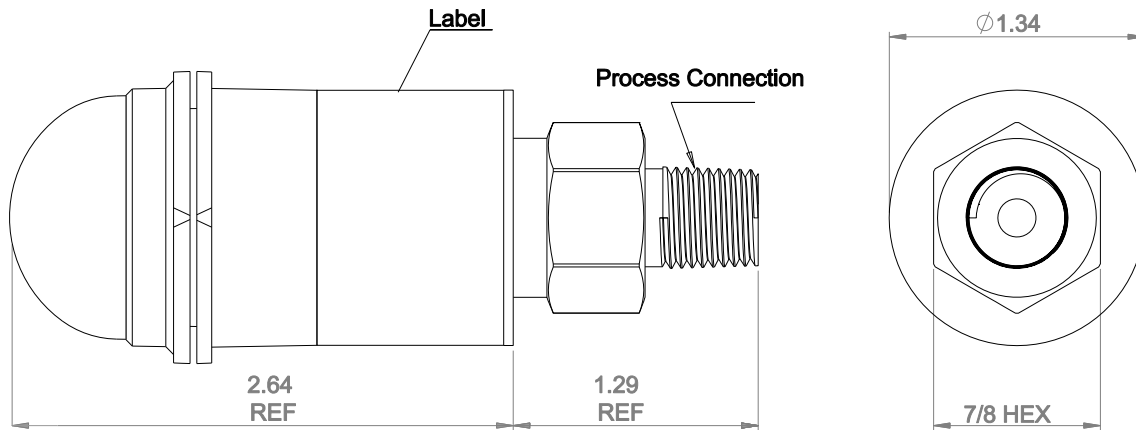
- Connects to smart phones and tablets with BLE (*Bluetooth*® Low Energy)
- Certified *Bluetooth*® Wireless technology
- Pressure ranges from Vacuum to 10,000 psi
- Long battery life (proprietary technology)
- 1% Standard accuracy
with optional 0.25% Ultra high accuracy
- Stainless Steel and high impact 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 Play

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.

DRAWING


All TDWLB Transducers Contain a Lithium Battery That Must Be Disposed of Properly

REGULATORY COMPLIANCE

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

Re-

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

Max Logs per Storage Mode		
Storage Mode	Data Recorded	
	Pressure and Temperature	Pressure or Temperature
Fill Until Full	16,384	32,768
FIFO	15,872	31,744



SPECIFICATIONS

Performance

Pressure Accuracy	Performance @ 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

Temperature	
Compensated Temperatures	-10° to 85° C (14 to 185° F)
Operating Temperatures	-40° to 85° C (-40° to 185° F)
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 replacement 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)	iPhone 6 (released Sept 19, 2014)
iPad Gen 4 (released Nov 2, 2012)	iPhone 6S, 6S plus (released Sept 25 2015)
iPad Mini Gen 1 (released Nov 2, 2012)	iPhone 7, 7 plus (released Sept 16, 2016)
iPad Mini Gen 2 (released Nov 12, 2013)	iPhone 8, 8 plus, X
iPad Air (released Nov 1, 2013)	
iPhone 5 (released Sept 21, 2012)	
iPhone 5C, 5S (released Sept 20, 2013)	
iPhone 6, 6 Plus (released September 19, 2014)	

ORDERING

Series	Pressure Range	Pressure Connection	Accuracy	M5 / Temperature Probe
TDWLB-DL	0500 (psi)	03	2	
	0050	03= 1/4" NPT Male	4 = 1.0%	(BLANK) = No M5 conector (not temp probe capable)
	0100	09= 7/16-20 UNF Male	2 = 0.25%	T24 = 24" cable with M5 mating connector and external temperature probe
	0250	13= G1/4 Male		M5 = M5 connector alone (temp probe capable)
	0500	42= 7/16-20 UNF Female		**
	0650	w/ 45° flare & valve		
	1000	depressor (Schrader)		
	3000	**		
	5000			
	010K			

**= 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.