



INNOVATIVE SENSORS  
FOR INDUSTRIAL AND HOME AUTOMATION

PRELIMINARY

## The CirrusSense™ Bluetooth 5.0 Wireless Pressure & Temperature Transducer!



SERIES: TDWLB5

### DESCRIPTION

The Bluetooth® 5 certified long range wireless pressure & temperature transducer allows users to monitor any number of sensors from their device or desktop making it a perfect fit for many applications including Agricultural, Industrial, and Home Automation.

Download the free app, install the transducer and wirelessly connect - no confusing wiring to figure out.

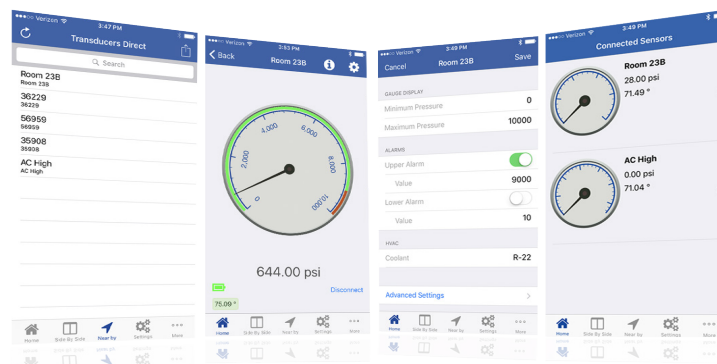
From HVAC in marine, campers, motorhomes, residential and commercial applications to water, hydraulic, irrigation, pools, medical and sprinkler systems or anywhere you need to monitor pressure without the need of wires.

The TDWLB5 ensures high quality and high accuracy with Transducers Direct's quick deliveries and aggressive pricing.

### FEATURES

- Connects to smart phones and tablets with BLE5 (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
- All Stainless Steel Wetted parts and high impact polycarbonate construction.
- Alarm set points
- Secure field programmable naming
- Patent Pending Design
- Schrader, NPT, SAE and G 1/4 pressure connection

### TDWLB APP

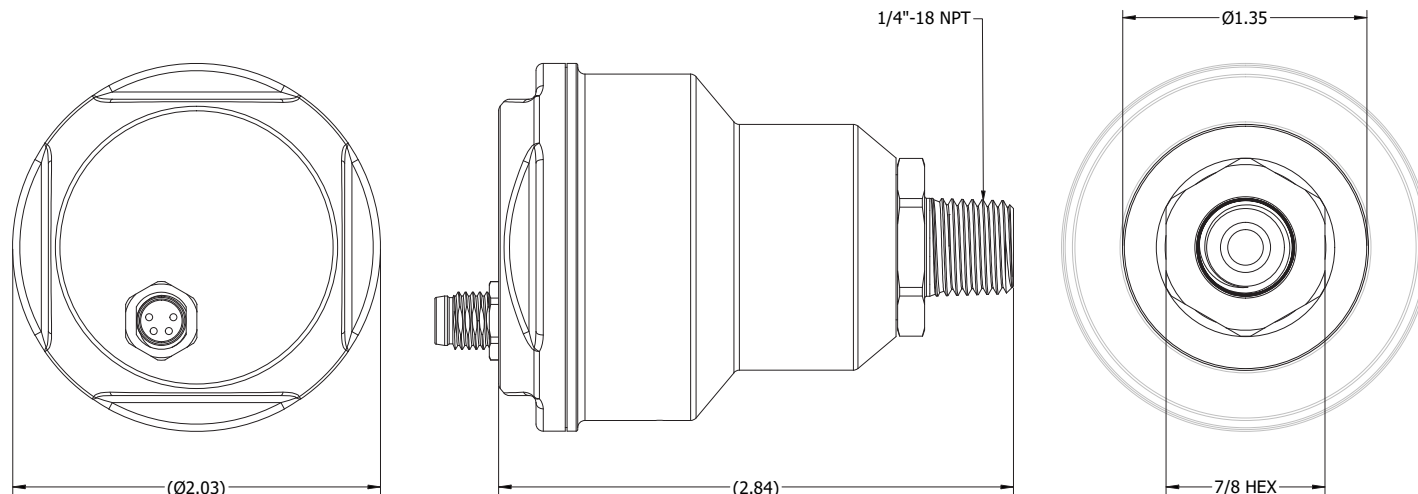


Free download at the Apple iTunes App Store and Google Play Store

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 website, it is up to the customer to determine the suitability of the product in the application.

Rev 1.25

## DRAWING



Dimensions in inches and for reference only.

All TDWLB5 Transducers Contain a Lithium Battery That Must Be Disposed 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-TDWLB5

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.

*Cet appareil est conforme aux normes RSS/CNR d'Industrie Canada pour les appareils radio exempts de licence. Son exploitation est soumise aux deux conditions suivantes : (1) l'appareil ne produit pas d'interférences, et (2) l'appareil doit accepter toute interférence radio subie, même si l'interférence est susceptible de compromettre le fonctionnement.*

IC: 12056A-TDWLB5

**Warning:** Not to be used in applications where device may come within 20cm (7.9in) of a person for long periods of time.

**Avertissement:** Ne pas utiliser dans des applications où l'appareil peut se trouver à moins de 20 cm (7,9 po) d'une personne pendant de longues périodes.

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## SPECIFICATIONS

### Performance

Pressure Accuracy

Temperature Accuracy

Overrange Protection

Pressure Range

Burst Pressure

Pressure Cycles

Update Time

Connection Distance

Performance @ 25°C (77 °F)

0.25% or 0.2 psi, whichever is greater, 1% BFSI (includes non-linearity, hysteresis, non-repeatability)

± 1°C using temp probe

1.5x Rated Pressure

See ordering chart - vacuum to 10,000 psi (690 bar)

3x FS

4 million

Bluetooth® wireless technology: Normal connected mode is 1sec. Watchlist mode is also available with user programmable update rates.

1200 feet (line of sight)

### Environmental Data

Temperature

Compensated Temperatures

Operating Temperatures

Storage

TEB

Long Term Drift

Shock

Vibration

EMI/RFI Protection

Ingress Rating

-10° to 80° C (14 to 176° F)

-40° to 95° C (-40° to 203° F)

-40° to 95° C (-40° to 203° F) without battery

3% FS

0.2% FS/year (non-cumulative)

50g, 11 ms, 1/2 sine

10g, peak, 20 to 2400 Hz

Yes

IP-67

### Mechanical Configuration

Pressure Connections

Wetted Material

Case

1/4" NPT Male, 7/16-20 UNF Male, G1/4 Male, 7/16-20 UNF Female w/ 45° flare & valve depressor (Schrader)

17-4PH stainless steel (for other materials consult factory)

(housing) Grivory and high-impact polycarbonate

### Electrical Data

Power Supply

3.6V Lithium battery, battery life: 48 months, typical. Battery life is affected by high and low temperatures, connection mode, and range mode. Battery Part Number: TDWLB5-BAT. Choose from a list of power supply accessories.

Battery Removal

If battery is removed, you must wait 90 seconds to reinstall.

### Accessories

Power Supply Options:

TDWLB5-BAT: Spare Lithium battery

TDWLB-LCC-PWR-CABLE: DC Power cable, M8 connector with flying leads, 48" length

TDWLB-LCC-PSUP-Ext-Cable: AC Plug-in power supply, M8 connector, 48" cable length

External Temperature Probe:

TDWLB-LCC-M8-TEMP-PROBE-48: Temperature probe, 48" cable length with NTC thermistor

Splitter Cables for Continuous Power  
Option & External Temperature Probe:

TDWLB-LCC-CABLE-SPLITTER: Combination DC power/temperature probe splitter cable, M8 connector, 48" length

### Operating System Requirements

iOS 13.0 or later

Android 4.3 or later



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## ORDERING

Series	Pressure Range	Pressure Connection	Accuracy	M8 / Temperature Probe
TDWLB5	0500 (psi)	03	2	
	0050	03= 1/4" NPT Male	4 = 1.0%	(BLANK) = No M8 connector (not temp probe capable)
	0100	09= 7/16-20 UNF Male	2 = 0.25%	T24 = M8 connector, 48" cable with M8 mating
	0250	13= G1/4 Male		connector and external temperature sensor
	0500	42= 7/16-20 UNF Female		M8 = M8 connector alone (temp probe capable)
	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.

TDWLB5 Wireless Bluetooth pressure transducers are capable of measuring vacuum (accuracy is based on the full-scale pressure range of the sensor).

*All straight-thread o-rings are Buna N 70. It is customer's responsibility to determine compatibility.*

TRANSDUCERS  
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Rev 1.25

PHONE 513-583-9491

WWW.TRANSDUCERSDIRECT.COM

FAX 513-583-9476

**ACCESSORIES**

**POWER SUPPLY OPTIONS:**



**Battery**

Part Number: TDWLB5-BAT



**AC Plug-In Power Supply**

Part Number: TDWLB-LCC-PSUP-EXT-CABLE-USA



**DC Power Cable with Flying Leads, 48" Length**

Part Number: TDWLB-LCC-PWR-CABLE

**EXTERNAL TEMPERATURE PROBE:**



**Temperature Probe - 48 Inch with NTC Thermistor**

Part Number: TDWLB-LCC-M8-TEMP-PROBE-48

**SPLITTER CABLES FOR CONTINUOUS POWER OPTION  
& ETERNAL TEMPERATURE PROBE:**



**Splitter Cable with Power Leads & Temperature Probe**

Part Number: TDWLB-LCC-CABLE-SPLITTER