

# TZ200-LX User Room Sensor

## ONYXX® LX-TZ | PRODUCT DATA SHEET

Designed and assembled in Canada

### Description

- ✓ Room user digital wall sensor complementary to the controllers from the Onyx LX product line
- ✓ Displays user data and information such as time, temperature, and requests for heating and cooling through a backlit LCD display
- ✓ Communicates to the controllers using a proprietary RS-485 protocol. One TZ100-LX or TZ200-LX room sensor per controller can be wired when used with the Onyx LX controllers
- ✓ Has a local BACnet MSTP USB port for network access
- ✓ Requires an Onyx LX USB to RS-485 adapter, with a miniUSB to microUSB adapter to configure devices on the trunk with Onyx LX UI
- ✓ To order use part number as per table below:

**ONYXX® LX**  
by Lynxspring



MODEL NUMBER	BUILT-IN HUMIDITY SENSOR	BUILT-IN PIR MOTION SENSOR	BUILT-IN CO2 NDIR SENSOR
TZ200-LX			
TZ200MH-LX	✓	✓	
TZ200HC-LX	✓		✓
TZ200MHC-LX	✓	✓	✓

### Application

This sensor is designed to facilitate simple user interactions typically used in the HVAC industry for terminal equipment control. It allows powerful yet flexible solutions that can be tailored and sized according to any project needs.

### Technical Specifications

#### POWER SUPPLY

24 Vac/dc ± 15%

#### CURRENT CONSUMPTION

1.0 VA room sensor only

#### MICROPROCESSOR

STM32 (ARM Cortex™ M3)  
32 bits, 64 MHz

#### MEMORY

Flash: 64 KB non-volatile  
RAM: 10 KB

#### EXTERNAL CONNECTIONS

Mini USB Type-A connector allows local access to the MS/TP network.

Requires the USB to RS-485 adapter: USB-MSTP-LX.

#### BACKLIGHT DISPLAY / LCD

Multi-HVAC system symbols, time display, 4 segment main numeric display with one decimal

#### COMMUNICATION PROTOCOLS

Proprietary RS-485 protocol to controller

#### BAUD RATE TO CONTROLLER

9600, 19200, 38400, 76800 default, 115200, 230400 & 460800 Bps

#### ROOM SENSOR ADDRESSING

Via keypad configuration

#### HUMIDITY SENSOR (SENSIRION SHT31)

±2 @ 0-100% rH

#### PIR SENSOR

- Operating Principle: Passive Infrared
- Detection Angle: 100 degrees
- Detection Distance: 4 m (13 ft.) maximum
- Detection Area

#### CO2 SENSOR SENSIRION SCD30

- Operating Principle: Self calibrating, non-dispersive infrared (NDIR)
- Sensor Range: 0-5000 ppm
- Accuracy: ± 30 ppm @ 3% of reading
- Accuracy is valid after a minimum of 3 weeks of continuous operation
- Response Time T63: 2 minutes

#### DIMENSIONS

B 83 mm x A 124 mm x 20 mm  
B 3.25 in. x A 4.88 in. x 0.8 in.

#### MAXIMUM WIRE SIZE

16 AWG

#### STOCKING TEMPERATURE

-30 °C to 50 °C / -22 °F to 122 °F

#### OPERATING CONDITIONS

-25 °C to 45 °C / -13 °F to 113 °F  
10% to 90% rH without condensation

#### WEIGHT

120 g. / 0.25 lb.

#### MOUNTING TYPE

Standard 2 in. x 4 in. electrical junction box

#### WARRANTY

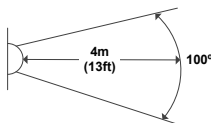
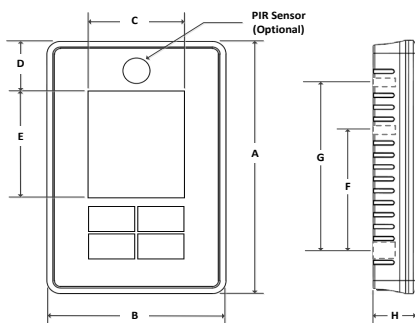
1 year

#### ENCLOSURE

White color, ABS material UL94VO

#### CERTIFICATIONS

UL 916 Energy Management Equipment



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