![OMNTEC - Advanced Tank Monitoring & Leak Detection]

Bright Eye Sensors
BX-Series

Part Numbers:

BX-PDS
BX-PDWS
BX-PDWF
BX-LS
BX-LWF
BX-RES
BX-L-SERIES

Description

OMNTEC sensors are most known for the ease of installation, reliability, cost effectiveness and their ability to be tested remotely. Bright Eye sensors (BX-series) are self diagnostic, and programmed to identify themselves and their location, providing the user with critical information.

Each sensor can recognize its unique serial number, part number and function. It accomplishes this via an internal microprocessor that enables it to distinguish itself from the other sensors on the system. This information is then relayed back to the OEL8000II &OEL8000III controller, eliminating the need to guess where a leak condition is occurring.

Built with four wire buss technology, up to 22 Bright Eye (BX-series) sensors can be networked along a common cable. (A total of 44 Bright Eye sensors can be used with OEL8000III & OEL8000II.) This eliminates the need to run separate lines for every sensors, which results in fewer conduits, and a quicker, less expensive and easier installation. In addition, systems already installed can be easily retrofitted without the need to run new cable.

A major feature of these sensors is that they can be tested from a remote location with the press of a single button, which has been third party certified.

Features

- Self identifying by part number, serial number and function
- Self diagnostic
- Easily installed
- Minimal conduit needed
- Minimal programming required
- Product distinguishing or liquid only detection
- Easily tested without removal
- Corrosion resistant
- Not affected by hydrocarbon vapors or condensation
- Intrinsically safe
- Detects liquids at any angle
- No moving parts
- Modified sensors available
- Cost effective
- Third party certified
- UL listed, CUL listed, CE listed
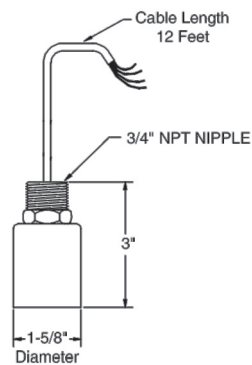
Product-Distinguishing Leak-Detection Sensors

The OMNTEC BX-series product distinguishing sensors employ proven optic technology for leak detection coupled with the principle of conductivity to distinguish between product and water. An internal microprocessor enables the BX-series sensors to be self diagnostic and self identifying. Each sensor can recognize its serial number, part number and function. This allows the controller to differentiate one sensor from another on the network and relay critical information to the user.
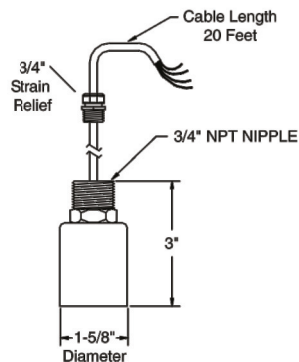
BX-PDS
General Purpose Sensor

The BX-PDS was designed to accommodate a variety of applications. With its convenient size and ability to detect liquids at any angle, the BX-PDS sensor is the ideal sensor for sumps, dispenser pans and containment areas.

Cable Length 12 Feet

3/4" NPT NIPPLE

3"

1-5/8" Diameter

Principles of Operation for BX-PDS and BX-PDWS

Bright Eye Microprocessor
LED
Prism
LED Detector
Conductivity Electrode

Dry condition

Electrical Conductance

Wet Condition

BX-PDWS
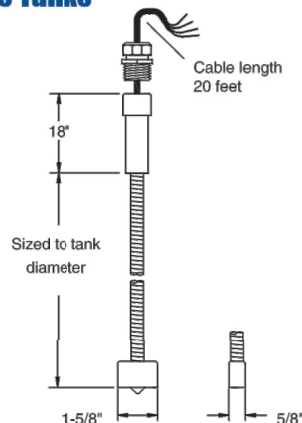### Sensor for Double-Wall Steel Tanks & Xerxes 4'-Diameter Dry Double-Wall Fiberglass Tanks

The BX-PDWS was designed to fit into the annular space of steel double-wall tanks. It can distinguish liquid hydrocarbons from water, and, like all BX-series sensors, can be remotely tested without removal.
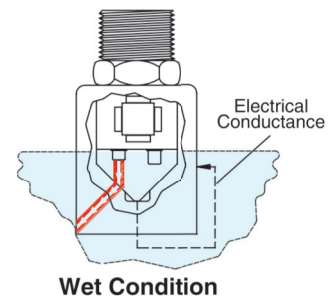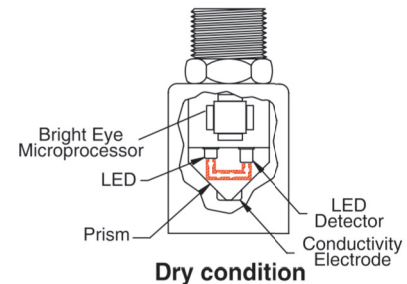
Cable Length 20 Feet

3/4" Strain Relief

3/4" NPT NIPPLE

3"

1-5/8" Diameter

BX-PDWF
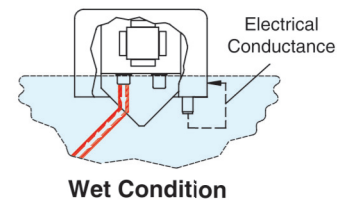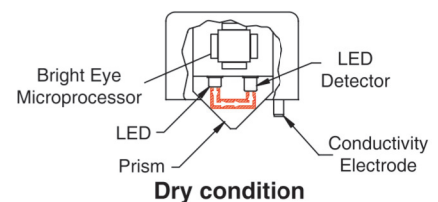### Sensor for Dry Double-Wall Fiberglass Tanks

The BX-PDWF was designed to fit into the annular space of dry double-wall fiberglass tanks. It can distinguish liquid hydrocarbons from water, and, like all BX-series sensors, can be remotely tested without removal. With its slim, compact shape and flexible snake like shaft, the BX-PDWF can easily be installed and removed from grade. (When ordering, the part number will denote tank diameter.)

Cable length 20 feet

18"

Sized to tank diameter

1-5/8"   5/8"

Principles of Operation for BX-PDWF

Bright Eye Microprocessor
LED
Prism
LED Detector
Conductivity Electrode

Dry condition
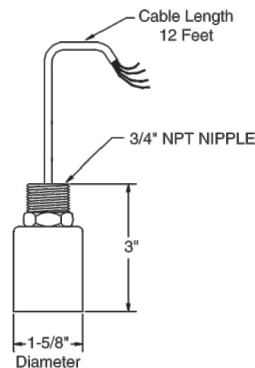
Electrical Conductance

Wet Condition

OMNTEC BX-series non-distinguishing sensors employ proven optic technology for leak detection applications. An internal microprocessor enables these sensors to be self diagnostic and self identifying. Each sensor can recognize its serial number, part number and function. This allows the controller to differentiate one sensor from another on the network and relay critical information to the user.
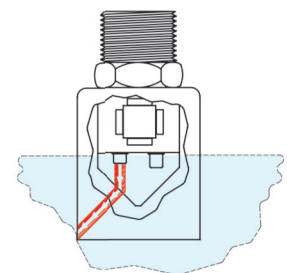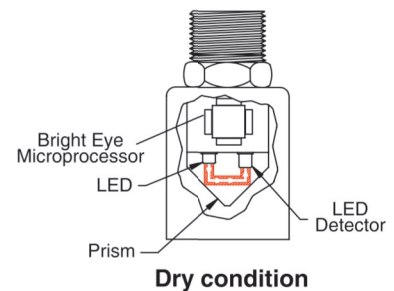
BX-LS
General Purpose Sensor
Sensor for Double-Wall Steel Tanks &
Xerxes 4'-Diameter Dry Double-Wall Fiberglass Tank

The BX-LS non-distinguishing sensor was designed to accommodate a variety of applications. With its convenient size and ability to detect liquids at any angle, the BX-LS sensor is the ideal sensor for sumps, dispenser pans, containment areas and annular spaces of double-wall steel tanks.

Cable Length 12 Feet

3/4" NPT NIPPLE

3"

1-5/8" Diameter

Principles of Operation for BX-LS

Bright Eye Microprocessor
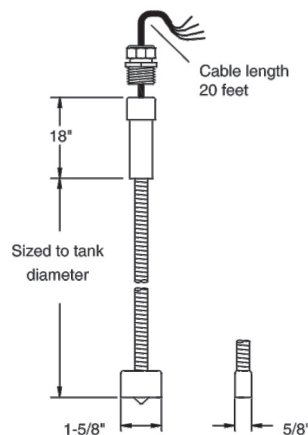
LED

Prism

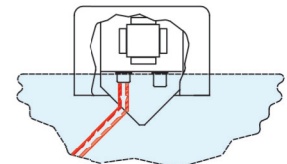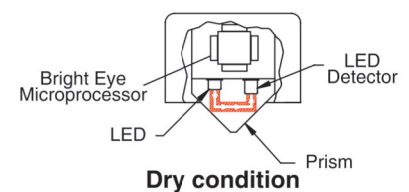LED Detector

Dry condition

Wet Condition

BX-LWF
Sensor for Dry Double-Wall Fiberglass Tanks

The BX-LWF non-distinguishing sensor was designed to fit into the annular space of dry double-wall fiberglass tanks. With its slim, compact shape and flexible snake like shaft, the BX-LWF can easily be installed and removed from grade. (When ordering, the part number will denote tank diameter.)
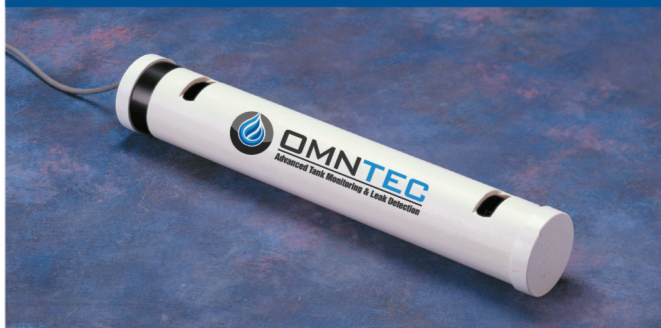
Cable length 20 feet

18"

Sized to tank diameter

1-5/8"

5/8"

Principles of Operation for BX-LWF

Bright Eye Microprocessor

LED

LED Detector

Prism
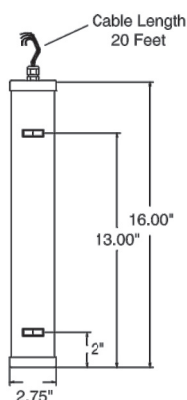
Dry condition

Wet Condition

Leak-Detection Sensors for Other Applications

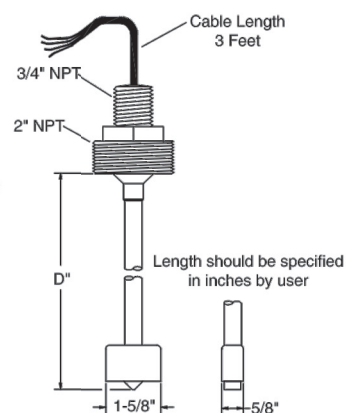

BX-RES
Sensor for Brine-Filled Double-Wall Tanks

The dual point BX-RES sensor is designed for double-wall brine filled fiberglass tanks. This sensor is made of nonmetallic corrosion resistant materials. An alarm is activated to signal changes in reservoir liquid level beyond acceptable limits (high or low).

Cable Length 20 Feet
16.00"
13.00"
2"
2.75"

BX-L-Series
Product-Level Sensor

The BX-L-series sensors are designed to provide product level alarms for high, caution or low product levels. BX-L-series sensors can be remotely tested without removal. This sensor is available with multiple alarm points.
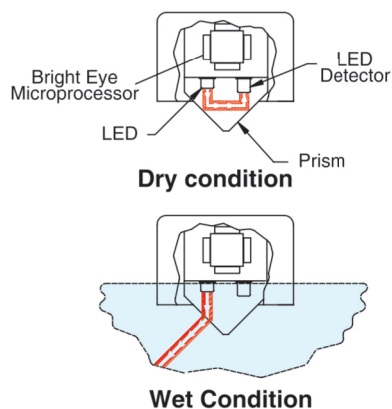
Cable Length 3 Feet
3/4" NPT
2" NPT
D"
Length should be specified in inches by user
1-5/8"
5/8"

Specifications for BX-Series Sensors

Power Consumption:	12 VDC @ 1.4 mA
Sensor Cable:	Shielded 22 AWG with drain wire (OMNTEC EC-4) Maximum length 2,000 feet
Principles of Operation: **Normal Condition:** **Alarm Condition:** (refracts) **Water Condition** (BX-PDS, BX-PDWS and BX-PDWF only):	Normally closed beam of light Normally closed beam of light opens Conductivity electrode
Response Time:	Immediate
Operating Temperature:	-15 to 140° F
*Compatible System:	OEL8000II PROTEUS Series OEL8000III-B, OEL8000III-K, OEL8000-X
Approvals:	UL listed, CUL listed, CE listed

Note: Current published specifications are subject to change without notification. Verify specifications with manufacturer.

*Please consult factory for additional compatible controllers.

Principles of Operation for BX-RES and BX-L-Series

Bright Eye Microprocessor
LED
LED Detector
Prism

Dry condition

Wet Condition

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