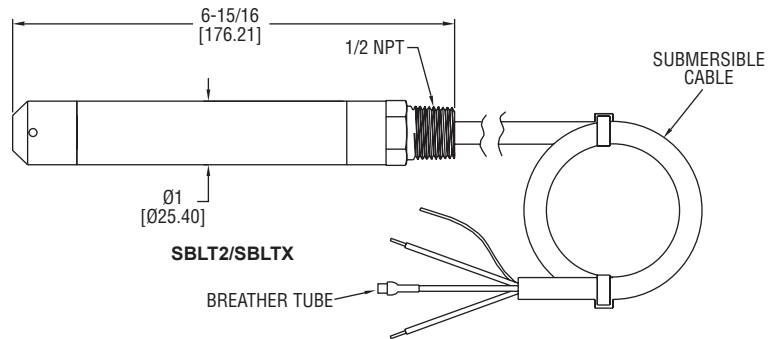


# SUBMERSIBLE LEVEL TRANSMITTERS

Perfect for Ground Water and Wells, Lightning Protected



The **SERIES SBLT2 & SBLTX** Submersible Level Transmitters are manufactured for years of trouble free service. These series measure the height of liquid above the position in the tank referenced to atmospheric pressure. The transmitter consists of a piezoresistive sensing element, encased in a 316 SS housing.

#### FEATURES/BENEFITS

- Slim design for tight applications with bullet nose design which protects the diaphragm from damage
- Incorporates lightning and surge protection utilizing dual arrestor technology, grounded to case, eliminating both power supply surges and lightning ground strike transients (surge protection is not guaranteed and is not covered by warranty) on SBLT2 models
- Maintenance free filter eliminates particulate or water droplets from entering the transducer
- UL approved intrinsically safe on SBLTX models for use in hazardous locations when used with proper barrier
- 270 lb tensile strength shielded and vented cable
- Excellent chemical compatibility
- NPT connection allows the unit to be rigidly installed in a pipe/conduit, or the addition of a A-625 hanging loop for attaching a chain for pulling out of the installation

#### APPLICATIONS

- Well monitoring
- Ground water monitoring
- Environmental remediation
- Surface water monitoring
- Down hole
- Water tanks

#### SPECIFICATIONS

**Service:** Compatible liquids.  
**Wetted Materials:** 316 SS, 316L SS, epoxy; Cable: Polyurethane or ETFE; Bullet nose: PVC.  
**Accuracy:** ±0.25% FS.  
**Temperature Limit:** SBLT2: 0 to 150°F (-18 to 66°C); SBLTX: 0 to 176°F (-18 to 80°C).  
**Compensated Temperature Range:** SBLT2: 0 to 140°F (-18 to 60°C); SBLTX: 0 to 176°F (-18 to 80°C).  
**Thermal Effect:** ±0.02% FS/°F.  
**Pressure Limit:** 2X FS.  
**Power Requirement:** SBLT2: 13 to 30 VDC; SBLTX: 10 to 28 VDC.  
**Output Signal:** 4 to 20 mA DC, 2-wire.  
**Response Time:** 50 ms.  
**Max. Loop Resistance:** 900 Ω at 30 VDC.  
**Electrical Connections:** Wire pigtail.  
**Mounting Orientation:** Suspended in tank below level being measured.  
**Electrical Protection:** SBLT2: Lightning and surge protection; SBLTX: None.  
**Weight:** 2.2 lb (1.0 kg).  
**Agency Approvals:** SBLT2: CE; SBLTX: CE, cULus intrinsically safe for Class I, Div. 1, Groups A, B, C, D; Class II, Div. 1, Groups E, F, G; Class III Div. 1. (according to control drawing 01-700797-00)\*.

\*Up to 196 ft (59.5 m) for ETFE cable; Up to 333 ft (101.5 m) for polyurethane cable

#### MODEL CHART

Model	Range psi* (ft w.c.) [m w.c.]	Cable Length ft (m)	Cable Type
SBLT2-5-40-ETFE	5 (11.54) [3.52]	40 (12.2)	ETFE
SBLT2-10-40-ETFE	10 (23.09) [7.04]	40 (12.2)	ETFE
SBLT2-15-60-ETFE	15 (34.63) [10.56]	60 (18.3)	ETFE
SBLT2-20-60-ETFE	20 (46.18) [14.08]	60 (18.3)	ETFE
SBLT2-5-40	5 (11.54) [3.52]	40 (12.2)	Polyurethane
SBLT2-10-40	10 (23.09) [7.04]	40 (12.2)	Polyurethane
SBLT2-15-60	15 (34.63) [10.56]	60 (18.3)	Polyurethane
SBLT2-20-60	20 (46.18) [14.08]	60 (18.3)	Polyurethane
SBLT2-3.5M-5M	4.97 (11.48) [3.5]	16.40 (5)	Polyurethane
SBLT2-5M-10M	14.21 (32.81) [10]	32.81 (10)	Polyurethane
SBLT2-10M-18M	25.58 (59.06) [18]	59.06 (18)	Polyurethane

\*Configured ranges below 5 psi (11.54 ft w.c.) (3.52 m w.c.) ±1% FS accuracy

**Note:** For intrinsically safe approval, change model number from SBLT2 to SBLTX. For custom ranges or cable lengths, contact factory.

#### ACCESSORIES

Model	Description
MTL5041	Intrinsically safe galvanic isolator
MTL7706	Intrinsically safe zener barrier
A-297	Dessicant filter for vent tube. Removes humidity for protection of the sensor. Changes color to show saturation
A-625	316 SS cable hanger use with NPT option for attaching chain for easy pulling out of application



A-297

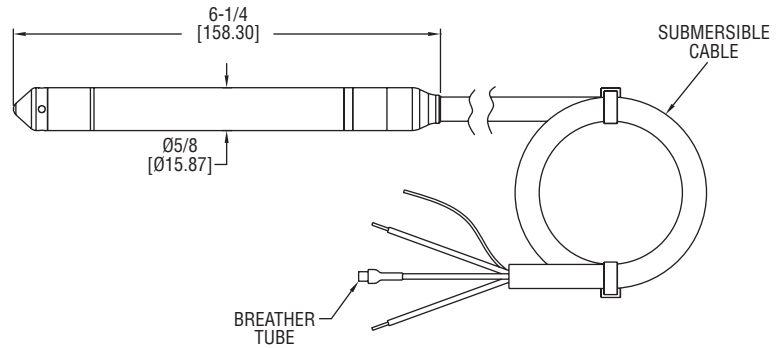
A-625

# MINIATURE SUBMERSIBLE LEVEL TRANSMITTER

Only 0.63" (16 mm) in Diameter, Perfect for Wells and Boreholes, Up to ±0.10% Accuracy, Low Power Models for Telemetry Systems



**NEW!**  
Low Power Models



The **SERIES MBLT** Miniature Submersible Level Transmitters measure the height of liquid above the position in the tank referenced to atmospheric pressure. The transmitter consists of a piezoresistive sensing element, encased in a 0.63" (16 mm) diameter 316 SS housing.

**FEATURES/BENEFITS**

- Slender 0.63" (16 mm) diameter design fits in narrow openings
- Constructed for years of trouble free service with welded 316 SS body and 316 SS nose cap
- Body top is 316 SS and tapered to prevent damage or snares when pulling the unit out of the installation
- ±0.10% or ±0.25% FS accuracy output is better than BFSL or BSL rated outputs used by most competitors
- Maintenance free filter eliminates particulate or water droplets from entering the transducer
- Comes with a choice of polyether polyurethane or ETFE cable materials for excellent chemical compatibility
- Incorporates lightning and surge protection, eliminating both power supply surges and lightning ground strike transients (surge protection is not guaranteed and is not covered by warranty)

**APPLICATIONS**

- Ballast tanks
- Ground water monitoring
- Surface water monitoring
- Dewatering
- Down hole
- Remote telemetry
- Remote flood monitoring
- Narrow conduit or pipe installations
- Remediation and environmental monitoring

**SPECIFICATIONS**

**Service:** Compatible liquids.  
**Wetted Materials:** Body and nose: 316 SS; Cable: Polyether polyurethane or ETFE; Seals: Fluoroelastomer; Label: Polyolefin.  
**Accuracy:** ±0.25% or ±0.10% FS\*\*.  
**Temperature Limits:** -4 to 176°F (-20 to 80°C).  
**Compensated Temperature Limits:** 0.25%: (0 to 70°C); 0.10%: (0 to 60°C).  
**Thermal Effect:** 0.25%: ±0.45% FS TEB; 0.10%: ±0.30% FS TEB.  
**Pressure Limit:** 2x FS.  
**Power Requirements:** Current output: 10 to 33 VDC; Voltage output: 8 to 33 VDC; 5 mA max (no load).  
**Output Signal:** 4 to 20 mA DC 2-wire or 0 to 5 V\* (model depending).  
**Response Time:** < 50 ms.  
**Max Loop Resistance:** 1000 Ω @ 30 VDC (current output).  
**Voltage Output Impedance:** 10 Ω + 4.4 Ω / 100' cable (voltage output).  
**Electrical Connections:** Wire pigtail.  
**Mounting Connection:** Suspended below point being monitored.  
**Electrical Protection:** Surge/lightning protected per EN61000-4-5, Class 5.  
**Weight:** Body: 0.235 lb (0.107 kg); Cable: 0.037 lb (0.017 kg) per foot.  
**Agency Approvals:** CE.

\*Consult factory for additional outputs.  
 \*\*4.3 to 4.9 psi (10 to 11.54 in w.c.) configured ranges ±0.30% FS accuracy

**OPTIONS**

For custom ranges, cable lengths, or ETFE cable, contact the website.

**ACCESSORY**

Model	Description
A-297	Dessicant filter for vent tube. Removes humidity for protection of the sensor. Changes color to show saturation



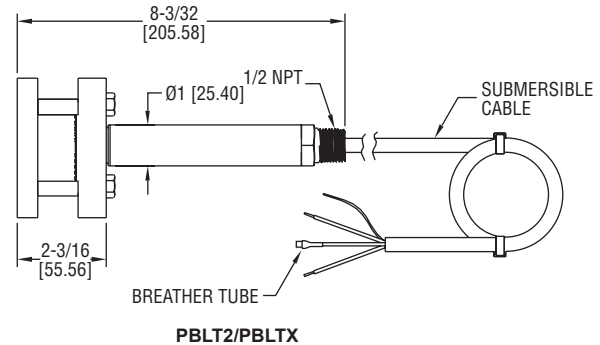
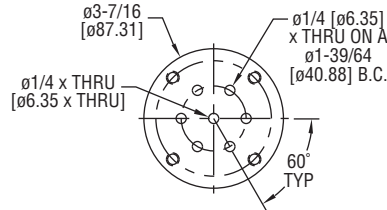
A-297

MODEL CHART					
4 to 20 mA output Model ±0.10%	4 to 20 mA output Model ±0.25%**	0 to 5 V output Model ±0.25%**	Range psi (' w.c.) [m w.c.]	Cable Length	Cable Type
-	MBLT-2SC-IVPP-5-40	MBLT-2SC-VVPP-5-40	5 (11.54) [3.52]	40 ft	Polyether polyurethane
-	MBLT-2SC-IVPF-15-40	MBLT-2SC-VVPF-15-40	6.50 (15) [4.57]	40 ft	Polyether polyurethane
-	MBLT-2SC-IVPM-5-12.2	MBLT-2SC-VVPM-5-12.2	7.10 (16.40) [5]	12.2 m	Polyether polyurethane
-	MBLT-2SC-IVPM-10-30**	MBLT-2SC-VVPM-10-30**	14.22 (32.84) [10]	9.14 m	Polyether polyurethane
MBLT-2SB-IVPF-20-40	MBLT-2SC-IVPF-20-40	MBLT-2SC-VVPF-20-40	8.66 (20) [6.10]	40 ft	Polyether polyurethane
MBLT-2SB-IVPF-30-50	MBLT-2SC-IVPF-30-50	MBLT-2SC-VVPF-30-50	12.99 (30) [9.14]	50 ft	Polyether polyurethane
MBLT-2SB-IVPM-10-15.2	MBLT-2SC-IVPM-10-15.2	MBLT-2SC-VVPM-10-15.2	14.21 (32.81) [10]	15.2 m	Polyether polyurethane
MBLT-2SB-IVPF-50-70	MBLT-2SC-IVPF-50-70	MBLT-2SC-VVPF-50-70	21.65 (50) [15.24]	70 ft	Polyether polyurethane
MBLT-2SB-IVPM-20-26	MBLT-2SC-IVPM-20-26	MBLT-2SC-VVPM-20-26	28.42 (65.62) [20]	26 m	Polyether polyurethane
MBLT-2SB-IVPM-30-36	MBLT-2SC-IVPM-30-36	MBLT-2SC-VVPM-30-36	42.63 (98.43) [30]	36 m	Polyether polyurethane
MBLT-2SB-IVPF-100-120	MBLT-2SC-IVPF-100-120	MBLT-2SC-VVPF-100-120	43.31 (100) [30.48]	120 ft	Polyether polyurethane
MBLT-2SB-IVPM-40-46	MBLT-2SC-IVPM-40-46	MBLT-2SC-VVPM-40-46	56.83 (131.23) [40]	46 m	Polyether polyurethane
MBLT-2SB-IVPF-150-170	MBLT-2SC-IVPF-150-170	MBLT-2SC-VVPF-150-170	64.96 (150) [45.72]	170 ft	Polyether polyurethane
MBLT-2SB-IVPM-60-66	MBLT-2SC-IVPM-60-66	MBLT-2SC-VVPM-60-66	85.25 (196.85) [60]	66 m	Polyether polyurethane
MBLT-2SB-IVPF-200-220	MBLT-2SC-IVPF-200-220	MBLT-2SC-VVPF-200-220	86.62 (200) [60.96]	220 ft	Polyether polyurethane
MBLT-2SB-IVPF-350-370	MBLT-2SC-IVPF-350-370	MBLT-2SC-VVPF-350-370	151.58 (350) [106.68]	370 ft	Polyether polyurethane
MBLT-2SB-IVPM-100-106	MBLT-2SC-IVPM-100-106	MBLT-2SC-VVPM-100-106	142.09 (328.08) [100]	106 m	Polyether polyurethane
MBLT-2SB-IVPM-200-206	MBLT-2SC-IVPM-200-206	MBLT-2SC-VVPM-200-206	284.18 (656.17) [200]	206 m	Polyether polyurethane
MBLT-2SB-IVPF-690-710	MBLT-2SC-IVPF-690-710	MBLT-2SC-VVPF-690-710	298.83 (690) [210.31]	710 ft	Polyether polyurethane

\*\*4.3 to 4.9 psi (10 to 11.54 in w.c.) configured ranges ±0.30% FS accuracy

# SUBMERSIBLE LEVEL TRANSMITTERS

Perfect for Sludge and Slurries, Lightning Protected



The **SERIES PBLT2 & PBLTX** Submersible Level Transmitters are manufactured for years of trouble free service in the harshest applications. These Series measure the height of liquid above the position in the tank referenced to atmospheric pressure. The transmitter consists of a piezoresistive sensing element, encased in a 316 SS housing with cage and large diameter 316 SS diaphragm seal.

## FEATURES/BENEFITS

- Durable cage design with large diameter 316 SS diaphragm seal that is non-clogging and damage resistant to floating solids
- Incorporates lightning and surge protection utilizing dual arrestor technology, grounded to case, eliminating both power supply surges and lightning ground strike transients (surge protection is not guaranteed and is not covered by warranty) on PBLT2 models
- Maintenance free filter eliminates particulate or water droplets from entering the transducer
- UL approved intrinsically safe on PBLTX models for use in hazardous locations when used with proper barrier
- 270 lb tensile strength shielded and vented cable
- Excellent chemical compatibility
- NPT connection allows the unit to be rigidly installed in a pipe/conduit, or the addition of a A-625 hanging loop for attaching a chain for pulling out of the installation

## APPLICATIONS

- Wastewater
- Sludge pits, clarifiers, digesters
- Alum tanks
- Chemical storage tanks
- Oil tanks
- Lime slurry
- Sumps
- Reservoirs

MODEL CHART			
Model	Range psi* (ft w.c.) [m w.c.]	Cable Length ft (m)	Cable Type
PBLT2-5-40	5 (11.54) [3.52]	40 (12.2)	ETFE
PBLT2-10-40	10 (23.09) [7.04]	40 (12.2)	ETFE
PBLT2-15-60	15 (34.63) [10.56]	60 (18.3)	ETFE
PBLT2-20-60	20 (46.18) [14.08]	60 (18.3)	ETFE
PBLT2-5-40-PU	5 (11.54) [3.52]	40 (12.2)	Polyurethane
PBLT2-10-40-PU	10 (23.09) [7.04]	40 (12.2)	Polyurethane
PBLT2-15-60-PU	15 (34.63) [10.56]	60 (18.3)	Polyurethane
PBLT2-20-60-PU	20 (46.18) [14.08]	60 (18.3)	Polyurethane
PBLT2-3.5M-5M-PU	4.97 (11.48) [3.5]	16.40 (5)	Polyurethane
PBLT2-5M-10M-PU	14.21 (32.81) [10]	32.81 (10)	Polyurethane
PBLT2-10M-18M-PU	25.58 (59.06) [18]	59.06 (18)	Polyurethane

\*Configured ranges below 5 psi (11.54 ft w.c.) (3.52 m w.c.) ±1% FS accuracy

**Note:** For intrinsically safe approval, change model number from PBLT2 to PBLTX. For custom ranges or cable lengths, contact factory.

## SPECIFICATIONS

- Service:** Compatible liquids.
- Wetted Materials:** 316 SS, 316L SS, epoxy, cable: ETFE or polyurethane.
- Accuracy:** ±0.25% FS (includes linearity, hysteresis, and repeatability).
- Temperature Limit:** PBLT2: 0 to 200° F (-18 to 93°C); PBLTX: 0 to 176° F (-18 to 80°C).
- Compensated Temperature Range:** PBLT2: 0 to 180° F (-18 to 82°C); PBLTX: 0 to 176° F (-18 to 80°C).
- Thermal Effect:** ±0.02% FS/°F.
- Pressure Limit:** 2X FS.
- Power Requirement:** PBLT2: 13 to 30 VDC, PBLTX: 10 to 28 VDC.
- Output Signal:** 4 to 20 mA DC, two wire.
- Response Time:** 50 ms.
- Loop Resistance:** 900 Ω.
- Electrical Connection:** Wire pigtail.
- Mounting Orientation:** Suspended in tank below level being measured.
- Electrical Protection:** PBLT2: Lightning and surge protection, PBLTX: none.
- Weight:** 4.3 lb (2.0 kg).
- Agency Approvals:** PBLT2: CE, PBLTX: CE, cULus intrinsically safe for Class I, Div. 1, Groups A, B, C, D; Class II, Div. 1, Groups E, F, G; Class III, Div. 1. (According to control drawing 01-700797-00)\*.

\*Up to 196 ft (59.5 m) for ETFE cable; Up to 333 ft (101.5 m) for polyurethane cable

## ACCESSORIES

Model	Description
MTL5041	Intrinsically safe galvanic isolator
MTL7706	Intrinsically safe zener barrier
A-297	Dessicant filter for vent tube. Removes humidity for protection of the sensor. Changes color to show saturation
A-625	316 SS cable hanger use with NPT option for attaching chain for easy pulling out of application



A-297

A-625

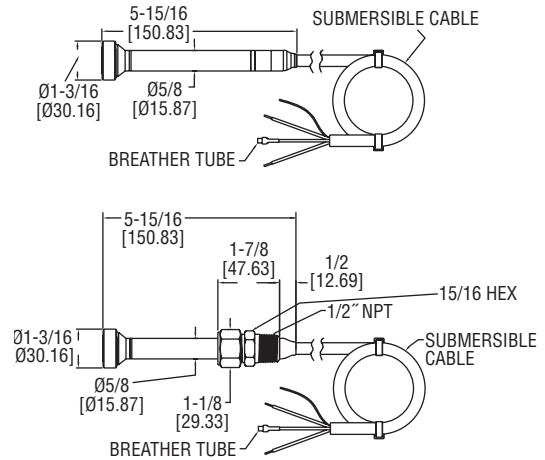
# FLUSH TIP SUBMERSIBLE LEVEL TRANSMITTER

Perfect for Sludge and Slurries, Lightning Protected,  $\pm 0.25\%$  Accuracy



FBLT

FBLT with NPT Option



NPT Option

The **SERIES FBLT** Flush Submersible Level Transmitters measure the height of liquid above the position in the tank referenced to atmospheric pressure. The transmitter consists of a piezoresistive sensing element, encased in a narrow 316 SS housing with PTFE coated flush diaphragm tip.

## FEATURES/BENEFITS

- Flush diaphragm tip will not clog in harsh applications
- Maintenance free filter eliminates particulate or water droplets from entering the transducer
- Comes with a choice of polyether polyurethane or ETFE cable materials for excellent chemical compatibility
- Incorporates lightning and surge protection, eliminating both power supply surges and lightning ground strike transients (surge protection is not guaranteed and is not covered by warranty)
- Narrow body design allows the FBLT to fit into stilling wells and narrow installations
- Robust FKM fluoroelastomer diaphragm that is PTFE coated for a stick resistant surface holds up in aggressive fluids
- Diaphragm cavity is filled with a gel that will not leak out versus oil or grease
- Optional NPT connection allows the unit to be rigidly installed in a pipe/conduit, or the addition of the A-625 hanging loop for attaching a chain for pulling out of the installation

## APPLICATIONS

- Sewage lift stations
- Industrial slurries
- Industrial sumps
- Landfill leachate
- Reservoirs
- Sludge pits
- Oil tanks

MODEL CHART			
Model	Range psi (' w.c.) [m w.c.]	Cable Length	Cable Type
FBLT-2SC-IVPF-10-20*	4.33 (10) [3.05]	20'	Polyurethane
FBLT-2SC-IVPF-10-30*	4.33 (10) [3.05]	30'	Polyurethane
FBLT-2SC-IVPP-5-40	5 (11.54) [3.52]	40'	Polyurethane
FBLT-2SC-IVPF-10-40*	4.33 (10) [3.05]	40'	Polyurethane
FBLT-2SC-IVPF-15-40	6.50 (15) [4.57]	40'	Polyurethane
FBLT-2SC-IVPF-20-40	8.66 (20) [6.10]	40'	Polyurethane
FBLT-2SC-IVPF-30-50	12.99 (30) [9.14]	50'	Polyurethane
FBLT-2SC-IVPE-5-40	5 (11.54) [3.52]	40'	ETFE
FBLT-2SC-IVEF-15-40	2.82 (15) [4.57]	40'	ETFE
FBLT-2SC-IVEF-20-40	8.66 (20) [6.10]	40'	ETFE
FBLT-2SC-IVEF-30-50	12.99 (30) [9.14]	50'	ETFE
FBLT-2SC-IVPE-10-40	10 (32.09) [7.04]	40'	ETFE
FBLT-2SC-IVPE-15-60	15 (34.63) [10.56]	60'	ETFE
FBLT-2SC-IVPP-10-40	10 (32.09) [7.04]	40'	Polyurethane
FBLT-2SC-IVPP-10-60	10 (32.09) [7.04]	60'	Polyurethane
FBLT-2SC-IVPP-15-60	15 (34.63) [10.56]	60'	Polyurethane
FBLT-2SC-IVPF-35-60	15.16 (35) [10.67]	60'	Polyurethane
FBLT-2SC-IVPP-20-60	20 (196.85) [60]	60'	Polyurethane

\*4.3 to 4.9 psi (10 to 11.54 in w.c.) configured ranges  $\pm 0.30\%$  FS accuracy

**Note:** Cables can be ordered shorter or longer in polyurethane or ETFE. Other ranges are available and can be ordered in psi, ft w.c., or m w.c. Please see website.

## SPECIFICATIONS

**Service:** Compatible liquids.  
**Wetted Materials:** Body: 316 SS; Cable: Polyether polyurethane or ETFE; Diaphragm: PTFE coated FKM fluoroelastomer; Label: Polyethylene polyamid.  
**Accuracy:**  $\pm 0.25\%$  FS (10' w.c. range is  $\pm 0.30\%$  FS).  
**Temperature Limits:** -4 to 176°F (-20 to 80°C).  
**Compensated Temperature Limits:** 32 to 140°F (0 to 60°C).  
**Thermal Effect:**  $\pm 0.0075\%/^{\circ}\text{F}$  ( $\pm 0.0135\%/^{\circ}\text{C}$ ).  
**Pressure Limit:** 2x range.  
**Power Requirements:** 10 to 33 VDC.  
**Output Signal:** 4 to 20 mA DC 2-wire.  
**Response Time:** < 50 ms.  
**Max Loop Resistance:** 1000  $\Omega$  @ 30 VDC.  
**Electrical Connections:** Wire pigtail.  
**Mounting Connection:** Suspended below point being monitored.  
**Electrical Protection:** Surge/lightning protected per EN61000-4-5, Class 5.  
**Weight:** Body: 0.3 lb (0.136 kg); Cable: 0.037 lb (0.009 kg) per foot.  
**Agency Approvals:** CE.

## OPTIONS

To order add suffix:	Description
-NPT	1/2" NPT connection to connect conduit, piping, or cable hanger. All 316 SS
-FC	Factory calibration certificate

**Example:** FBLT-2SC-IVPF-20-40-FC

## ACCESSORIES

Model	Description
A-297	Dessicant filter for vent tube. Removes humidity for protection of the sensor. Changes color to show saturation
A-625	316 SS cable hanger use with NPT option for attaching chain for easy pulling out of application



A-297

A-625