

Product Features

- *Compact design, ideal for OEM applications*
- *Various process fittings available*
- *Probe lengths to 96"*
- *1/4" or 1/2" resolution*
- *All stainless steel wetted parts*
- *Aluminum, stainless, polypropylene enclosures available; general purpose or explosion proof*
- *Continuous analog level measurement*
- *Analog output via head mounted hockey puck transmitter or remotely mounted DIN Rail transmitter*
- *Undisturbed by foaming*
- *Vapor insensitive*
- *Liquid interface detection*

Description

The LFT01 is a reed-chain type float level transducer suitable for level measurement in vessels of up to 96 inches in height. Of high quality construction, all wetted parts are stainless 316; other materials are available upon request.

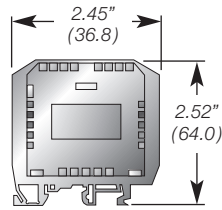
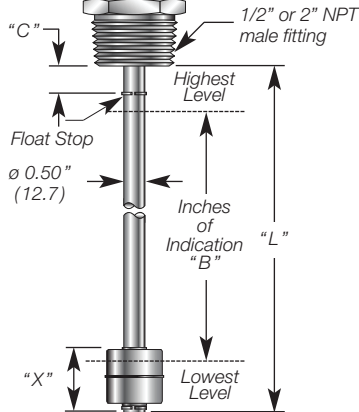
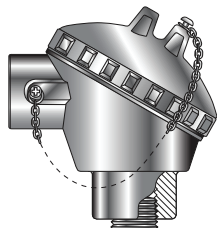
Each transducer comes standard with an enclosure, head-mounted hockey-puck (or remote mounted DIN rail) transmitter, a float, and a probe welded to fitting. Reliable operation and simple design makes the LFT01 an excellent choice for many level sensing applications.

Application / Process Notes

- *Ideal for level measurement where installation space is limited or tanks are compact*
- *Water based liquids*
- *Acids compatible with Stainless 316*
- *Hydraulic oil and other clean oil applications*
- *Chemical holding tanks with clean liquids*
- *Measurement of liquid levels in mobile equipment*
- *Machinery, Energy, Naval, Industrial, Automation*
- *Not recommended where liquids are dirty or sticky*



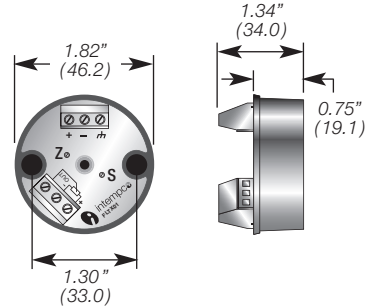
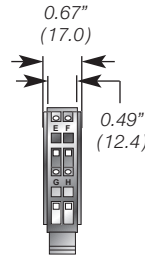
Dimensions



**DIN Rail type,
remote transmitter**

Float Factor - X

Float P/N	X
BA	2.36" (60)
CA	2.32" (59)
EB	2.05 (52)
FB	2.12 (54)



**Hockey puck type,
transmitter**

To Determine Dimensions

- L:** Overall Length
- B:** Inches of indication
- C:** Distance from bottom of mounting to float stop

Calculating Length

To find Overall Length "L" when Inches of Indication "B" is known:

$$L = B + C + X$$

To find Maximum Inches of Indication "B" when Overall Length "L" is known:

$$B = L - C - X$$

* C dimension is determined by customer. Floats are field-removable.

Technical Specifications

Sensor Specifications

Sensing Technology :	Reed Switch chain type
Measuring Range :	From 12 to 96 inches (304 to 2438mm)
Resolution :	± 0.50inch (13mm) standard ± 0.25inch (6.5mm) optional
Applicable Floats :	See Float Types - BA, CA, EB, FB
Dead Band :	Dependent on Float: See Float Types
Minimum Liquid SG :	Dependent on Float: See Float Types
Max. Pressure :	Dependent on Float: See Float Types
Media Temperature Range :	-20 to 120°C (-4 to 250°F)
Wetted Parts	
Stem :	Stainless 316 std.
Float :	See Float Types
Fitting :	Stainless 316 std.
Process Connection Size :	1/2" or 2" NPT male
Enclosures :	See Head Types - WA, PO, CA, CS, EX, CX

Transmitter Type

Hockey Puck :	Zinc die cast enamel coated, NEMA 1/IP40
DIN Rail :	Polyamide, NEMA 1/IP40
Adjustments :	Via potentiometer, 20 turn

Environmental Specifications

Ambient Temperature Range :	-20 to 60°C (-4 to 140°F)
Storage Temperature Range :	-40 to 80°C (-40 to 176°F)
Media Temperature Range :	-20 to 120°C (-4 to 250°F)

Environmental Protection : NEMA 4/IP65 or NEMA 4X/IP66 depending on enclosure selection

Output Data, 2-wire

Output Signals :	4-20 mA 2-wire
Maximum Loop Resistance :	$R_{max} = [V_{supply} - 9VDC] / 20mA$
Accuracy :	≤ ± 3.0% FS max. ≤ ± 1.5% FS typ.
Sensing Voltage & Current :	2.5 VDC max., 2.5 mA max.
Warmup :	30 sec.

Output Data, 3-wire

Output :	1-5 VDC, 0-5 VDC, 0-10 VDC, 3-wire
Max. Output Current :	10 mA
Accuracy :	≤ ± 3.0% FS max. ≤ ± 1.5% FS typ.
Sensing Voltage & Current :	2.5 VDC max., 2.5 mA max.
Warmup :	30 sec.

Electrical Specifications

Supply Voltage :	12-30 VDC
Residual Ripple Supply Voltage :	≤ 5%
Supply Voltage Protection :	Reverse polarity, excess voltage, override and short circuit protected
Supply Effect :	< 0.02% /V

Custom Builder

MODEL 1 2 3 4 5 6 7 8 9 10

LFT01 - - - - - - - - - - **N** -

BOX 1 CODE	Electronic Module
HA	4-20 mA, 2-wire output Hockey-puck type, installed
HD	1-5 VDC, 3-wire output Hockey-puck type, installed
HE	0-5 VDC, 3-wire output Hockey-puck type, installed
HF	0-10 VDC, 3-wire output Hockey-puck type, installed
DA	4-20 mA, 2-wire output DIN Rail type, remote
DD	1-5 VDC, 3-wire output DIN Rail type, remote
DE	0-5 VDC, 3-wire output DIN Rail type, remote
DF	0-10 VDC, 3-wire output DIN Rail type, remote
RA	0-5 KΩ, 3-wire output
RB	0-10 KΩ, 3-wire output
RC	0-20 KΩ, 3-wire output
Rx	0-xx KΩ, 3-wire output, Specify

Other outputs available. Consult factory.

BOX 2 CODE	Resolution
A	± 0.50 inch (12.7 mm) resolution
B	± 0.25 inch (6.4 mm) resolution

BOX 3 CODE	Enclosure
00	No head, supplied with 36" single Teflon leads
WA*	Aluminum die cast screw cover, meets NEMA 4/IP65 requirements
PO3	White polypropylene screw cover, meets NEMA 4X/IP65 requirements
CA*	Aluminum cast screw cover, epoxy coated, NEMA 4X/IP66
CS*	Cast stainless steel 316 screw cover, meets NEMA 4X/IP66 requirements
EX*	Cast aluminum, Explosion Proof, CSA, FM Approval Class I, Div. 1, Gps. B,C & D Class II, Div. 1, Gps. E, F & G, Type 4x
CX*	Cast stainless steel, Explosion Proof, CSA, FM Approval Class I, Div. 1, Gps. B,C & D Class II, Div. 1, Gps. E, F & G, Type 4x

*2 = 1/2" NPT Conduit *3 = 3/4" NPT Conduit

BOX 4 CODE	Certificates of Compliance
N	None, for non-hazardous areas

BOX 5 CODE	Float Style
BA	SS316, ø 2.10" x 2.10" L, SG=0.49
CA	SS316, ø 2.06" x 2.06" L, SG=0.60
EB	Buna N, ø 1.25" x 1.94" L, SG=0.60
FB	Buna N, ø 1.88" x 1.81" L, SG=0.55

Floats are field-removable.
Other floats available. Consult factory.

BOX 6 CODE	Fitting Type & Size
EN	1/2" NPT male*
KN	2" NPT male

*Float must be removed prior to installation.

BOX 7 CODE	Fitting Material
S	Stainless steel 316/316L

BOX 8 CODE	Probe Type
HA	Tube ø .500" x .062" wall, SS316L

BOX 9 CODE	Float Stop Distance "C"
N__	In 0.1" increments Ex.: N20 = 2.0" long

BOX 10 CODE	Probe Length "L"
---	In 0.1" increments from 12" to 99" Ex.: 165 = 16.5" long

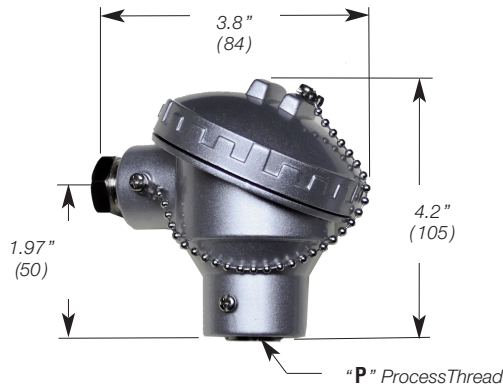
Float Types

Float Dimensions				
Part Number	BA	CA	EB	FB
Float Material	Stainless steel 316	Stainless steel 316	Buna N	Buna N
Min. Liquid SG	0.75	0.85	0.60	0.55
Operating Pressure, Max.	300 psi (21 bar)	750 psi (51 bar)	150 psi (10 bar)	150 psi (10 bar)
Operating Temp, Max.		-40°F to 300°F (-40°C to 149°C)	Water: -40°F to 180°F (-40°C to 82°C) Oil: -40°F to 230°F (-40°C to 110°C)	

Note : *2 = 1/2" NPT Conduit
*3 = 3/4" NPT Conduit

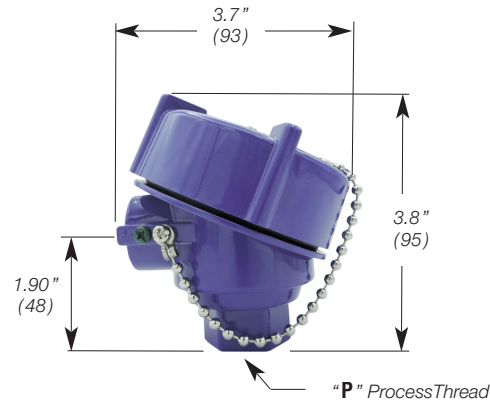
C=Conduit Thread
P=Process Thread

Aluminum Type WA*



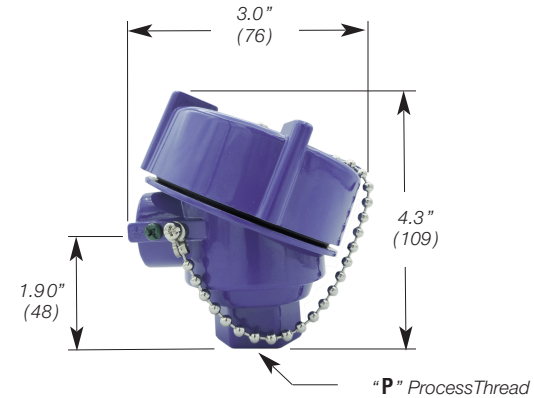
- Alum. Die Cast Screw Cover Head
- General Purpose
- 1/2" or 3/4" NPT Conduit
- Temp. range: -40 to 100°C - buna seal (std.)
-40 to 150°C - silicone seal
- NEMA Type 4 (IP66)
- Finish : polyester, natural alum. colour
- Weight 0,8 lb. (270 gr.)
- Std. 33 mm & 40 mm C-C Mounting
- Maximum space for transmitter :
42 mm x 28 mm (2 in x 1.3 in)

Aluminum Type CA*



- Alum. Die Cast Screw Cover Head
- General Purpose
- 1/2" or 3/4" NPT Conduit
- Temp. range : -40 to 100°C - buna seal (std.)
-40 to 150°C - silicone seal
- NEMA Type 4 (IP66)
- Finish : Epoxy Blue colour
- Weight 1,1 lb. (500 gr.)
- Std. 33 mm & 40 mm C-C Mounting
- Maximum space for transmitter :
50 mm x 21 mm (2 in x 1.3 in)

Aluminum Ex Type EX*



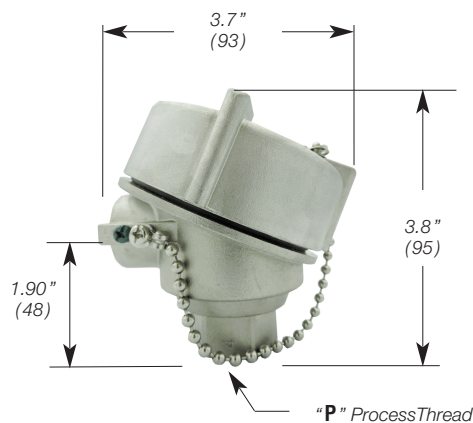
- Alum. Die Cast Screw Cover Head
- Certification : FM /CSA
Class I, Div. 1, Gps. B,C & D Class II,
Div. 1, Gps. E, F&G, Type 4x IP68
- 1/2" or 3/4" NPT Conduit
- Temp. range : -40 to 100°C - buna seal (std.)
-40 to 150°C - silicone seal
- NEMA Type 4X (IP66)
- Finish : Epoxy Blue colour
- Weight 1,1 lb. (500 gr.)
- Std. 33 mm & 40 mm C-C Mounting
- Maximum space for transmitter :
50 mm x 21 mm (2 in x 1.3 in)

Polypropylene Type PO*



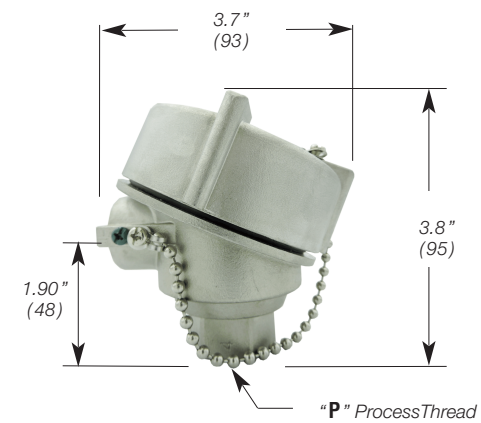
- Polypropylene Molded Screw Cover Head
- General Purpose, FDA approved
- 3/4" NPT Conduit only
- Temp. range: -40 to 80°C - buna seal (std.)
- Stainless steel chain & screw
- NEMA Type 4X (IP66)
- Finish : White colour
- Weight 0,8 lb. (270 gr.)
- Std. 33 mm & 40 mm C-C Mounting
- Maximum space for transmitter :
42 mm x 28 mm (2 in x 1.3 in)

Stainless Type CS*



- Stainless 304/316 Cast Screw Cover Head
- General Purpose
- 1/2" or 3/4" NPT Conduit
- Temp. range : -40 to 100°C - buna seal (std.)
-40 to 150°C - silicone seal
- NEMA Type 4X (IP66)
- Finish : Cast Stainless
- Weight 2,7 lb. (1260 gr.)
- Std. 33 mm & 40 mm C-C Mounting
- Maximum space for transmitter :
50 mm x 21 mm (2 in x 1.3 in)

Stainless Ex Type CX*



- Stainless 304/316 Cast Screw Cover Head
- Certification : FM /CSA
Class I, Div. 1, Gps. B,C & D Class II,
Div. 1, Gps. E, F&G, Type 4x IP68
- 1/2" or 3/4" NPT Conduit
- Temp. range : -40 to 100°C - buna seal (std.)
-40 to 150°C - silicone seal
- NEMA Type 4X (IP66)
- Finish : Cast Stainless
- Weight 2,7 lb. (1260 gr.)
- Std. 33 mm & 40 mm C-C Mounting
- Maximum space for transmitter :
50 mm x 21 mm (2 in x 1.3 in)