

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 available*
- *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.

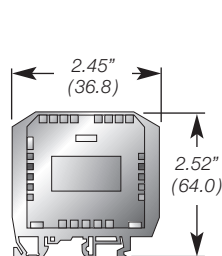
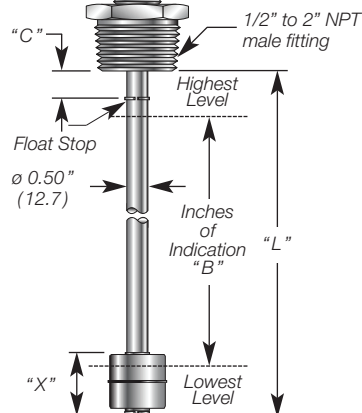
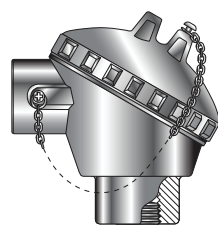
Each transducer comes standard with an enclosure, head-mounted hockey-puck (or remote mounted DIN rail) transmitter, a float, and a probe welded to fitting. Reliable operation and simple design makes the LFT01 an excellent choice for many level sensing applications.

Application / Process Notes

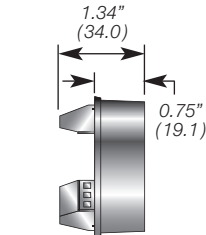
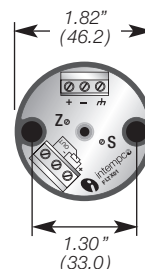
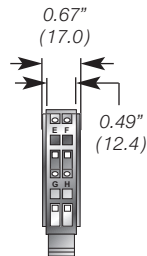
- *Ideal for level measurement where installation space is limited or tanks are compact*
- *Water based liquids*
- *Acids compatible with Stainless 316*
- *Hydraulic oil and other clean oil applications*
- *Chemical holding tanks with clean liquids*
- *Measurement of liquid levels in mobile equipment*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



Dimensions



**DIN Rail type,
remote transmitter**



**Hockey puck type,
transmitter**

Float Factor - X

Float P/N	X
BA	2.36" (60)
CA	2.32" (59)
DA	2.36" (60)
EA	2.32" (59)
FA	1.62" (41)
PP	2.00" (51)
EB	2.25" (57)
FB	1.62" (41)

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.
Dim in (xx) are in mm.

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
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

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 : Rmax. = [Vsupply - 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** -

BOX1 CODE	Electronic Module
HA	4-20mA, 2-wire output Hockey-puck type, installed
HD	1-5VDC, 3-wire output Hockey-puck type, installed
HE	0-5VDC, 3-wire output Hockey-puck type, installed
HF	0-10VDC, 3-wire output Hockey-puck type, installed
DA	4-20mA, 2-wire output DIN Rail type, remote
DD	1-5VDC, 3-wire output DIN Rail type, remote
DE	0-5VDC, 3-wire output DIN Rail type, remote
DF	0-10VDC, 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.

BOX2 CODE	Resolution
A	± 0.50 inch (12.7 mm) resolution
B	± 0.25 inch (6.4 mm) resolution

BOX3 CODE	Enclosure
00	No head, supplied with 36" single Teflon leads
WA*	Aluminum die cast screw cover, meets NEMA 4X/IP65 requirements
P03	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	

BOX4 CODE	Type of Float Stop
N	C-Clip/Retaining Ring (fixed)
C	Set Screw Collar (adjustable)

BOX5 CODE	Float Style
BA	SS316, ø2.10" x 2.10" L, SG=0.49
CA	SS316, ø2.06" x 2.06" L, SG=0.60
DA	SS316, ø1.68" x 2.10" L, SG=0.50
EA	SS316, ø1.61" x 2.00" L, SG=0.60
FA	SS316, ø1.57" x 1.38" L, SG=0.60
PP	PolyP, ø1.77" x 1.66" L, SG=0.48
EB	Buna N, ø1.24" x 1.95" L, SG=0.55
FB	Buna N, ø1.36" x 1.26" L, SG=0.55
00	No Float

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

BOX6 CODE	Fitting Type & Size
EN	1/2" NPT male, Downward Mounting ¹
FN	3/4" NPT male, Downward Mounting ¹
GN	1" NPT male, Downward Mounting ¹
HN	1.25" NPT male, Downward Mounting
JN	1.5" NPT male, Downward Mounting
KN	2" NPT male, Downward Mounting
EU	1/2" NPT male, Upward Mounting
FU	3/4" NPT male, Upward Mounting
F20	2" ANSI B 16.5 Class 150 RF flange
F30	3" ANSI B 16.5 Class 150 RF flange
F40	4" ANSI B 16.5 Class 150 RF flange
T20	2" Sanitary Tri-Clamp
T25	2.5" Sanitary Tri-Clamp
T30	3" Sanitary Tri-Clamp
00	No fitting (no head)

¹Float must be removed prior to installation.
Other fittings and flanges available. Consult factory.

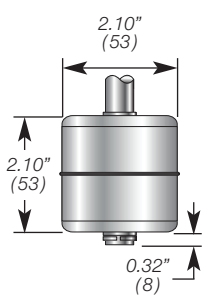
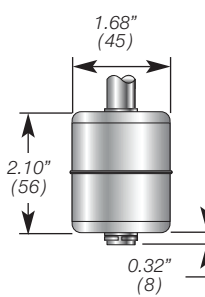
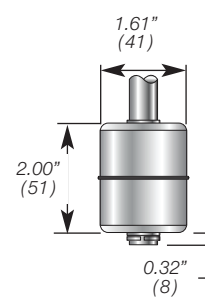
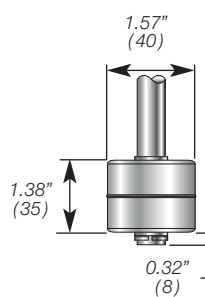
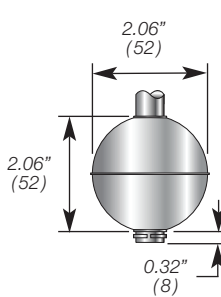
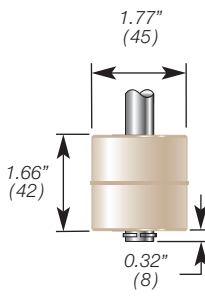
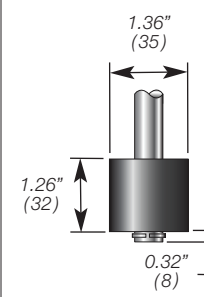
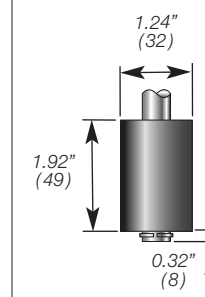
BOX7 CODE	Fitting Material
S	Stainless steel 316/316L

BOX8 CODE	Probe Type
HA	Tube ø.500" x .062" wall, SS316L

BOX9 CODE	Float Stop Distance "C"
N _ _	In 0.1" increments Ex.: N20 = 2.0" long

BOX10 CODE	Probe Length "L"
_ _ _ _	In 0.1" increments from 12" to 99" Ex.: 165 = 16.5" long

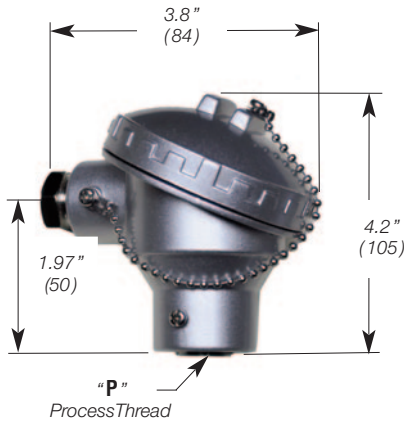
Float Types : 0.50" (12.4mm) Diameter Probe

Float Dimensions					
	Part Number	BA	DA	EA	FA
	Float Material	Stainless steel 316	Stainless steel 316	Stainless steel 316	Stainless steel 316
	Float SG/Min. Liquid SG	0.49/0.75	0.50/0.75	0.60/0.85	0.60/0.85
	Operating Pressure, Max.	300 psi (21 bar)	200 psi (14 bar)	200 psi (14 bar)	200 psi (14 bar)
Operating Temp. Max.	150°C (302°F)	150°C (302°F)	150°C (302°F)	150°C (302°F)	
Float Dimensions					
	Part Number	CA	PP	FB	EB
	Float Material	Stainless steel 316	Polypropylene	Buna N	Buna N
	Float SG/Min. Liquid SG	0.60/0.85	0.48/0.74	0.55/0.80	0.55/0.80
	Operating Pressure, Max.	750 psi (51 bar)	44 psi (3 bar)	150 psi (10 bar)	150 psi (10 bar)
Operating Temp. Max.	150°C (302°F)	80°C (176°F)	110°C (230°F)	110°C (230°F)	

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

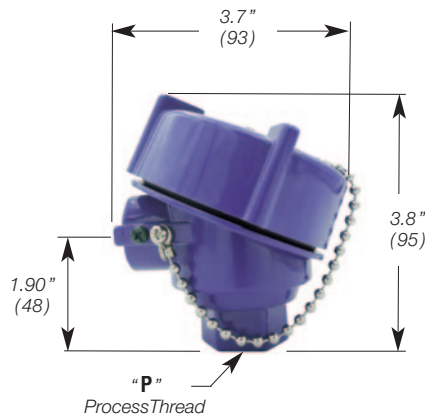
C = Conduit Thread
P = Process Thread

Aluminum Type WA*



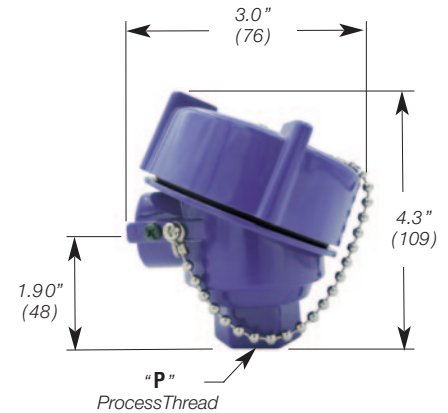
- Alum. Die Cast Screw Cover Head
- General Purpose
- 1/2" or 3/4" NPT Conduit
- Temp. range: -40 to 100°C - buna seal (std.)
-40 to 150°C - silicone seal
- NEMA Type 4 (IP66)
- Finish : polyester, natural alum. colour
- Weight 0,8 lb. (270 gr.)
- Std. 33 mm & 40 mm C-C Mounting
- Maximum space for transmitter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

Aluminum Type CA*



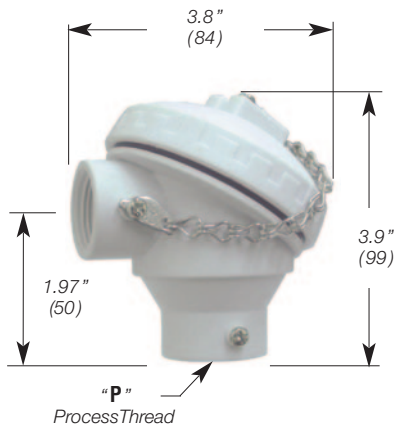
- Alum. Die Cast Screw Cover Head
- General Purpose
- 1/2" or 3/4" NPT Conduit
- Temp. range : -40 to 100°C - buna seal (std.)
-40 to 150°C - silicone seal
- NEMA Type 4 (IP66)
- Finish : Epoxy Blue colour
- Weight 1,1 lb. (500 gr.)
- Std. 33 mm & 40 mm C-C Mounting
- Maximum space for transmitter :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

Aluminum Ex Type EX*



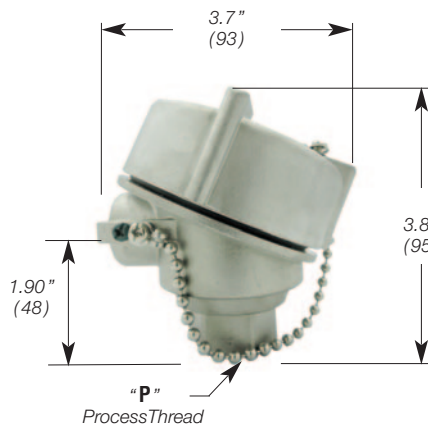
- Alum. Die Cast Screw Cover Head
- Certification : FM /CSA
Class I, Div. 1, Gps. B, C & D Class II,
Div. 1, Gps. E, F & G, Type 4x IP68
- 1/2" or 3/4" NPT Conduit
- Temp. range : -40 to 100°C - buna seal (std.)
-40 to 150°C - silicone seal
- NEMA Type 4X (IP66)
- Finish : Epoxy Blue colour
- Weight 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*



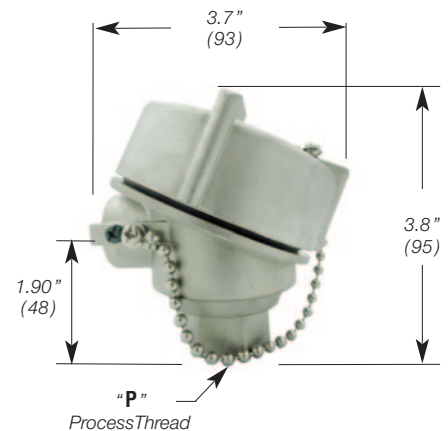
- Polypropylene Molded Screw Cover Head
- General Purpose, FDA approved
- 3/4" NPT Conduit only
- Temp. range: -40 to 80°C - buna seal (std.)
- Stainless steel chain & screw
- NEMA Type 4X (IP66)
- Finish : White colour
- Weight 0,8 lb. (270 gr.)
- Std. 33 mm & 40 mm C-C Mounting
- Maximum space for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