

TUNING FORK POINT LEVEL SWITCHES

For High/Low Liquid Levels

LTU-2000 Series
Starts at

\$336



- ✓ Unique Tuning Fork Technology, Unaffected by Variations in Density, Conductivity, Dielectric, Foam, Tank Agitation or Vibration
- ✓ 316 SS Construction with Optional ETFE Coating
- ✓ 0.1% Accuracy, 0.5 mm Repeatability
- ✓ Models Available with Fixed or Adjustable Time Delay

LTUR-2012, \$438.

LTUR-2041, \$510.

LTUR-2011, \$360.

LTUM1-2014, \$330.

All shown smaller than actual size.

The LTU-2000 Series tuning fork level switches are point level switches that detect high or low liquid levels. Based on the vibrating tuning fork principle, these units accurately detect contact with a liquid, triggering a switching output. Depending on the liquid viscosity, the LTU-2000 is virtually immune to chemical or physical properties, and can be installed at any angle into a pipe or tank. Recalibration is not required between batches, and units may be cleaned in place. Models are available with PNP, relay or direct load switching.

| Model | LTUP | LTUR | LTUM1 | LTUM2 |
|------------------------------|------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Power | 20 to 60 Vdc | 20 to 60 Vdc 20 to 264 Vac | 20 to 60 Vdc | 85 to 264 Vac |
| Output | PNP (3-wire) | SPDT relay 5 A @ 250 Vac | PNP (3-wire) | 100 mA SSR |
| Load Current | 500 mA | — | 500 mA | 500 mA |
| Electrical Connection | Cable gland or ½ NPT | Cable gland or ½ NPT | DIN 43650 plug | DIN 43650 plug |
| Time Delay | 1 to 20 sec adjustable | 1 to 20 sec adjustable | 1 sec | 1 sec |
| Enclosure | Glass filled nylon | Glass filled nylon | 316 SS DIN 43650 | 316 SS DIN 43650 |
| Operating Ambient | -10 to 80°C (14 to 176°F) | -10 to 80°C (14 to 176°F) | -10 to 120°C (14 to 248°F) | -10 to 120°C (14 to 248°F) |
| Protection | NEMA 4 (IP65) | NEMA 4 (IP65) | NEMA 6 (IP67) | NEMA 6 (IP67) |

SPECIFICATIONS

Viscosity: 10,000 cSt max
Power Consumption: ±3 mA
Switching Point: 12 mm from tip
Accuracy: ±0.1%
Repeatability: ±0.5 mm
Wetted Parts: 316 SS
Max Pressure: 50 bar (725 psi)

Dimensions:

DIN 43650 Plug (LTUM Models Only): 27 Dia x 80 mm H (1.0625 x 3.125")
Nylon Head: 88 W x 80 mm H (3.5 x 3.125")**
Aluminum Head: 89 Dia x 126 mm H (3.5 x 5")**

Insertion Length, "D" Dimension:
 80 mm (3.15") standard; measure from bottom of hex to tip of fork

** Available on LTUR and LTUP models only.

Standard Configurations

MOST POPULAR MODELS HIGHLIGHTED!

| To Order (Specify Model Number) | | |
|---------------------------------|-------|--|
| Model No. | Price | Description |
| LTUP-2011 | \$336 | Tuning fork level switch, 20 to 60 Vdc power, PNP output, 316 SS, 3/4 NPT connection, nylon enclosure, standard 80 mm (3.15") insertion depth |
| LTUR-2011 | 360 | Tuning fork level switch, 20 to 264 Vac/20 to 60 Vdc power, 5 A SPDT relay output, 316 SS, 3/4 NPT connection, nylon enclosure, standard 80 mm (3.15") insertion depth |
| LTUR-2041 | 510 | Tuning fork level switch, 20 to 264 Vac/20 to 60 Vdc power, 5 A SPDT relay output, 316 SS, 1.5" tri-clamp connection, nylon enclosure, standard 80 mm (3.15") insertion depth |
| LTUR-2012 | 438 | Tuning fork level switch, 20 to 264 Vac/20 to 60 Vdc power, 5 A SPDT relay output, 316 SS, 3/4 NPT connection, aluminum enclosure with 1/2 NPT conduit, standard 80 mm (3.15") insertion depth |
| LTUM1-2014 | 330 | Tuning fork level switch, 20 to 60 Vdc power, PNP output, 316 SS, 3/4 NPT connection, DIN 43650 plug, standard 80 mm (3.15") insertion depth |
| LTUM2-2014 | 354 | Tuning fork level switch, 85 to 264 Vac power, SSR output, 316 SS, 3/4 NPT connection, DIN 43650 plug, standard 80 mm (3.15") insertion depth |

| Model No. | Price | Description |
|----------------------|-------|--|
| LTUP-2(A)(B)(C)-(D) | \$330 | Custom tuning fork point level switch; PNP output; Select wetted material (A), process connection (B), enclosure (C) and insertion length in inches (D) |
| LTUR-2(A)(B)(C)-(D) | 354 | Custom tuning fork point level switch; relay output; Select wetted material (A), process connection (B), enclosure (C) and insertion length in inches (D) |
| LTUM1-2(A)(B)(4)-(D) | 330 | Custom tuning fork point level switch; PNP output, with miniature plug; Select wetted material (A), process connection (B), enclosure (4) and insertion length in inches (D) |
| LTUM2-2(A)(B)(4)-(D) | 354 | Custom tuning fork point level switch; SSR output, with miniature plug; Select wetted material (A), process connection (B), enclosure (4) and insertion length in inches (D) |

Options Ordering

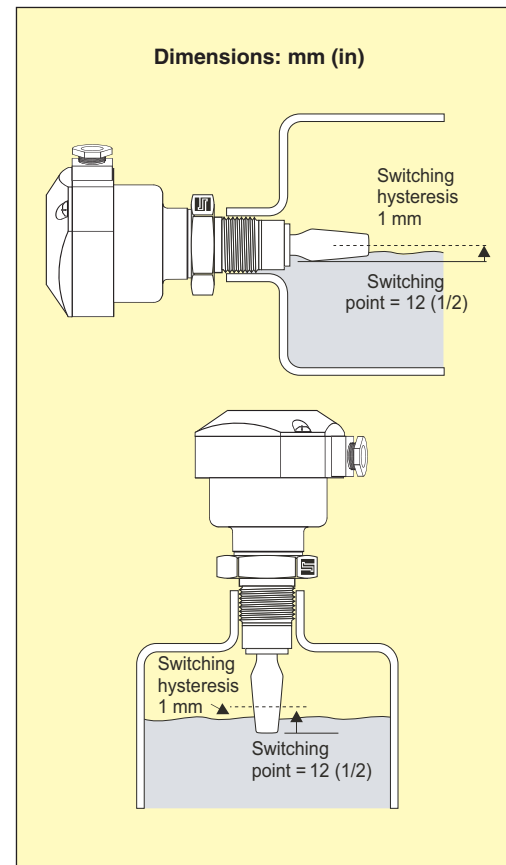
| Ordering Suffix | Add'l Price | Description |
|-----------------------------|----------------|--|
| A-Wetted Materials | | |
| 0 | N/C | 316 SS |
| 1 | \$180/ft | ECTFE/ETFE coating; flange connections recommended |
| B-Process Connection | | |
| 1 | N/C | 3/4 NPT thread |
| 2 | N/C | 1 NPT thread |
| 3 | \$150 | 1 1/2 NPT thread |
| 4 | 150 | 1.5" Tri-Grip™, sanitary* |
| 5 | 216 | 2" flange, ANSI, 15016 316 SS |
| Others | Call for price | Consult Engineering with details |
| C-Enclosure | | |
| 1 | \$6 | Glass filled nylon with 1/2 NPT conduit with cable gland** |
| 2 | 84 | Aluminum die cast with 1/2 NPT conduit entry** |
| 3 | 90 | Aluminum die cast with cable gland entry |
| 4 | N/C | 316 SS DIN 43650; for LTUM units only |
| D-Insertion Length | | |
| D (in) | \$90/ft | Rod length (in); 1.5 m (60") max |

* Tri-Grip™ (Tri-Clamp® compatible).

Comes complete with operator's manual.

Ordering Examples: LTUP-2011, tuning fork level switch, 20 to 60 Vdc power, PNP output, 316 SS, 3/4 NPT connection, nylon enclosure, 80 mm insertion depth, \$336.

LTUM2-2014, tuning fork level switch, 85 to 264 Vac power, SSR output, 316 SS, 3/4 NPT connection, DIN 43650 plug, 80 mm insertion depth, \$354.



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