# Smart Trak™ Installation Fitting

Application

The adjustable multi-point fitting enables users to install and adjust up to four Flowline level switches to any depth along the entire length of track. The fitting is typically applied in atmospheric day tanks, process vessels and waste sumps. Select the appropriate track length based upon your tank height and add one sensor car kit for each sensor to be installed on Smart Trak.
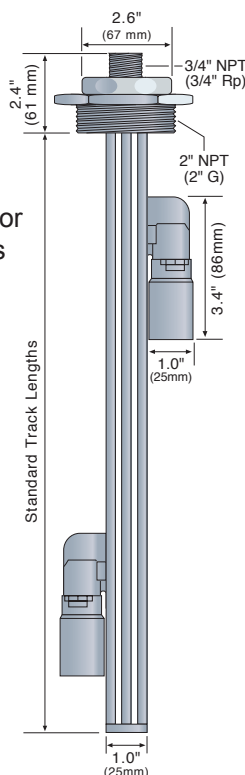
Features

☑ Adjustable level sensor cars make setup or changes fast and simple

☑ Standard track lengths are easily cut to applied length in the field

☑ Rugged polypropylene construction for use with challenging corrosive liquids
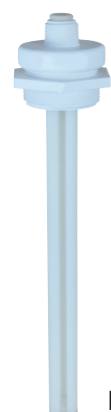
Track Kit

Track kits are offered in standard lengths with a 2" process mount and 3/4" nipple for a Flowline controller or junction box.

LM10-1201

2.6"
(67 mm)

2.4"
(61 mm)

3/4" NPT
(3/4" Rp)

2" NPT
(2" G)

3.4" (86mm)

1.0"
(25mm)

Standard Track Lengths

1.0"
(25mm)

Typical Assembly

Specifications

Fitting	
Track lengths:	US: 2', 4', 6', 8', 10'
	Metric: 1m, 2m, 3m
Adjustability:	Entire track length
Mixing velocity:	< 1.5 fps (.45 mps)
Process temp.:	F: -40˚ to 176˚
	C: -40˚ to 80˚
Pressure:	Atmospheric
Fitting material:	PP (20% glass fill)
Process mount:	1_01: 2" NPT
	1_61: 2" G
Mount. gasket:	Viton®

Side Mount	
Bracket material:	PP
Female threads:	1001: 2" NPT
	1051: 2" G
Tank installation:	Bolt or plastic weld

Car Kit

The heart of the fitting is the adjustable sensor car. Each kit includes a 3/4" car with track mounting hardware. Order one car kit for each level sensor.
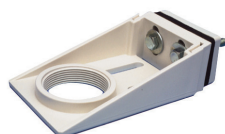
LM30-1001

Smart Trak

$$LM10-1\boxed{}\boxed{}1$$

Track length (1) (2) (3)

US			Metric	
2	24" (61 cm)		1	100 cm (39.4")
4	48" (122 cm)		3	200 cm (78.7")
6	72" (183 cm)		7	300 cm (118.1")
8	96" (244 cm)			
0	120" (305 cm)			

Process mount (4) (5)

0	NPT (US)
6	G (Metric)

LM50-1001

CE

IP65

Ordering Notes

1) Select the appropriate US or Metric track length based upon the maximum sensor depth and/or application tank height. Standard track lengths may be cut to custom lengths in the field.

2) Each track is provided with one 2" plug fitting less the required sensor cars.

3) Order one LM30-1001 (3/4" NPT) or LM30-1051 (3/4" Rp) sensor car kit for each level sensor to be installed on Smart Trak.

4) For integral wiring and/or conduit termination, order one LC05-1001 (NPT) or LC05-1051 (Rp) compact junction box.

5) For installation on open tanks, order the LM50-1001 (2" NPT) or LM50-1061 (2" G) side mount bracket.

Switch-Pak™ Installation Fitting

Application

The single-point fitting enables users to install and extend a Flowline level switch through the top wall of the tank. Offered in PVC, PP and PVDF materials, the fitting is typically applied in bulk storage tanks, day tanks and waste sumps. Each fitting is built custom to your requirements. Select the appropriate material based upon your application liquid and specify the A-dimension, taking into consideration the installed sensor length.

Features

☑ Thermal or solvent welded fitting is built to your switch insertion length

☑ Offered in PVDF, PP and PVC material for maximum chemical compatibility

Tech Tip

For easy field assembly, order the LM45-7001.0000 PVC plug fitting and adapter. Then solvent weld a 3/4" PVC schedule 40 pipe between the parts.

PVC = LM45-7001.0000
PP   = LM45-1001.0000
PVDF = LM45-5001.0000

LM45-1001

3.1" (79 mm)
1.0" (25mm)
3/4" NPT (3/4" Rp)
2" NPT (1-1/2" G)
A (Specify)
3/4" NPT (3/4" Rp)
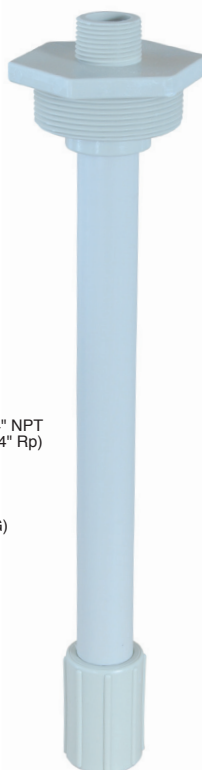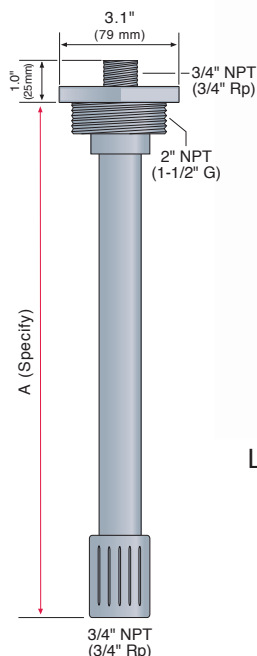
Specifications

Fitting

Length:	6" to 10' (15 cm to 3m)
Process temp.:	F: -40˚ to 176˚ C: -40˚ to 80˚
Pressure:	150 psi (10 bar) @ 25˚ C., derated @ 1.667 psi (.113 bar) per ˚C above 25˚ C
Fitting material:	70_1: PVC 10_1: PP 50_1: PVDF
Process mount:	_001: 2" NPT _061: 1.5" G
Mount. gasket:	Viton®
Sensor adapter:	3/4" NPT (3/4" Rp)

Junction Box

Sensor inputs:	1 sensor
Terminal strip:	6 pole socket
Enclosure rating:	NEMA 4X (IP65)
Encl. material:	PP, UL94VO
Encl. rotation:	300˚ swivel base
Conduit entrance:	Single, 1/2" NPT
Temp. rating:	F: -40˚ to 158˚ C: -40˚ to 70˚

Side Mount

Bracket material:	PP
Female threads:	1001: 2" NPT 1051: 2" G
Tank installation:	Bolt or plastic weld

Switch-Pak

LM45-☐0☐1-☐

Fitting material
  1   PP
  5   PVDF
  7   PVC
Process / sensor mount (1) (2)
  0   2" NPT / 3/4" NPT (US)
  6   1 1/2" G / 3/4" Rp (Metric)
Dimensions (3) (4)
  A   Specify (PP)
        (PVDF)

LM50-1001

6.1" (155 mm)
1.7" (43 mm)
3.2" (81 mm)
3.5" (89 mm)
2" NPT (2" G)
1.8" (44 mm)
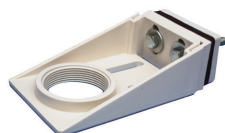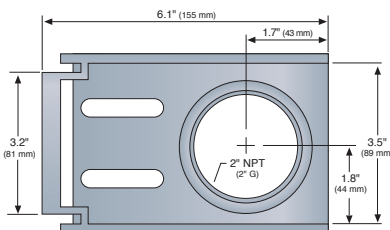
Ordering Notes
1) For integral wiring and/or conduit termination, order one LC06-1001 (NPT) or LC06-1051 (Rp) compact junction box.
2) For installation on open tanks, order the LM50-1001 (2" NPT), LM50-1061 (2" G), or LM50-1001-1 side mount bracket.
3) Specify the A-dimension at the end of the part number (ie: LM45-1001-17"). The A-dimension may be specified in 1/2" (1.3 cm) increments from 6" to 10' (15 cm to 3m). Switch-Pak will be solvent (PVC) or socket welded (PP and PVDF) per your length specification.
4) To order the plug fitting and 3/4" sensor adapter unassembled (without a 25 mm pipe) specify a zero A-dimension at the end of the part number (ie: LM45-1001.0000).

Parts & Accessories

Single & Two Indicator NEMA Box

P/N	Description
LM91-1001	Single Indicator, Non-Windowed, 1/8 DIN, PC
LM91-2001	Two Indicator, Non-Windowed, 1/8 DIN, PC
LM92-1001	Single Indicator, Windowed, 1/8 DIN, PC
LM93-1001	Two Indicator, Windowed, 1/8 DIN, PC

Single & Two Controller NEMA Box

P/N	Description
LM94-1001	Single Controller, Windowed, 35mm Rail, PC
LM95-1001	Two Controller, Windowed, 35mm Rail, PC

AC-DC Power Supply

P/N	Description
LC95-1001	110-240 VAC / 24 VDC @ 0.60A, 35mm Rail

Reducer Bushing (Thread x Thread)

P/N	Description
LM52-1400	2" NPT x 1" NPT Thread (Sch. 40), PVC
LM52-2400	3" NPT x 2" NPT Thread (Sch. 40), PVC
LM52-1800	2" NPT x 1" NPT Thread (Sch. 80), PVC
LM52-2800	3" NPT x 2" NPT Thread (Sch. 80), PVC
LM52-3800	4" NPT x 2" NPT Thread (Sch. 80), PVC

Reducer Bushing (Socket x Thread)

P/N	Description
LM52-1410	2" Socket x 1" NPT Thread (Sch. 40), PVC
LM52-2410	3" Socket x 2" NPT Thread (Sch. 40), PVC
LM52-3410	4" Socket x 2" NPT Thread (Sch. 40), PVC
LM52-1810	2" Socket x 1" NPT Thread (Sch. 80), PVC
LM52-2810	3" Socket x 2" NPT Thread (Sch. 80), PVC
LM52-3810	4" Socket x 2" NPT Thread (Sch. 80), PVC

Bulkhead Fitting

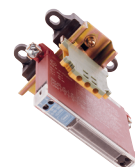| P/N	Description
LM52-1890	1" Low-Profile Bulkhead Fitting (PVC)
LM52-2890	2" Low-Profile Bulkhead Fitting (PVC)
LM52-3890	3" Low-Profile Bulkhead Fitting (PVC)

Side-Mount Bracket

P/N	Description
LM50-1001-1	2" NPT Bracket with 2" x 1" NPT Reducer
LM50-1001	2" NPT Bracket, PP
LM50-1061	2" G Bracket, PP

Flange

P/N	Description
LM52-1850	1" Flange - 150 # (Sch. 80), PVC
LM52-2850	2" Flange - 150 # (Sch. 80), PVC
LM52-3850	3" Flange - 150 # (Sch. 80), PVC

Fob USB® Adapter for WebCal Software

P/N	Description
LI99-1001	Fob USB® Adapter for WebCal

Intrinsic Safety Barrier

P/N	Description
LB11-1001	Safety Barrier for LU20-5001-IS, LD31-SXX1 & LD32-SXX1

DataView Expansion Card

P/N	Description
LI56-1011	4-20 mA Repeater
LI56-1201	2 Relay (No Repeater)
LI56-1211	2 Relay with 4-20 mA Repeater
LI56-1401	4 Relay (No Repeater)
LI56-1411	4 Relay with 4-20 mA Repeater

Submersible Pressure Mounting Kit

P/N	Description
LD90-1001	Junction Box, Term-Strip, 2" NPT, PP
LD90-1061	Junction Box, Term-Strip, 2" G, PP
LD90-5001	Junction Box, Term-Strip, 2" NPT, PVDF
LD90-5061	Junction Box, Term-Strip, 2" G, PVDF

Ultrasonic Sensor Mounting Gasket

P/N	Description
200128	1" Gasket (1.25m Range), Viton®
200129	1" Gasket (3m Range), Viton®
204038	2" Gasket (5.5m/8m/10m Range), Viton®

Non-Intrusive Capacitance Bracket

P/N	Description
LP95-1001	Mounting Bracket, PE
LP95-6001	Mounting Bracket, PP
LP95-5001	Mounting Bracket, PVDF

Switch not included