

FSK Series Fluid Level Indicators with Electric Level Switch



Model Code

FSK - 127 - 2 . 4 / 0 / / 12

Fluid Level Indicator

FSK = Electrical and visual level indicator

Size (Mounting Hole Centers)

127 = 5 inches
 176 = 7 inches
 254 = 10 inches
 381 = 15 inches

Seals

2 = Fluorocarbon

Modification Number

4 = FSK (Determined by Manufacturer)

Electrical Switch

C = Open at Normal Level
 O = Closed at Normal Level

Thermometer

(omit) = No Thermometer (standard)
 FT 100 = Probe Thermometer (100mm-3.94"LG)
 FT 200 = Probe Thermometer (200mm-7.87"LG)
 FT 300 = Probe Thermometer (300mm-11.87"LG)
 TS... = Thermo Switch (see chart on page 141)

Hex Head Bolt

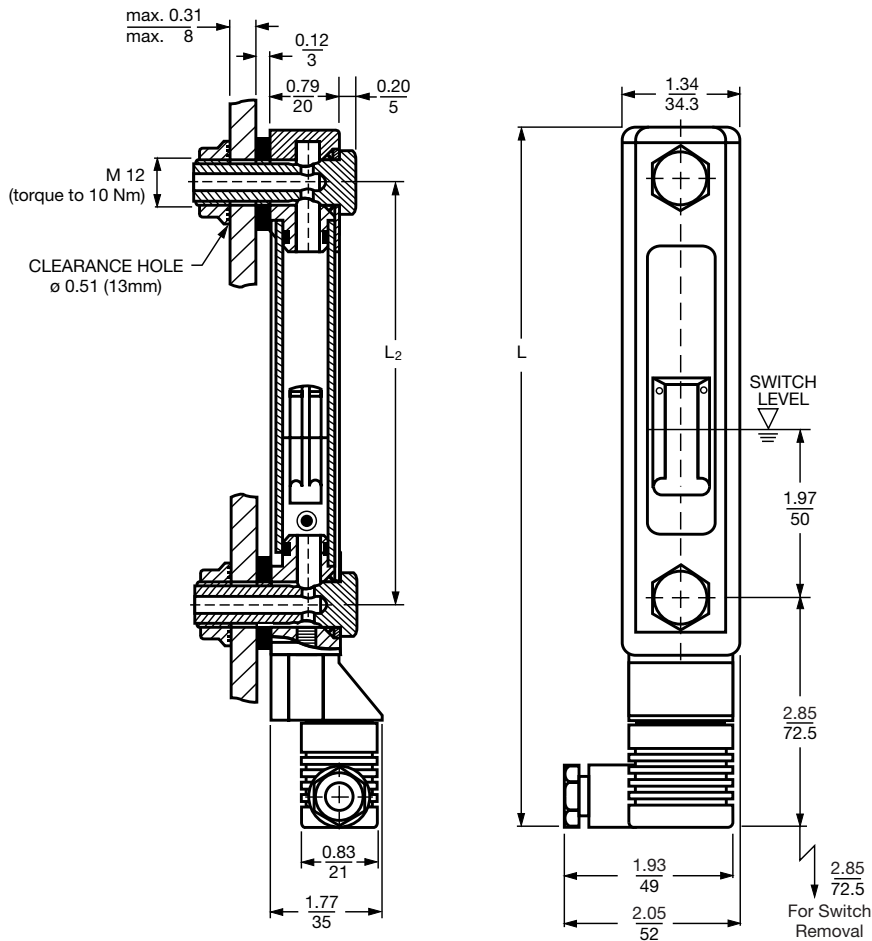
12 = M12 x 1.75 Bolt

Sight Tube

(omit) = Polyimide construction
 (not suitable for water glycols or high water based fluids)
 SO14 = Glass tube construction

Model Codes containing selections listed in red italics are non-standard items – Minimum quantities may apply – Contact HYDAC for information and availability

Dimensions



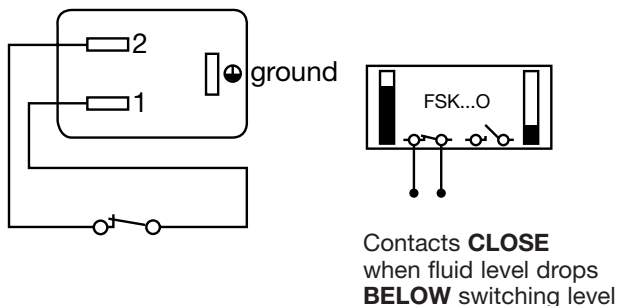
Size	L	L ₂
127	8.46 (215)	5.00 (127)
176	10.39 (264)	6.93 (176)
254	13.66 (347)	10.00 (254)
381	18.66 (474)	15.00 (381)

Dimensions are in inches/millimeters.

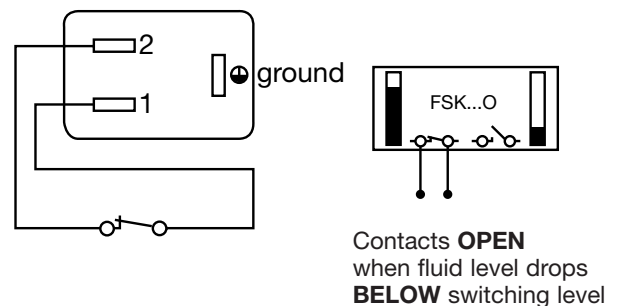
Switch Details: FSK Fluid Level Indicators

Electric Level Switch

FSK...C (Normally Open)



FSK...O (Normally Closed)



Electrical Specifications:

- **Contact Ratings** Max. 8W
- **Maximum Voltage** 50V AC or DC
- **Maximum Current** 200 mA
- **Switch Trips** when fluid level drops within 50mm of lower bolt. (see illustration)

FSA Series Fluid Level Indicators



Model Code

FSA 127 - 1 . 1 / T / 12 -

Fluid Level Indicator

FSA = Visual level indicator

Size (Mounting Hole Centers)

76 = 3 inches
 127 = 5 inches
 176 = 7 inches
 254 = 10 inches
 381 = 15 inches

Seals

1 = NBR
 2 = Fluorocarbon

Housing Material

1 = Aluminum
 2 = ABS Plastic

Thermometer

(omit) = No Thermometer
 T = Built-in Tube
 FT 100 = Probe Thermometer (100mm-3.94"LG)
 FT 200 = Probe Thermometer (200mm-7.87"LG)
 FT 300 = Probe Thermometer (300mm-11.87"LG)
 TS... = Thermo Switch (see chart on page 141)

Hex Head Bolt

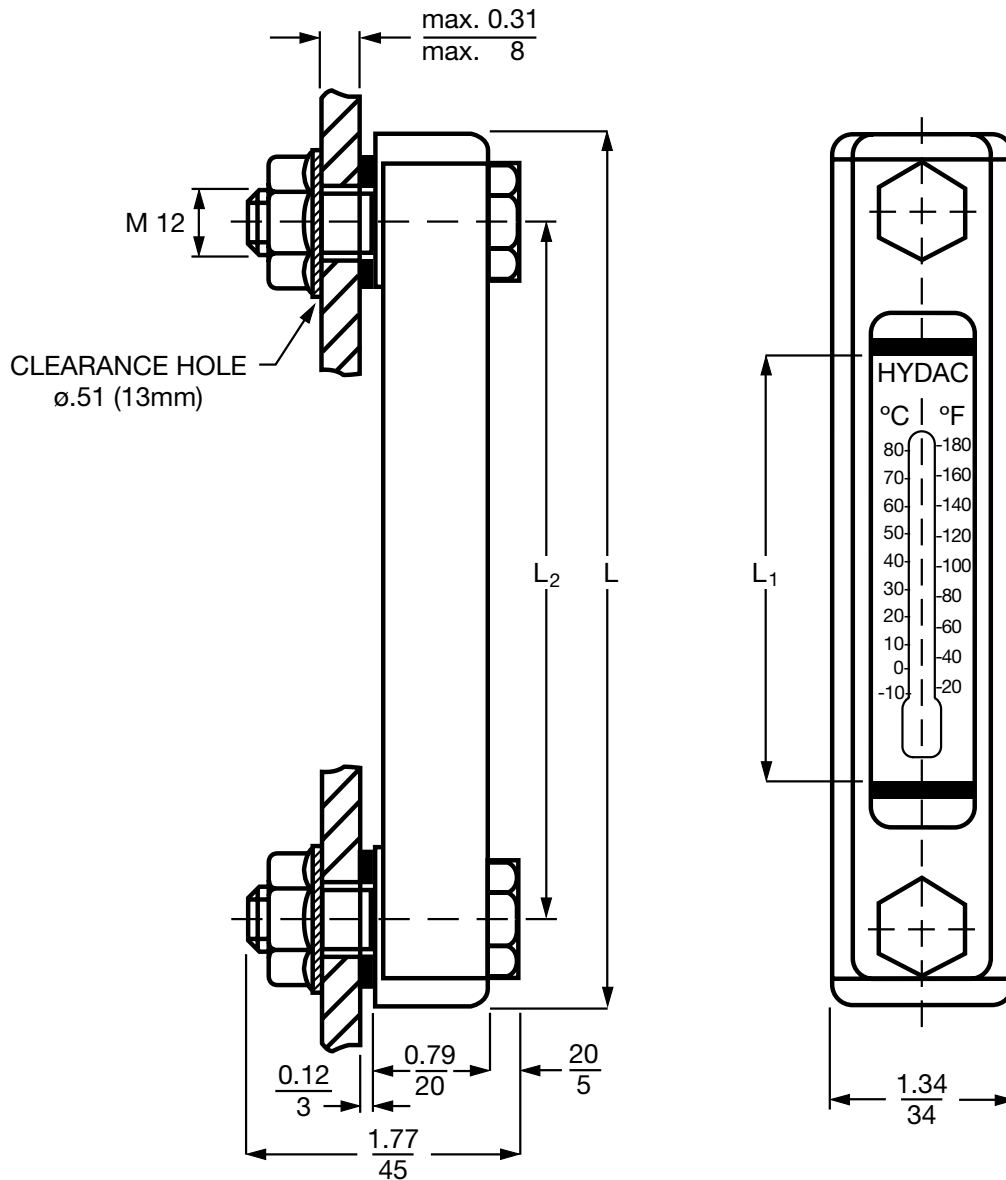
12 = M12 x 1.75 Bolt

Sight Tube Material

(omit) = Polyimide construction
 (not suitable for water glycols or high water based fluids)
 SO14 = Glass tube construction

Model Codes containing selections listed in red italics are non-standard items – Minimum quantities may apply – Contact HYDAC for information and availability

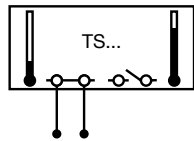
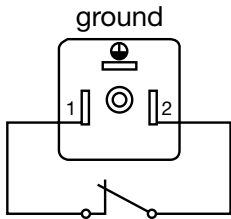
Dimensions



Size		L	L ₁	L ₂
76	inch	4.25	1.46	2.99
	mm	108	37	76
127	inch	6.26	2.99	5.00
	mm	159	76	127
176	inch	8.19	4.92	6.93
	mm	208	125	176
254	inch	11.26	7.99	10.00
	mm	286	203	254
381	inch	16.26	12.99	15.00
	mm	413	330	381

Options Fluid Level Indicators

Electric Thermo Switch / TS



Contacts **OPEN**
when fluid temperature rises
ABOVE switching temperature

Electrical Specifications:

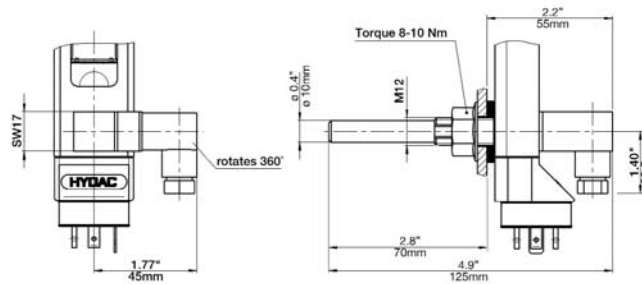
- **Maximum Voltage** 50 VAC or DC
- **Minimum Current** 50 mA
- **Contact** Normally Closed
- **Switching Tolerance** $\pm 10^\circ\text{F}$
- **Hysteresis** TS 60/70 27°F (15°C)
TS 80 36°F (20°C)

Expected Life Cycle:

- at 25 A / 50 V 10,000 cycles
- at 0.5 A / 50 V 100,000 cycles

Thermo Switch - TS...

Detail of Lower Connection
for Probe Thermometer (FT...) see chart below



Thermo Switches (Normally Closed Contact)

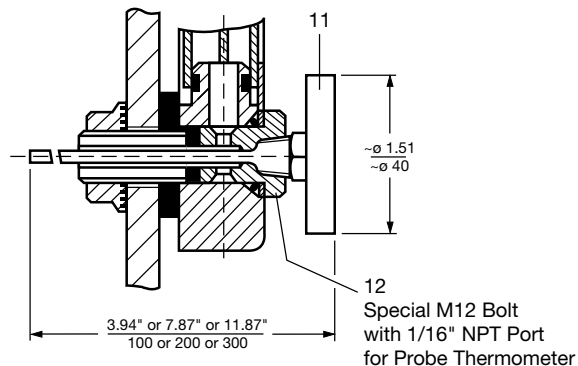
Thermo Switch Code	Model Code	Part Number	Switch Opens @	Switch Closes @	Mounting Thread
TS60	TS-L-60/X/12 THERMO-SWITCH	03252752	60°C/140°F	45°C/113°F	M 12
TS70	TS-L-70/X/12 THERMO-SWITCH	03252766	70°C/158°F	55°C/131°F	M 12
<i>TS80</i>	<i>TS-L-80/X/12 THERMO-SWITCH</i>	<i>03252767</i>	<i>80°C/176°F</i>	<i>60°C/140°F</i>	<i>M 12</i>

Probe Thermometer / FT Features:

- Analog dial type thermometer for visual temperature indication
- **Temperature Range (Dual Scale)**
0 - 212°F
0 - 100°C



Detail of Lower Connection



Probe Thermometers [Temperature Range 32°F(0°C) to 212°F(100°C)]

Thermo Switch Code	Model Code	Part Number	Mounting Thread
<i>FT100</i>	<i>FT-100 TEMP PROBE W/M12 BOLT</i>	<i>02067556</i>	<i>M 12</i>
FT200	FT-200 TEMP PROBE W/M12 BOLT	00086740	M 12
<i>FT300</i>	<i>FT-300 TEMP PROBE W/M12 BOLT</i>	<i>00086741</i>	<i>M 12</i>

Model Codes and Part numbers listed in red italics are non-standard items – Minimum quantities may apply – Contact **HYDAC** for information and availability

Technical Data

Material	
Housing	Anodized Aluminum or ABS Plastic
Sight Tube	Polyimide or Glass
Seals	Fluorocarbon, NBR
Nuts / Bolts	Steel, Zinc plated
Fluid Temperature	-4°F/-20°C to 176°F/80°C
Maximum Pressure	14.5 PSI (1 BAR)
Thermometer Range	
Type T (FSA only)	14°F(-10°C) to 176°F(80°C)
Type FT100	32°F(0°C) to 212°F(100°C)
Type FT200	32°F(0°C) to 212°F(100°C)
Type FT300	32°F(0°C) to 212°F(100°C)
Bolting Torque	Max. 8 LB-FT+1 (10 Nm +2) see installation instructions below

Recommended Installation Process

1. Drill mounting holes (13 mm) according to dimension L2.
2. Torque the Nut, item 9, to 8+ 1 LB-FT. If it is not possible to torque the nut, the bolt head must be torqued.
To avoid damaging the indicator a washer is recommended to be used under the bolt head.
This washer is available from HYDAC: Part Number 00001689.
Washer Dimensions: øD 18.8 mm, ID 13.10 mm, 0.5 mm thick

Component Parts

Item	Description	Part No.	Quantity	
			FSA	FSK
1	Housing	-	1	1
2	Name Plate	-	1	-
3	Tube	-	1	1
4*	O-Ring 13x2.5	00601916 (Fluorocarbon) 00601047 (Buna)	2	2
5	Tube Connector	-	2	2
6*	O-Ring 12.3x2.4	00601531 (Fluorocarbon) 00601045 (Buna)	2	2
7*	Sealing Washer - 27 x 12 x 3	22183158 (Fluorocarbon)	2	2
8	Hex Bolt M12	22183153	2	2
9	Hex Nut M12	22183151	2	2
10	Thermometer in Indicator Tube	00084108	1	-
11	Probe Thermometer (see page 97)	-	1	1
12	Hex Bolt for Probe Thermometer	00278741	1	1
13	Magnetic Float	-	-	1
14	Base Assembly with Type "C" Switch	-	-	1
15	Base Assembly with Type "O" Switch	-	-	1
16*	Washer (optional - see note 2 above)	00001689	1	1

* items may be purchased individually.

