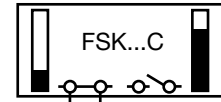
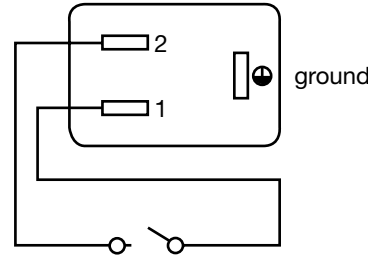


## FSK Series with Electric Level Switch



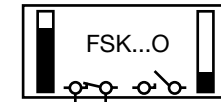
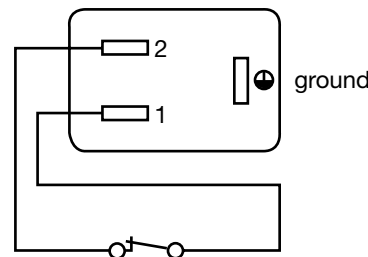
### Electric Level Switch

FSK...C (open at normal level)



Contacts **CLOSE**  
when fluid level drops  
**BELOW** switching level

FSK...O (closed at normal level)



Contacts **OPEN**  
when fluid level drops  
**BELOW** switching level

### Model Code

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

<b>Fluid Level Indicator</b>	FSK = Electrical and visual level indicator
<b>Size (Mounting Hole Centers)</b>	127 = 5 inches 176 = 7 inches 254 = 10 inches 381 = 15 inches
<b>Seals</b>	2 = Fluorocarbon
<b>Modification Number</b>	4 = FSK (Determined by Manufacturer)
<b>Electrical Switch</b>	C = Open at Normal Level O = Closed at Normal Level
<b>Thermometer</b>	(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)
<b>Hex Head Bolt</b>	12 = M12 x 1.75 Bolt
<b>Sight Tube</b>	(omit) = Polyamide 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 will apply  
Contact HYDAC for information and availability

Not all combinations are available

### Electrical Specifications

#### Contact Ratings

- Max. 8W

#### Maximum Voltage

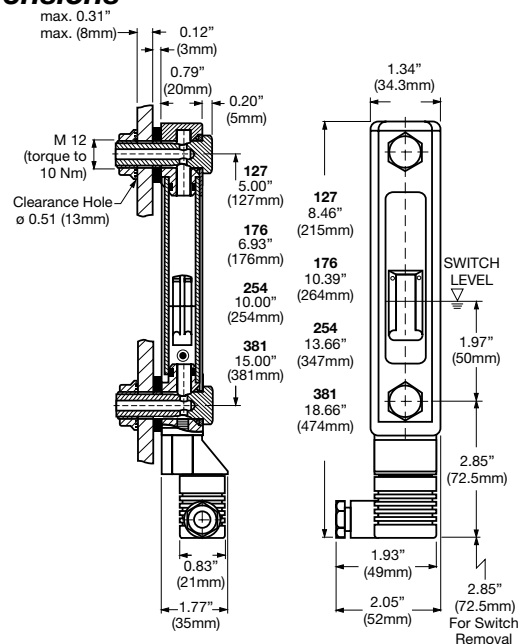
- 50V AC or DC

#### Maximum Current

- 200 mA

Magnetic Float inside tube trips switch when fluid level drops within 50mm of lower bolt. (see illustration)

### Dimensions



Dimensions are for general information only, all critical dimensions should be verified by requesting a certified print.  
Dimensions are in inches/(mm) and lbs./(kg).

## FSA Series



### Model Code

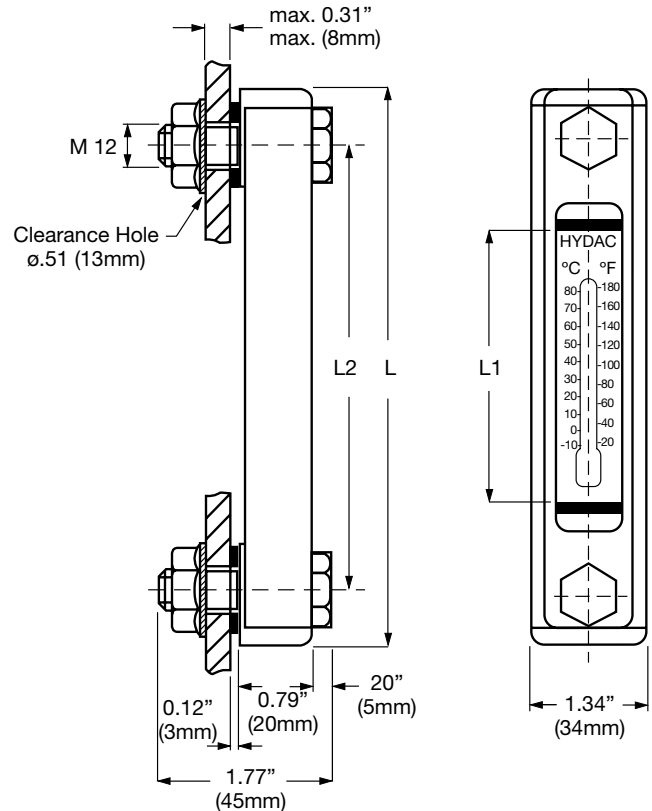
FSA 127 - 1 . 1 / T / 12 -

- 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**
  - 0 = Steel (only for SO14 glass tube construction)
  - 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) = Polyamide 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 will apply  
Contact HYDAC for information and availability

Not all combinations are available

### Dimensions

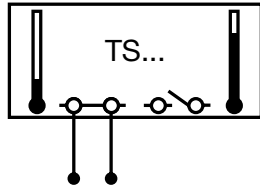
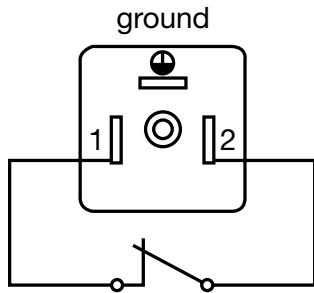


Size	L	L1	L2
76	4.25" (108mm)	1.46" (37mm)	2.99" (76mm)
127	6.26" (159mm)	2.99" (76mm)	5.00" (127mm)
176	8.19" (208mm)	4.92" (125mm)	6.93" (176mm)
254	11.26" (286mm)	7.99" (203mm)	10.00" (254mm)
381	16.26" (413mm)	12.99" (330mm)	15.00" (381mm)

Dimensions are for general information only, all critical dimensions should be verified by requesting a certified print.  
Dimensions are in inches/(mm) and lbs./(kg.)

## Options

### 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**

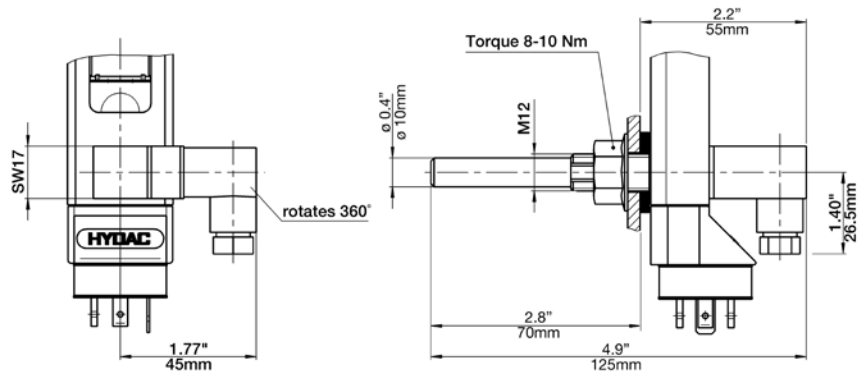
- TS 60/70 27°F (15°C)
- TS 80 36°F (20°C)

### 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
<b>TS80</b>	<b>TS-L-80/X/12 THERMO-SWITCH</b>	<b>03252767</b>	<b>80°C/176°F</b>	<b>60°C/140°F</b>	<b>M 12</b>

### Probe Thermometer / FT Features

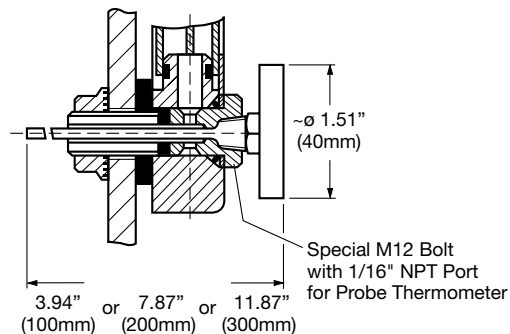
- Analog dial type thermometer for visual temperature indication

**Temperature Range (Dual Scale)**

- 0° to 212°F
- 0° to 100°C



### Detail of Lower Connection



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

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

**Technical Data**

<b>Material</b>	
Housing	Anodized Aluminum or ABS Plastic
Sight Tube	Polyamide or Glass
Seals	Fluorocarbon, NBR
Nuts / Bolts	Steel, Zinc plated
<b>Fluid Temperature</b>	-4° to 176°F (-20° to 80°C)
<b>Maximum Pressure</b>	14.5 PSI (1 BAR)
<b>Thermometer Range</b>	
Type T (FSA only)	14° to 176°F (-10° to 80°C)
Type FT100	32° to 212°F (0° to 100°C)
Type FT200	32° to 212°F (0° to 100°C)
Type FT300	32° to 212°F (0° to 100°C)
<b>Bolting Torque</b>	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	FPM-70 (Fluorocarbon)	00601916	2
		NBR-70 (Buna)	00601047	2
5	Tube Connector	-	2	2
6*	O-ring 12.3X2.4	FPM-70 (Fluorocarbon)	00601531	2
		NBR-70 (Buna)	00601045	2
7*	Washer FSA/FSK	FPM (Fluorocarbon)	22183158	2
		NBR (Buna)	00271948	2
8*	Bolt M12 SW17 FSA	22183153	2	2
9*	Nut Hex M12 FSA	22183151	2	2
10	Thermometer (In Tube)	-	1	-
11*	Probe Thermometer	See pg. 141	1	1
12*	Bolt FSA/K M12 SW17 for FT Temp Probe	03126743	1	1
13	Magnetic Float	-	-	1
14	Base Assembly w/Type "C" Switch	-	-	1
15	Base Assembly w/Type "O" Switch	-	-	1
16*	Washer FSA/FSK Steel	00001689	2	2

\* items may be purchased individually.

Items listed in RED are not sold as spare parts.

**FSA & FSK**

**FSK Only**

