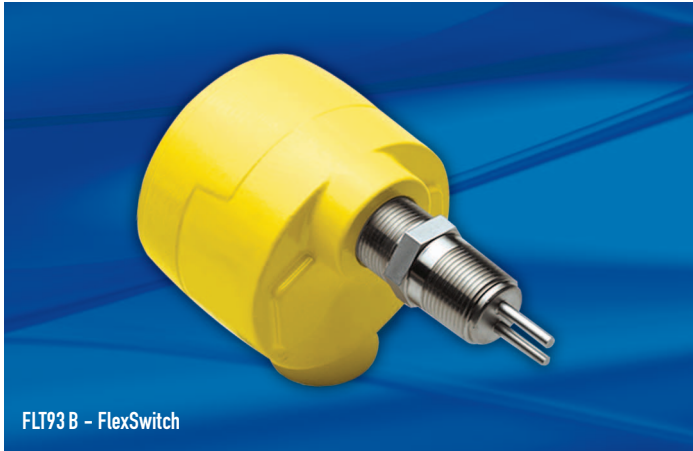


## Premium Flow, Level and Temperature Monitor



FLT93 B - FlexSwitch

Model FLT93B is a preconfigured version of FCI's Model FLT93S in its most popular configuration for simplified ordering and off-the-shelf quick shipment. For additional application and installation requirements, consult FCI's complete FLT93 Series brochure and ordering guides.

### FLT93 B Specifications

#### Flow Service - Setpoint Ranges

##### Water-based Liquids

0.01 FPS to 0.5 FPS [0,003 MPS to 0,15 MPS] -0.75 watt heater  
0.01 FPS to 3.0 FPS [0,003 MPS to 0,9 MPS] -3.0 watt heater

##### Hydrocarbon-based Liquids

0.01 FPS to 1.0 FPS [0,003 MPS to 0,3 MPS] -0.75 watt heater  
0.01 FPS to 5.0 FPS [0,003 MPS to 1,5 MPS] -3.0 watt heater

##### Air/Gas

0.25 SFPS to 120 SFPS [0,08 NMPS to 37 NMPS] -0.75 watt heater  
at standard conditions of 70 °F [21.1 °C] and 14.7 psia [1,013 bar(a)]

##### Accuracy (whichever reading is larger)

Liquids: ±0.5% reading or ±0.04 FPS [±0,012 MPS]  
Gases: ±0.5% reading or ±2 SFPS [±0,06 NMPS]

##### Repeatability: ±0.5% reading

#### Level/Interface Service

**Accuracy:** ±0.25" [± 6,4 mm]

**Repeatability:** ± 0.125" [± 3,2 mm]

#### Temperature Service

**Accuracy:** ± 2 °F [± 1 °C]

**Repeatability:** ± 1 °F [± 0,6 °C]

**Response Time:** As low as 3 seconds

### FLT93 B Specifications (continued)

#### Element

**Construction:** All-welded 316L stainless steel for all wetted surfaces

**Process Connection:** 3/4" male NPT

**Insertion U-Length:** 1.2" [30 mm], 2" [51 mm] and 4" [102 mm]

**Operating Temperature:** -40 °F to 350 °F [-40 °C to 177 °C]

**Operating Pressure:** 2350 psig [162 bar (g)]

#### Control Circuit

**Operating Temperature:** -40 °F to 140 °F [-40 °C to 60 °C]

**Input Power:** Universal AC/DC supply; input terminals and jumpers on circuit board select specific power

AC	108-132 V <sup>1</sup>	13 W, 100 mA maximum
AC	207-240 V <sup>1</sup>	14 W, 50 mA maximum
DC	18-28 V	7 W, 230 mA maximum
DC	21-30 V	7 W, 230 mA maximum

**Alarm Application:** Two alarms, independently field selected for flow, liquid level/interface, or temperature operation

**Relay Rating:** Field configurable dual SPDT or single DPDT 6 amp resistive at 115 Vac, 220 Vac or 24 Vdc

**Output Signal:** Analog DC voltage related to flow or level/interface signal and proportional to temperature

**Electrical Connection:** 1" female NPT

#### Other Specifications

**Enclosure:** Epoxy powder coated aluminum, rated for NEMA Type 4X and hazardous locations Groups B, C, D, E, F and G; EEx d IIC (meets IP66)

#### Agency Approvals

**FM, FMC** XP, Class I, Division 1, Groups B, C, D  
DIP, Class II/III, Division 1, Groups E, F, G  
T4, Ta=60 °C; T3A, Ta=60 °C

**ATEX** II 2 G Ex d IIC T6...T2 - 40 °C to 60 °C Gb

**IECEX** Ex d IIC T6 or T5

Tamb (Housing) = - 40 °C to 40 °C, T6

Tamb (Housing) = - 40 °C to 60 °C, T5

Tp (Sensing Element) = - 40 °C to 77 °C, T4

Tp (Sensing Element) = - 40 °C to 177 °C, T2

**Other Certifications:** SIL-2 rated, CRN, probe complies with Canadian Electrical Code requirements of ANSI/ISA 12.27.01-2011 as a single device, CE marking, RoHS compliant

**MTBF:** 190 years

**Shipping Weight** (approximate): 8 lb [3,6 kg]

**Warranty:** 3 years

<sup>1</sup> FM/FMC unit preset by factory as 108-132 Vac; ATEX/IEC unit preset by factory as 207-240 Vac

<sup>2</sup> Optional stainless steel tag available; required for customer tag information; order "Identification Tag" as a separate line item; may specify up to three (3) lines of 20 characters per line

### Ordering Information FLT93 B -

1      2      3      4

**Ordering Procedure:** To order a complete Model FLT93B, please fill in each numbered box above with the appropriate code from the categories below. Consult FCI on the cost of special data and documentation. Final acceptance of the part number is subject to FCI's approval.

[Block 1] Agency Approval <sup>1</sup>	Code
FM, FMC	<b>A</b>
ATEX, IECEX	<b>B</b>

[Block 2] Insertion U-Length	Code
1.2 inch [30 mm]	<b>A</b>
2.0 inch [51 mm]	<b>B</b>
4.0 inch [102 mm]	<b>C</b>

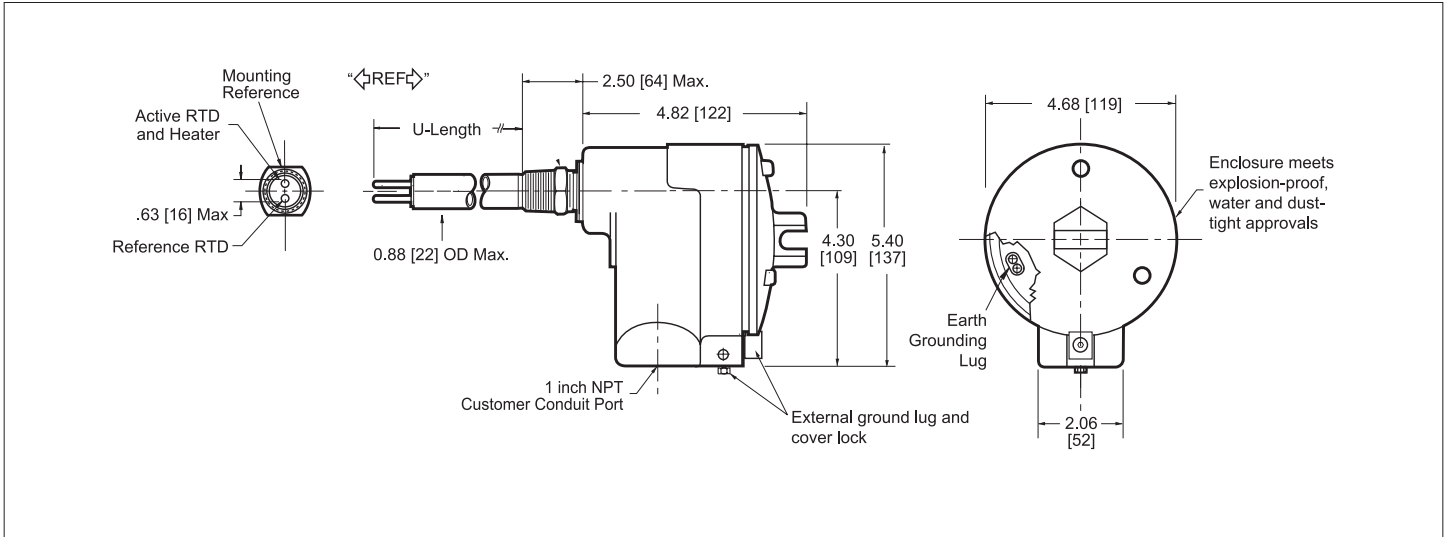
[Block 3] Identification Tag	Code
Adhesive label <sup>2</sup>	<b>0</b>
[Block 4] Input Power	Code
Field selectable	<b>0</b>

Line 1: \_\_\_\_\_

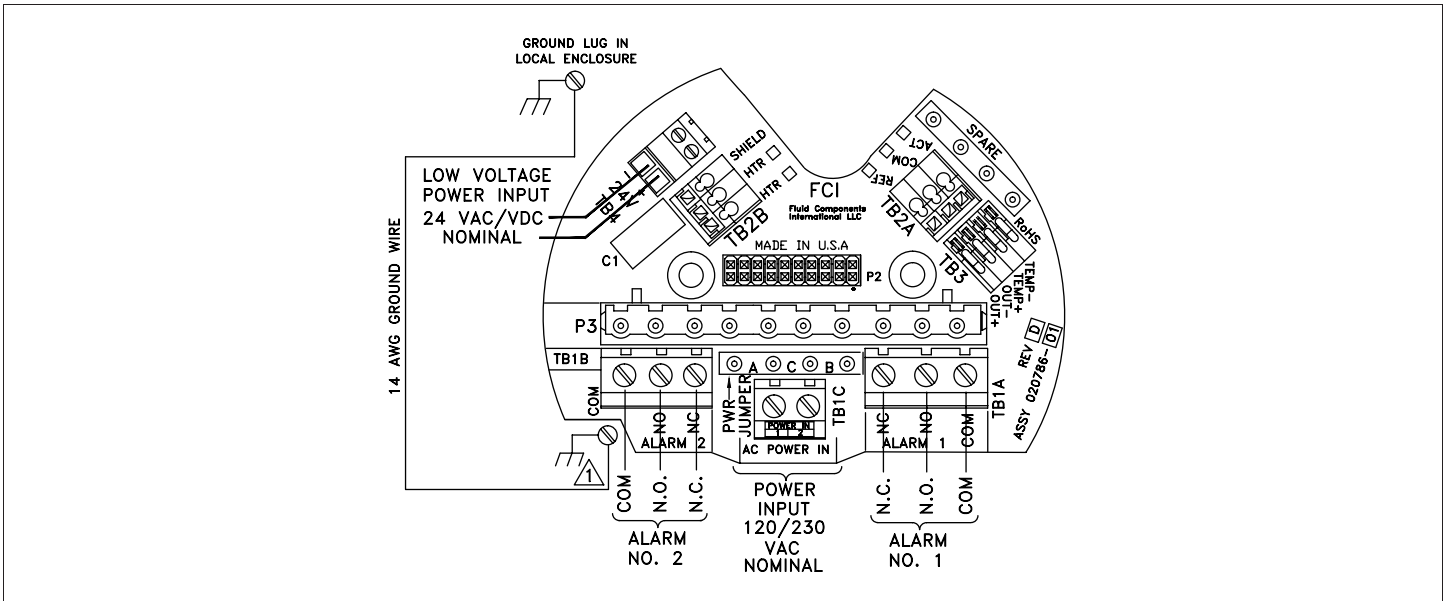
Line 2: \_\_\_\_\_

Line 3: \_\_\_\_\_

**FLT93 B, Insertion**



**FLT93 B Wiring Diagram**



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**FCI World Headquarters**

1755 La Costa Meadows Drive | San Marcos, California 92078 USA  
 Phone: 760-744-6950 Toll Free (US): 800-854-1993 Fax: 760-736-6250

**FCI Europe**

Persephonestraat 3-01 | 5047 TT Tilburg, The Netherlands | Phone: 31-13-5159989 Fax: 31-13-5799036

**FCI Measurement and Control Technology (Beijing) Co., LTD | [www.fluidcomponents.cn](http://www.fluidcomponents.cn)**

Room 107, Xianfeng Building II, No.7 Kaituo Road, Shangdi IT Industry Base, Haidian District | Beijing 100085, P. R. China  
 Phone: 86-10-82782381 Fax: 86-10-58851152

