

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

Repeatability: $\pm 0.5\%$ reading

Level/Interface Service

Accuracy: ± 0.25 " [$\pm 6,4$ mm]

Repeatability: ± 0.125 " [$\pm 3,2$ mm]

Temperature Service

Accuracy: ± 2 °F [± 1 °C]

Repeatability: ± 1 °F [$\pm 0,6$ °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] or 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 ¹	13 W, 100 mA maximum
AC	207-253 V ¹	14 W, 50 mA maximum
AC	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

Other Specifications

Enclosure: Polyester powder coated aluminum rated for NEMA Type 4X/IP67; 1 inch female NPT conduit port

Agency Approvals

FM/FMc XP, Class 1, Div. 1 Groups B,C,D, T3A or T4 Ta ≤ 60 °C
DIP, Class II/III, Div. 1, Groups E,F,G, T3A or T4 Ta ≤ 60 °C
Nonincendive for Class I, II and III, Division 2, Groups A,B,C,D,E,F, and G, T3A or T4 -40 °C \leq Ta ≤ 60 °C; hazardous (classified) locations, indoors and outdoors
Type 4X

ATEX II 2 G Ex db IIC T4...T2 Gb

II 2 D Ex tb IIIC T135 °C...T300 °C Db

IECEX Ex db IIC T4...T2 Gb

Ex tb IIIC T135 °C...T300 °C Db

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

¹ FM/FMc unit preset by factory as 108-132 Vac; ATEX/IEC unit preset by factory as 207-253 Vac

Ordering Information FLT93 B - | | | | | |---|---|---|---| | | | 0 | 0 | | 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.²

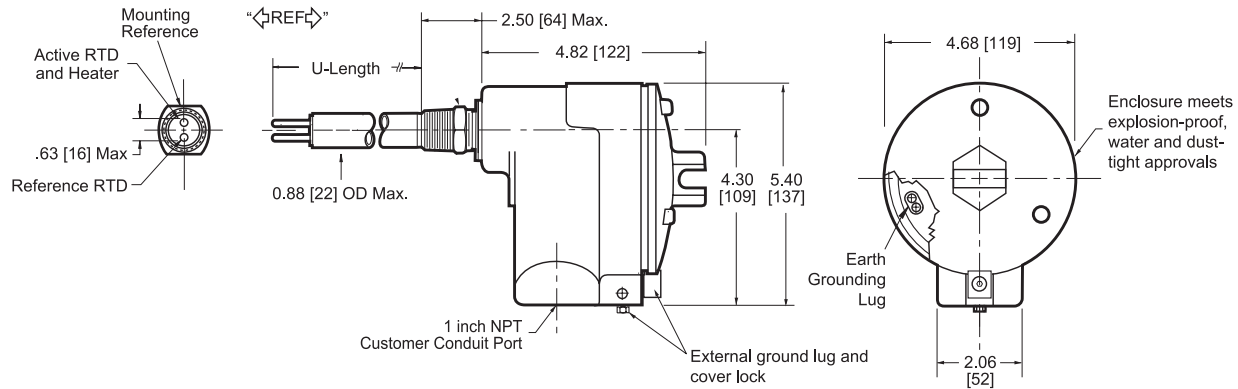
[Block 1] Agency Approval ¹	Code
FM, FMc	A
ATEX, IECEx	B

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

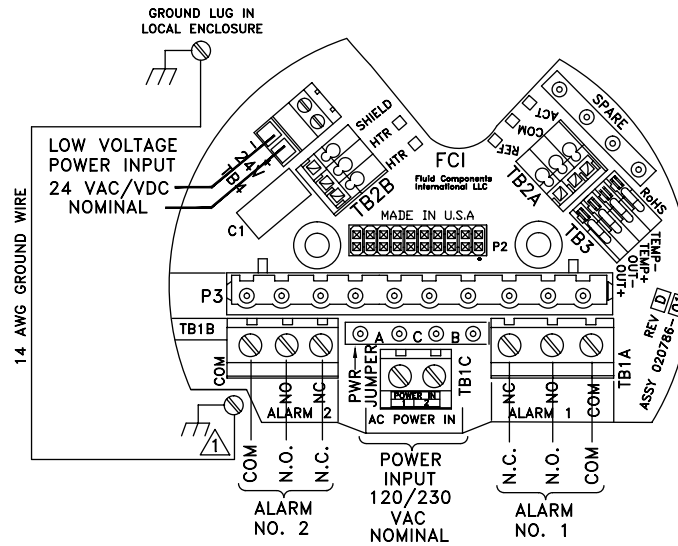
[Block 3] Identification Tag	Code
Stainless steel metal tag ²	0
[Block 4] Input Power	Code
Field selectable ¹	0

² For any other requirements – such as custom user tag information, specific certifications or test documentation, alternative agency approvals, longer insertion U-lengths or a different process connection – please refer to and order Model FLT93S.

FLT93 B, Insertion



FLT93 B Wiring Diagram



FCI FLUID COMPONENTS INTERNATIONAL LLC
Locally Represented By:

Visit FCI online at www.FluidComponents.com | FCI is ISO 9001 and AS9100 Certified

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

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

FCI Measurement and Control Technology (Beijing) Co., LTD
Room 107, Xianfeng Building II, No.7 Kaituo Road, Shangdi IT Industry Base, Haidian District | Beijing 100085, P. R. China
Phone: 86-10-82782381

