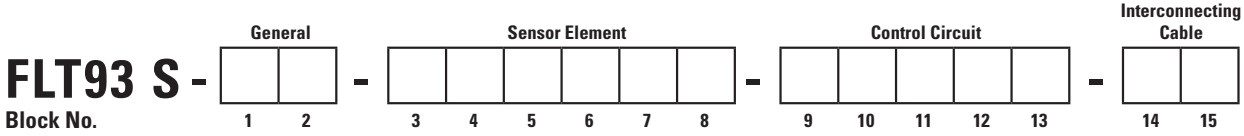


FLT93 S

FlexSwitch™ Inline for Flow, Level & Temperature



INSTRUCTIONS: To order an **FLT93S**, please fill in each numbered block above with the appropriate code from the categories below. Once you have determined all the specifications, contact an FCI representative or FCI directly for price information or additional options not shown. Consult FCI on the cost of special data and documentation. Final acceptance of the part number is subject to FCI's approval.

Agency Approval (Block 1)	Code
Not required	0
Factory Mutual (FM)	1
Factory Mutual (FM) (T4 rated) ¹	2
ATEX II 2 GD per ATEX Directive 94/9/EC, EEx d IIC T4, CE Mark	3
CSA	4
CSA (T4 rated) ¹	5
IEC ¹⁶ Ex d IIC	6
Other	*
Identification Tag ² (Block 2)	Code
Mylar	A
316L Stainless steel	B
Agency approved, customer specified	W
Other	*
Process Temperature (Block 3)	Code
-40° to 350° F [-40° to 177° C]	1
-100° to 500° F ⁴ [-73° to 260° C]	2
-100° to 850° F ^{3,4} [-73° to 454° C]	3
All Welded Material of Construction (Block 4)	Code
316L Stainless steel	A
316L Stainless steel Electro-polish	B
Hastelloy C	C
Monel 400 ²⁵	D
Titanium grade 2 ²⁵	E
Agency approved, customer specified	W
Other	*

Process Connection (Block 5)	Code
3/4 inch Male NPT ⁵	1
1 inch Male NPT	2
1 inch Male BSPT ⁶	3
Flanged	4
Retractable Packing Gland with Graphite Packing Material ²⁶	
<i>Low pressure to 50 psig [3.5 bar(g)]</i>	
1 1/4 inch Male NPT	5
Flanged	6
<i>Medium pressure to 500 psig [35 bar(g)]</i>	
1 1/4 inch Male NPT	7
Flanged	8
Compression Fitting	
<i>Teflon ferrule ²³ to 150 psig [10 bar(g)] and 200° F [93° C]</i>	
3/4 inch Male NPT	C
Flanged	G
<i>Metal ferrule ²³ to 250 psig [17 bar(g)] and 500° F [260° C]</i>	
3/4 inch Male NPT	H
Flanged	J
Agency approved, customer specified	W
Other	*
Flange Size ⁸ (Block 6)	Code
Not required	0
1-1/2 inch Flange ⁹	
150 lb Carbon steel ¹⁰	A
150 lb per Block 4	B
300 lb Carbon steel ¹⁰	C
300 lb per Block 4	D
2 inch Flange ⁹	
150 lb Carbon steel ¹⁰	E
150 lb per Block 4	F
300 lb Carbon steel ¹⁰	G
300 lb per Block 4	H
DIN DN40 Form C Flange	
#PN40, 316L stainless steel	4
DIN DN50 Form C Flange	
#PN16, 316L stainless steel	5
#PN40, 316L stainless steel	6
Flat duct stainless steel flange with 3/4 inch FNPT	J
Agency approved, customer specified ¹¹	W
Other	*

Insertion Length (Block 7)	Code
1.2 inch [30 mm] ¹²	1
2 inch [51 mm]	2
4 inch [102 mm]	3
6 inch [152 mm]	4
9 inch [229 mm]	5
12 inch [305 mm]	6
18 inch [457 mm]	7
Agency approved, customer specified ¹³	W
Local Enclosure ¹⁴ (Block 8)	Code
Sensor element only with 6 inch [152 mm], Kapton wire pigtails, no enclosure	A
Sensor element only with cable pigtail, no enclosure ¹⁵	B
Note maximum cable temp: PVC: 190° F [90° C] Teflon: 300° F [150° C]	
Aluminum; NEMA Type 4X (IP66) and hazardous locations Groups B, C, D, E, F, G and EEx d IIC; 1 x 1" NPT entry	C
Aluminum; NEMA Type 4X (IP66) and hazardous locations Groups B, C, D, E, F, G and EEx d IIC; 2 x 3/4" NPT entries	D
316 stainless steel; NEMA Type 4X (IP66) and hazardous locations Groups B, C, D, E, F, G and EEx d IIC; 1 x 1" NPT entry	E
Agency approved, customer specified	W
Other	*
Configuration ²⁴ (Block 9)	Code
Socket mount, single channel, dual alarm with epoxy sealed 6 amp at 115 Vac relay contacts	1
Hermetically sealed 0.5 amp at 115 Vac relay gold contacts	2
Rack mount, single channel, dual alarm with epoxy sealed 6 amp at 115 Vac relay contacts ¹⁷	3
Agency approved, customer specified	W
Other	*
Alarm No. 1: Application ¹⁸ (Block 10)	Code
For Flow Service	
Gas	A
Liquid	B
For Level Service	
Wet/Dry	C
Interface (wet/wet)	D
For Temperature Service	
Temperature	E

Alarm No. 2: Application ¹⁸ (Block 11)	Code
Not required	0
For Flow Service	
Gas	A
Liquid	B
For Level Service	
Wet/Dry	C
Interface (wet/wet)	D
For Temperature Service	
Temperature	E
Application-Specific Setup & Calibration ¹⁹ (Block 12)	Code
Not required	0
Jumper selection only	1
Jumper selection and adjustment of 1 alarm setpoint in Air or Water	3
Jumper selection and adjustment of 2 alarm setpoint in Air or Water	4
Jumper selection, Air flow curve from 0 to 120 sfps [36.6 mps] and adjustment of 2 alarm setpoints	8
Jumper selection, Water flow curve from 0 to 3 fps [0.91 mps] and adjustment of 2 alarm setpoints	9
Agency approved, customer specified ^{18, 20}	W
Remote Enclosure (Block 13)	Code
Not required	0
Aluminum; NEMA Type 4 (IP66) and hazardous locations Groups C, D, E, F, G with opposing 2 x 1" NPT entries	A
Aluminum; NEMA Type 4X (IP66) and hazardous locations Groups B, C, D, E, F, G and EEx d IIC; 2 x 1" NPT entries (not recommended for cable gland installation)	B
Aluminum; NEMA Type 4X (IP66) and hazardous locations Groups B, C, D, E, F, G and EEx d IIC; 3 x 3/4" entries	G
316 stainless steel; NEMA Type 4X (IP66) and hazardous locations Groups B, C, D, E, F, G and EEx d IIC; 2 x 1" NPT entries (not recommended for cable gland installation)	C
Carbon steel; NEMA Type 4	D
Fiberglass; NEMA Type 4X	E
No enclosure; panel mounted control circuit ²¹	F
Agency approved, customer specified	W
Other	*

Cable Jacket (Block 14)	Code
Not required	0
PVC	1
190° F [90° C] maximum temperature	
Teflon	2
300° F [150° C] maximum temperature	
Agency approved, customer specified	W
Cable Length (Block 15)	Code
Not required	0
10 ft [3 m]	1
25 ft [7.5 m]	2
50 ft [15 m]	3
Agency approved, customer specified ²²	W

- Notes**
- ◀ Shorter manufacturing lead times are available when this is selected in every option.
 - * Voids Agency Approvals. Contact FCI.
 - 1. Field selectable heater power is disabled.
 - 2. Customer specified tag data field maximum 3 lines by 20 characters/line and must be supplied at time of order. All other require a "W" or "*" in Block 2.
 - 3. Control circuit must be remote mounted.
 - 4. Not available with cable pigtail.
 - 5. 1.2 inch length is available for all materials of construction. 2 inch and longer lengths are only available in stainless steel. 1 inch male NPT must be selected for 2 inch or greater lengths and exotic materials of construction.
 - 6. Available in 316L stainless steel only.
 - 7. Not available with agency approvals.
 - 8. ANSI flanges are photographic serrated, DIN are Form C per DIN 2526/Form B1 per EN DIN1092-01.
 - 9. Flanged material will be identical to that selected in Block 4, Codes B, D, F and H.
 - 10. Carbon steel flange available with 316L stainless steel sensor construction only.
 - 11. Customer specified flange shall be per ANSI or DIN specifications and must be 1 1/2 inches [DN40] or larger.
 - 12. For use only in a 3/4 inch tee.
 - 13. Maximum length is 120 inches.
 - 14. Local enclosure required for agency approval. Metal enclosure required for CE.
 - 15. Select cable jacket/length in Blocks 14-15.
 - 16. IEC approval: 350° F [177° C] maximum, Block 3 must be Code 1. Local enclosure, Block 8, must be Code C, D or E. Remote enclosure, Block 13, must be Code 0, B, G or C.
 - 17. Without 19" rack or mating connector. Also available in dual channel version.
 - 18. Refer to application matrix on Application Data Sheet for valid alarm combinations.
 - 19. For all codes except "0" a completed FLT application data sheet must accompany the order.
 - 20. Customer specified calibration shall not exceed temperature and pressure limitations of the FLT93 specifications.
 - 21. Remote enclosure required for FM and CSA.
 - 22. Wire resistance must be less than 1.5 ohms.
 - 23. Material will match Codes A or C selected in Block 4. Metal ferrule permanently locks after tightening the compression fitting.
 - 24. Factory default setting for input power is 115 Vac for FM, and 230 Vac for all other agency approvals in Block 1.
 - 25. These materials of construction are not available with high temperature selection in Block 3, Code 3.
 - 26. Teflon packaging material must be ordered when process media is Ozone, Chlorine or Bromine.
 - 27. T4 rated at 140°F [60°C]

