

Flow-Alert™ Flow Switches

For Liquids / Air and Other Compressed Gases

- Automatically signals alarm if flow is too high or too low
- Automatically opens or closes electrical circuits
- Triggers warning lights, buzzers and other devices
- Shuts down pumps and/or other equipment to protect your operation against permanent damage
- Available from 1/4" to 1-1/2" sizes in Aluminum, Brass and Stainless
- Installs in any position
- Easy to Read Linear Scale
- No Flow Straighteners or Special Piping Requirements
- Insensitive to Shock and Vibration
- Special Scales Available



SPECIFICATIONS:

MATERIALS:

2024 - T351 Anodized aluminum body, piston and cone

C360 Brass body, piston and cone

T303 Stainless body, 2024 - T351 Anodized aluminum piston and cone (Petroleum-based meters)

T303 Stainless body, C360 Brass piston and cone (Water meters)

T316 Stainless body, piston and cone

PETROLEUM (Oil) COMMON PARTS:

Spider Plate: T316 SS

Spring: T302 SS

Fasteners: T303 SS

Pressure Seals: Viton®

Guard: Polycarbonate

Retaining Ring: SAE 1070/1090 Carbon Steel

Retaining Spring: SAE 1070/1090 Carbon Steel

Indicator and Internal Magnet: PPS / Ceramic

Guard Seal: Urethane cellular foam

Scale Support: 6063 - T6 Aluminum

PHOSPHATE ESTER (PE) COMMON PARTS:

Spider Plate: T316 SS

Spring: T302 SS

Fasteners: T303 SS

Pressure Seals: EPR

Guard: Polycarbonate

Retaining Ring: SAE 1070/1090 Carbon Steel

Retaining Spring: SAE 1070/1090 Carbon Steel

Indicator and Internal Magnet: PPS / Ceramic

Guard Seal: Urethane cellular foam

Scale Support: 6063 - T6 Aluminum

WATER-BASED (WBF), WATER, AIR COMMON PARTS:

Spider Plate: T316 SS

Spring: T302 SS

Fasteners: T303 SS

Pressure Seals: Viton®

Guard: Polycarbonate

Retaining Ring: T316 SS

Retaining Spring: T316 SS

Indicator and Internal Magnet: PPS / Ceramic

Guard Seal: Urethane cellular foam

Scale Support: 6063 - T6 Aluminum

API OIL / AIR / CAUSTIC and CORROSIVE LIQUIDS and GASES:

Spider Plate: T316 SS

Spring: T316 SS

Fasteners: T316 SS

Pressure Seals: Viton®

Guard: Polycarbonate

Retaining Ring: T316 SS

Retaining Spring: T316 SS

Indicator and Internal Magnet: PPS / Ceramic

Guard Seal: Urethane cellular foam

Scale Support: 6063 - T6 Aluminum

THREADS: SAE J1926/1, NPTF ANSI B2.2, BSPP ISO1179

TEMPERATURE RANGE: -20 to 240°F (-29 to 116°C)

PRESSURE RATING:

Aluminum / Brass Operating:

Liquids - 3,500 psi/241 bar max. with a 3:1 safety factor.

Gases - 1,000 psi/69 bar max. with a 10:1 safety factor.

Fatigue Rating: per NFPA T2.6.1R1-1991, (for details see page 7)

Stainless Steel Operating:

Liquids - 6,000 psi/414 bar max. with a 3:1 safety factor.

Gases - 1,500 psi/103 bar max. with a 10:1 safety factor.

Fatigue Rating: per NFPA T2.6.1R1-1991, (for details see page 7)

ACCURACY: ± 2% of full scale reading

REPEATABILITY: ± 1%

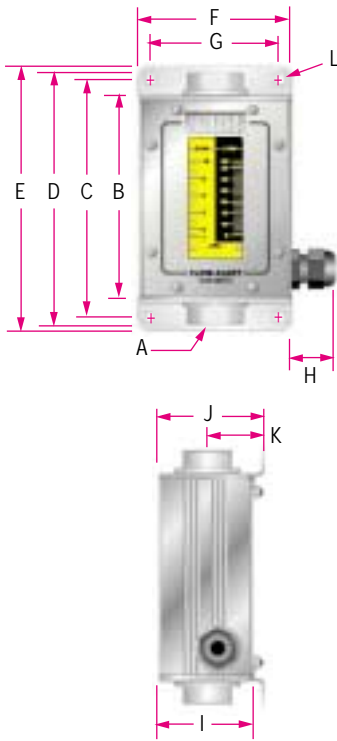
PRESSURE DROP REFERENCE TABLE:

	FLUID TYPE							
	Oil	PE	WBF	Water	API Oil	Caustic & Corrosive Liquids	Air/Caustic & Corrosive Gases	Air
50% / 100% Pressure Drop	p. 10	p. 16	p. 22	p. 28	p. 32	p. 32	p. 34	p. 36
Pressure Drop Chart	p. 51	p. 52	p. 53	p. 54	p. 55	p. 54	p. 55	p. 56

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DIMENSIONS:



A	B	C	D	E	F	G	H	I	J	K	L
NOMINAL PORT SIZE	LENGTH in (mm)	LENGTH in (mm)	LENGTH in (mm)	LENGTH in (mm)	WIDTH in (mm)	WIDTH in (mm)	LENGTH in (mm)	DEPTH in (mm)	DEPTH in (mm)	OFFSET in (mm)	HOLE DIA. in (mm)
1/4 (SAE 6)	5.41 (138)	6.41 (163)	6.58 (167)	7.11 (181)	3.93 (100)	3.23 (82)	1.00 (25)	2.38 (61)	2.94 (75)	1.70 (43)	.28 (7)
1/2 (SAE10)	5.41 (138)	6.41 (163)	6.58 (167)	7.11 (181)	3.93 (100)	3.23 (82)	1.00 (25)	2.38 (61)	2.94 (75)	1.70 (43)	.28 (7)
3/4 (SAE 12)	6.04 (154)	7.04 (179)	7.19 (183)	7.74 (197)	4.30 (109)	3.60 (92)	1.00 (25)	2.77 (70)	3.33 (85)	1.90 (48)	.28 (7)
1 (SAE 16)	6.04 (154)	7.04 (179)	7.19 (183)	7.74 (197)	4.30 (109)	3.60 (92)	1.00 (25)	2.77 (70)	3.33 (85)	1.90 (48)	.28 (7)
1-1/4 (SAE 20)	10.65 (271)	11.65 (296)	12.18 (310)	12.35 (314)	5.54 (141)	4.84 (123)	1.00 (25)	4.90 (102)	4.56 (116)	2.40 (61)	.28 (7)
1-1/2 (SAE 24)	10.65 (271)	11.65 (296)	12.18 (310)	12.35 (314)	5.54 (141)	4.84 (123)	1.00 (25)	4.90 (102)	4.56 (116)	2.40 (61)	.28 (7)

ENCLOSURE:

Material: Anodized aluminum with polycarbonate lens/cover.

Seals: Urethane cellular foam gasket between enclosure and lens/cover.

Viton O-rings between enclosure and flow meter body.

Connection: Pig-tail conductor (standard) with water-tight strain relief.

Other connections are available – consult factory for details.

Fastener: T303 SS

Rating: NEMA 12 & 13 (IP65)

ELECTRICAL CIRCUITRY:

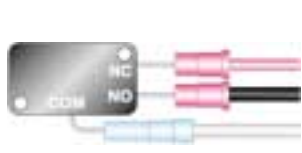
Adjustable Flow-Alert™ signal: single (1) or double (2) switch, pre-wired single-pole, double-throw (SPDT) UL recognized and CSA certified with high or low flow limit setting, adjustable over the entire flow measuring range. Other switches are available – consult factory for details.

10A @ 250 VAC maximum, 0.5A @ 125 VDC maximum.

All Flow-Alert sizes (1/4 to 1-1/2 inch series) are offered in single (1) switch or double (2) switch models.

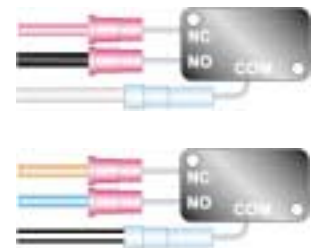
The single switch model is supplied with a 34" length of 4-wire #18 AWG type jacketed cable.

The double switch model is supplied with an 18" length of 7-wire #16 AWG type jacketed cable, color coded as follows: Optional 8 ft. and 15 ft. cables are available – consult factory for details.



One (1) Switch 4 wire cable
Red: Normally Closed (NC)
Black: Normally Open (NO)
White: Common (comm.)
Green: Ground

Two (2) Switch 7-wire cable
Switch #1
Red: Normally Closed (NC)
Black: Normally Open (NO)
White: Common (comm.)
Switch #2
Orange: Normally Closed (NC)
Blue: Normally Open (NO)
White/Black: Common (comm.)
Green: Ground



Note: Weights for all sizes can be found on page 57.



FLOW-ALERT OIL
Ordering Info **43**



FLOW-ALERT PE
Ordering Info **44**



FLOW-ALERT WBF
Ordering Info **45**



FLOW-ALERT WATER
Ordering Info **46**



FLOW-ALERT API OIL and
Caustic and Corrosive Liquids
Ordering Info **47**



FLOW-ALERT AIR and
Caustic and Corrosive Gases
Ordering Info **48**



FLOW-ALERT AIR
Ordering Info **49**