Flow-Alert™ Flow Switches (Reed Switch)

For Liquids / Air and Other Compressed Gases

- No mechanical linkage
- 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
- Easier-to-read linear scale
- No flow straighteners or special piping requirements
- Relatively 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 (Oil, PE, WBF, & Air 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 **Retaining Ring:** SAE 1070/1090 Carbon Steel
Spring: T302 SS **Retaining Spring:** SAE 1070/1090 Carbon Steel
Fasteners: T303 SS **Indicator:** T400 Series Stainless
Pressure Seals: Viton® **Internal Magnet:** Teflon® Coated Alnico 8
Lens: Polycarbonate **Switch Carrier:** Aluminum
Enclosure Seal: Silicone gasket **Scale Support:** 6063 - T6 Aluminum

PHOSPHATE ESTER (PE) COMMON PARTS:
Spider Plate: T316 SS **Retaining Ring:** SAE 1070/1090 Carbon Steel
Spring: T302 SS **Retaining Spring:** SAE 1070/1090 Carbon Steel
Fasteners: T303 SS **Indicator:** T400 Series Stainless
Pressure Seals: EPR **Internal Magnet:** Teflon® Coated Alnico 8
Lens: Polycarbonate **Switch Carrier:** Aluminum
Enclosure Seal: Silicone gasket **Scale Support:** 6063 - T6 Aluminum

WATER-BASED (WBF), WATER, AIR COMMON PARTS:
Spider Plate: T316 SS **Retaining Ring:** T316 SS
Spring: T302 SS **Retaining Spring:** T316 SS
Fasteners: T303 SS **Indicator:** T400 Series Stainless
Pressure Seals: Viton® **Internal Magnet:** Teflon® Coated Alnico 8
Lens: Polycarbonate **Switch Carrier:** Aluminum
Enclosure Seal: Silicone gasket **Scale Support:** 6063 - T6 Aluminum

API OIL / AIR / CAUSTIC and CORROSIVE LIQUIDS and GASES:
Spider Plate: T316 SS **Retaining Ring:** T316 SS
Spring: T316 SS **Retaining Spring:** T316 SS
Fasteners: T316 SS **Indicator:** T400 Series Stainless
Pressure Seals: Viton® **Internal Magnet:** Teflon® Coated Alnico 8
Lens: Polycarbonate **Switch Carrier:** Aluminum
Enclosure Seal: Silicone gasket **Scale Support:** 6063 - T6 Aluminum

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

TEMPERATURE RANGE: -20 to 240 °F (-20 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.
For High Cycle Applications: see page 7
Stainless Steel Operating:
Liquids - 6,000 psi/414 bar max. (5,000 psi/345 bar max. for 3/4" to 1-1/2" series) with a 3:1 safety factor.
Gases - 1,500 psi/103 bar max. with a 10:1 safety factor.
For High Cycle Applications: see page 7

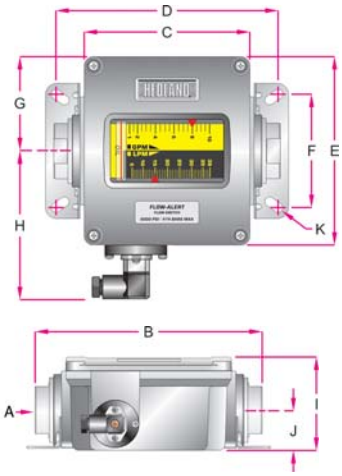
ACCURACY: ±2% of full scale **REPEATABILITY:** ±1%

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. 55	p. 56	p. 57	p. 58	p. 59	p. 58	p. 59	p. 60

Flow-Alert™ Flow Switches (Reed Switch)

For Liquids / Air and Other Compressed Gases

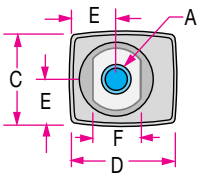


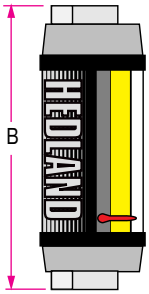
DIMENSIONS:

A	B	C	D	E	F	G	H	I	J	K
NOMINAL PORT SIZE	LENGTH in (mm)	LENGTH in (mm)	LENGTH in (mm)	WIDTH in (mm)	WIDTH in (mm)	WIDTH in (mm)	WIDTH in (mm)	DEPTH in (mm)	OFFSET in (mm)	HOLE DIA. in (mm)
1/4 (SAE 6)	6.6 (168)	5.27 (134)	6.41 (163)	6.00 (152)	3.23 (82)	3.00 (76)	4.20 (107)	2.94 (75)	1.51 (38)	.31 (8)
1/2 (SAE 10)	6.6 (168)	5.27 (134)	6.41 (163)	6.00 (152)	3.23 (82)	3.00 (76)	4.20 (107)	2.94 (75)	1.51 (38)	.31 (8)
3/4 (SAE 12)	7.2 (183)	5.27 (134)	7.04 (179)	6.00 (152)	3.60 (91)	3.00 (76)	4.20 (107)	2.94 (75)	1.27 (32)	.31 (8)
1 (SAE 16)	7.2 (183)	5.27 (134)	7.04 (179)	6.00 (152)	3.60 (91)	3.00 (76)	4.20 (107)	2.94 (75)	1.27 (32)	.31 (8)
1-1/4 (SAE 20)	12.2 (310)	10.68 (271)	11.65 (296)	7.63 (194)	4.84 (123)	3.82 (97)	5.02 (128)	4.50 (114)	2.20 (56)	.31 (8)
1-1/2 (SAE 24)	12.2 (310)	10.68 (271)	11.65 (296)	7.63 (194)	4.84 (123)	3.82 (97)	5.02 (128)	4.50 (114)	2.20 (56)	.31 (8)

DIMENSIONS:

A	B	C	D	E	F
NOMINAL PORT SIZE	LENGTH in (mm)	WIDTH in (mm)	DEPTH in (mm)	OFFSET in (mm)	FLATS in (mm)
1/4 (SAE 6)	4.8 (122)	1.68 (43)	1.90 (48)	.84 (21)	.88 (22)

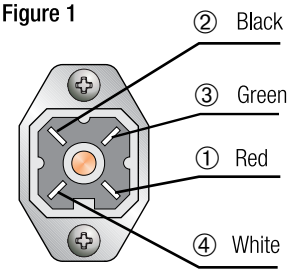




ENCLOSURE:

Material: Anodized and epoxy powder-coated aluminum with polycarbonate lens.
Seals: Silicone gasket between enclosure and lens.
Viton® O-rings between enclosure and flow meter body.
Connection: 4-pin (Protection Class IP65)
Fastener: T303 SS
Rating: NEMA 12 & 13 (IP65)

Figure 1

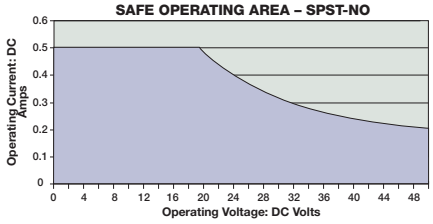


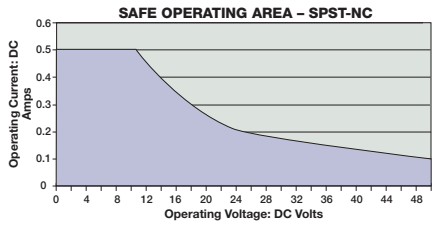
Electrical Circuitry:
The flow switch is supplied with 15 feet of shielded, 4-wire #22 AWG PVC jacketed cable, color coded as follows: ① Red, ② Black for single (1) Reed Switch, and ③ Green, ④ White for double (2) Reed Switch.

ELECTRICAL SPECIFICATIONS:

Adjustable Flow-Alert™ signal: single (1) or double (2) reed switch, pre-wired single-pole, single-throw (SPST-NO) normally open; or single-pole, single-throw (SPST-NC) normally closed. UL recognized and CSA certified with high or low flow limit setting, adjustable over the entire flow measuring range.

Contact Form	SPST-NO	SPST-NC
ELECTRICAL SPECIFICATIONS		
Contact Rating	10 Watts Max	5 Watts Max
Voltage, Switching	50 Vdc Max	50 Vdc Max
Current (resistive), Switching	0.500 A Max	0.500 A Max
OPERATING SPECIFICATIONS		
Contact Resistance, Initial	0.100 Ω Max	0.100 Ω Max
Operating Temperature	-20 to 240 °F (-20 to 116 °C)	-20 to 240 °F (-20 to 116 °C)





NOTE: Weights for all sizes can be found on page 73.


FLOW-ALERT OIL
Ordering Info 46


FLOW-ALERT PE
Ordering Info 47


FLOW-ALERT WBF
Ordering Info 48


FLOW-ALERT WATER
Ordering Info 49


FLOW-ALERT API OIL and Caustic and Corrosive Liquids
Ordering Info 50


FLOW-ALERT AIR and Caustic and Corrosive Gases
Ordering Info 51


FLOW-ALERT AIR
Ordering Info 52

Flow-Alert™ Flow Switches and Flow Transmitters
For Water Fluids

ORDERING INFORMATION:

NOMINAL PORT SIZE	FLOW RANGE		MODEL NUMBER *(see example below)*			MATERIAL		OPTIONS		
	GPM	LPM	SAE	NPTF	BSPP	BRASS 3500 PSI	STAINLESS	Flow-Alert 1 SWITCH / 2 SWITCH	Flow-Alert REED SWITCH	MULTIPLE OUTPUT SENSOR
1/4 SAE	.02 - 0.2 .05 - 0.5	0.1 - 0.75 0.2 - 1.9	H204 ✱ - 002 - † H204 ✱ - 005 - †	H205 ✱ - 002 - † H205 ✱ - 005 - †	H206 ✱ - 002 - † H206 ✱ - 005 - †	B	6000 PSI S	Not Available	SEE OPTIONS BELOW	Not Available
1/4 SAE 6	0.1 - 1.0 0.2 - 2.0	0.5 - 3.75 1 - 7.5	H204 ✱ - 010 - † H204 ✱ - 020 - †	H205 ✱ - 010 - † H205 ✱ - 020 - †	H206 ✱ - 010 - † H206 ✱ - 020 - †	B	6000 PSI S	F1/F2		MR
1/2 SAE 10	0.1 - 1.0 0.2 - 2.0 0.5 - 5.0 1 - 10 1 - 15	0.5 - 3.75 1 - 7.5 2 - 19 5 - 38 4 - 56	H604 ✱ - 001 - † H604 ✱ - 002 - † H604 ✱ - 005 - † H604 ✱ - 010 - † H604 ✱ - 015 - †	H605 ✱ - 001 - † H605 ✱ - 002 - † H605 ✱ - 005 - † H605 ✱ - 010 - † H605 ✱ - 015 - †	H606 ✱ - 001 - † H606 ✱ - 002 - † H606 ✱ - 005 - † H606 ✱ - 010 - † H606 ✱ - 015 - †	B	6000 PSI S	F1/F2		MR
3/4 SAE 12	0.2 - 2.0 0.5 - 5.0 1 - 10 2 - 20 3 - 30	1 - 7.5 2 - 19 5 - 38 10 - 76 10 - 115	H704 ✱ - 002 - † H704 ✱ - 005 - † H704 ✱ - 010 - † H704 ✱ - 020 - † H704 ✱ - 030 - †	H705 ✱ - 002 - † H705 ✱ - 005 - † H705 ✱ - 010 - † H705 ✱ - 020 - † H705 ✱ - 030 - †	H706 ✱ - 002 - † H706 ✱ - 005 - † H706 ✱ - 010 - † H706 ✱ - 020 - † H706 ✱ - 030 - †	B	5000 PSI S	F1/F2		MR
1 SAE 16	0.2 - 2.0 0.5 - 5.0 1 - 10 2 - 20 3 - 30 4 - 40 5 - 50	1 - 7.5 2 - 19 5 - 38 10 - 76 10 - 115 15 - 150 20 - 190	H754 ✱ - 002 - † H754 ✱ - 005 - † H754 ✱ - 010 - † H754 ✱ - 020 - † H754 ✱ - 030 - † H754 ✱ - 040 - † H754 ✱ - 050 - †	H755 ✱ - 002 - † H755 ✱ - 005 - † H755 ✱ - 010 - † H755 ✱ - 020 - † H755 ✱ - 030 - † H755 ✱ - 040 - † H755 ✱ - 050 - †	H756 ✱ - 002 - † H756 ✱ - 005 - † H756 ✱ - 010 - † H756 ✱ - 020 - † H756 ✱ - 030 - † H756 ✱ - 040 - † H756 ✱ - 050 - †	B	5000 PSI S	F1/F2		MR
1-1/4 SAE 20	3 - 30 5 - 50 10 - 75 10 - 100 10 - 150	10 - 110 20 - 190 40 - 280 50 - 380 50 - 560	H804 ✱ - 030 - † H804 ✱ - 050 - † H804 ✱ - 075 - † H804 ✱ - 100 - † H804 ✱ - 150 - †	H805 ✱ - 030 - † H805 ✱ - 050 - † H805 ✱ - 075 - † H805 ✱ - 100 - † H805 ✱ - 150 - †	H806 ✱ - 030 - † H806 ✱ - 050 - † H806 ✱ - 075 - † H806 ✱ - 100 - † H806 ✱ - 150 - †	B	5000 PSI S	F1/F2		MR
1-1/2 SAE 24	3 - 30 5 - 50 10 - 75 10 - 100 10 - 150	10 - 110 20 - 190 40 - 280 50 - 380 50 - 560	H854 ✱ - 030 - † H854 ✱ - 050 - † H854 ✱ - 075 - † H854 ✱ - 100 - † H854 ✱ - 150 - †	H855 ✱ - 030 - † H855 ✱ - 050 - † H855 ✱ - 075 - † H855 ✱ - 100 - † H855 ✱ - 150 - †	H856 ✱ - 030 - † H856 ✱ - 050 - † H856 ✱ - 075 - † H856 ✱ - 100 - † H856 ✱ - 150 - †	B	5000 PSI S	F1/F2		MR

(example) **H 705 B - 030 - F1** or **F2**

Flow-Alert Flow Switches
F1 = Single Switch
F2 = Double Switch

(example) **H 701 A - 030 - RS1NO**

Flow-Alert Reed Switches
Options:
RS1NO (reed switch one (1) normally open)
RS2NO (reed switch two (2) normally open)
RS1NC (reed switch one (1) normally closed)
RS2NC (reed switch two (2) normally closed)

(example) **H 705 B - 030 - MR**

Multiple Output Flow Sensor
3 Standard field selectable outputs
0-5 VDC
0-10 VDC
4-20 mA
} Flow Transmitter is factory-calibrated to provide 4 mA (0 VDC) at zero flow and 20 mA (5/10 VDC) at full flow. Optional 5-point calibration certificate available (see Price and Availability Digest for details).

NOTE: 1/4" liquid meters for .02-0.2 and .05-0.5 GPM ranges available in strap-on design for RS1NO and RS1NC only.

NOTE: For 50% and 100% flow/pressure drop information, see page 28. For detailed flow/pressure drop charts, see page 58.