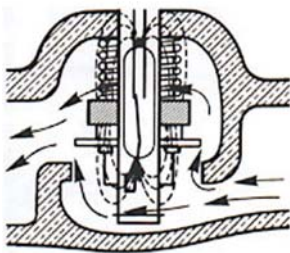


**CLARK****Series 1100 Bronze & Stainless Steel Flow Switches***3/4" to 3" Pipe Size***DESCRIPTION**

Series 1100 flow switches are manufactured to exacting standards and provide accurate flow detection for most applications. Product inspection involves calibrated tools and gages traceable to National Bureau of Standards.

The flow switches are broadly used in machine tools, HVAC equipment and any process where the materials of construction and function are suitable.

Models are offered in bronze and 316 stainless steel housings with NPT threading. Optionally BSPT, SAE, Silver Braze & Socket connections are available.

**FLOW SWITCH OPERATION**

A magnet equipped shuttle is displaced at the proper calibrated flow of liquid to actuate the hermetically sealed reed switch. At flow rates under the set point, clearance is provided for the liquid to continue to flow.

When flow rates exceed the

set point the shuttle or piston is displaced even further to reveal a smooth, clear opening for a low pressure drop.

**SPECIFICATIONS**

**Pipe Sizes:** 3/4", 2", 1 1/4", 1 1/2", 2", 2 1/2", 3"

**End Connections:** NPT Standard; BSPT, SAE, Silver Braze, Socket & other available

**Housing Material:** Bronze or 316 SS, see models table

**Shuttle:** Teflon®

**Spring:** 316 SS

**Magnet:** Ceramic Ring Magnet

**O-Ring:** Viton "A"

**Wire:** 18 AWG Polymeric 24" Long

**Reed Switch:** 20 VA SPDT

**Operating Temperature:** -20 to 300°F

**Operating Pressure:** 400 PSI

**Proof Pressure:** 800 PSI

**Burst Strength:** 1200 PSI

**Set Point Accuracy:** ±10% Max

**Set Point Difference:** ±10%

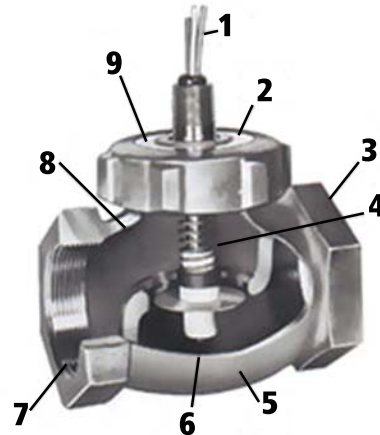
**Repeatability:** 1% Max. Deviation

Notes:

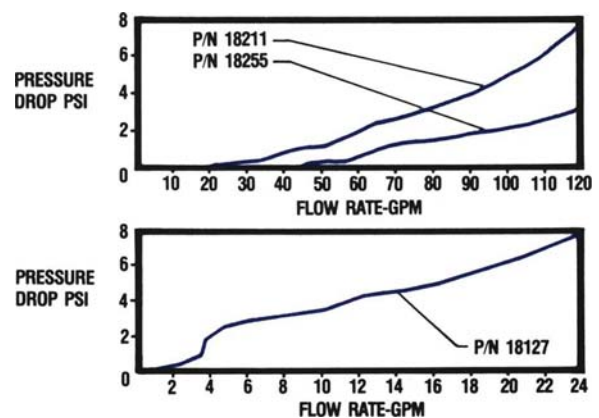
-Standard flow calibration is in water@70°F. Calibrated on increasing flow.

-Strain Reliefs are standard

-Call with special requirements including materials, electrical ratings, high temperature, port connections, special cable requirements etc.

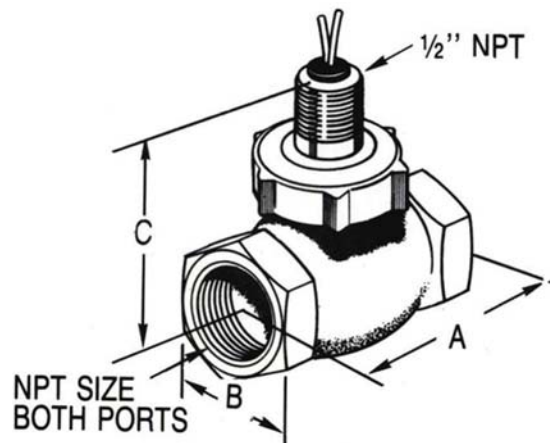


1. Switch capsule.
2. Salt spray and accelerated life tested. Naval Sea Systems Command.
3. 25% heavier wall thickness, published burst strength is derated.
4. Welding: Certified welders under requalification system, performed in low hydrogen environment; process schedules revision controlled. Inspection 100% bubble tight, hydrostatic, fluorescent penetrate.
5. True globe shaped housing yields lower pressure drop and minimizes turbulence
6. High pressure SST welded end plugs.
7. Machining in-house, special modifications available (i.e., NPT, BSPT, SAE, Silver Braze, Socket, etc.). Inspection using calibrated tools and gages traceable to National Bureau of Standards underrecalibration systems.
8. Shock and vibration approved. Listed QPL 16032 shipboard alarm systems.
9. Serialization, documentation retained on purchased materials, processes, inspection, etc. Operational Q.C. systems and manual, MIL I 45208 MIL STD 45662 . Raw materials inventoried in a controlled and segregated department under stock rotation program. Call-outs presented are typical to their respective models.

**TYPICAL PRESSURE DROP VS FLOW**

## DIMENSIONS

Dimensions			
Size NPT	Length A Inches	Hex B Inches	H Height Inches
3/4"	2-7/8	1-3/8	2-3/4
1"	3-1/4	1-25/32	3
1 1/4"	4	3-3/16	3-3/16
1 1/2"	4-1/2	2-1/2	3-1/2
2"	5-3/8	3-3/32	4
2-1/2"	6-5/16	3-5/8	4-1/2
3"	7-3/8	4-3/8	5-5/32



## ORDERING INFORMATION

Model	Size NPT	Housing Material	Flow Setting GPM
1100-18100	3/4"	Bronze	0.5
1100-18101	3/4"	Bronze	1.0
1100-18102	3/4"	Bronze	2.0
1100-18103	3/4"	Bronze	3.0
1100-18104	3/4"	Bronze	4.0
1100-18105	3/4"	Bronze	5.0
1100-18106	3/4"	Bronze	6.0
1100-18107	3/4"	Bronze	8.0
1100-18127	1"	Bronze	0.5
1100-18128	1"	Bronze	1.0
1100-18129	1"	Bronze	2.0
1100-18130	1"	Bronze	3.0
1100-18131	1"	Bronze	4.0
1100-18132	1"	Bronze	5.0
1100-18133	1"	Bronze	6.0
1100-18134	1"	Bronze	8.0
1100-18140	1"	316 SS	0.5
1100-18141	1"	316 SS	1.0
1100-18142	1"	316 SS	2.0
1100-18143	1"	316 SS	3.0
1100-18144	1"	316 SS	4.0
1100-18145	1"	316 SS	5.0
1100-18146	1"	316 SS	6.0
1100-18147	1"	316 SS	8.0
1100-18153	1-1/4"	Bronze	1.0
1100-18154	1-1/4"	Bronze	2.0
1100-18155	1-1/4"	Bronze	4.0
1100-18156	1-1/4"	Bronze	6.0
1100-18157	1-1/4"	Bronze	8.0
1100-18158	1-1/4"	Bronze	10
1100-18159	1-1/4"	Bronze	12
1100-18160	1-1/4"	Bronze	16
1100-18161	1-1/4"	Bronze	20
1100-18183	1-1/2"	Bronze	1.5
1100-18184	1-1/2"	Bronze	3
1100-18185	1-1/2"	Bronze	5
1100-18186	1-1/2"	Bronze	7.5
1100-18187	1-1/2"	Bronze	10
1100-18188	1-1/2"	Bronze	15

Model	Size NPT	Housing Material	Flow Setting GPM
1100-18189	1-1/2"	Bronze	20
1100-18190	1-1/2"	Bronze	30
1100-18197	1-1/2"	316 SS	1.5
1100-18198	1-1/2"	316 SS	3
1100-18199	1-1/2"	316 SS	5
1100-18200	1-1/2"	316 SS	7.5
1100-18201	1-1/2"	316 SS	10
1100-18202	1-1/2"	316 SS	15
1100-18203	1-1/2"	316 SS	20
1100-18204	1-1/2"	316 SS	30
1100-18211	2"	Bronze	2
1100-18212	2"	Bronze	4
1100-18213	2"	Bronze	5
1100-18214	2"	Bronze	10
1100-18215	2"	Bronze	15
1100-18216	2"	Bronze	26
1100-18217	2"	Bronze	35
1100-18218	2"	Bronze	50
1100-18239	2 1/2"	Bronze	5
1100-18240	2 1/2"	Bronze	10
1100-18241	2 1/2"	Bronze	15
1100-18242	2 1/2"	Bronze	20
1100-18243	2 1/2"	Bronze	25
1100-18244	2 1/2"	Bronze	30
1100-18245	2 1/2"	Bronze	40
1100-18246	2 1/2"	Bronze	50
1100-18247	2 1/2"	Bronze	60
1100-18248	2 1/2"	Bronze	75
1100-18255	3"	Bronze	5
1100-18256	3"	Bronze	15
1100-18257	3"	Bronze	20
1100-18258	3"	Bronze	25
1100-18259	3"	Bronze	30
1100-18260	3"	Bronze	40
1100-18261	3"	Bronze	50
1100-18262	3"	Bronze	60
1100-18263	3"	Bronze	75
1100-18264	3"	Bronze	100