

Piston Flow Switch (Reed Type)

BW1 Series Compact Flow Switch



General Description

BW1 series is a high-performance, reliable piston flow switch, designed for demanding applications. Available in both **metal** and **plastic models**, it provides excellent clog resistance and offers superior flow detection in industrial, HVAC, semiconductor, and other high-pressure or high-reliability fluid systems.

Key Features

- **High Inline Pressure Capability:**
 - **BW1-M:** Up to **1500 PSI** for metal housing models (brass and stainless steel).
 - **BW1-P:** Up to **125 PSI** for plastic housing models (polypropylene).
- **Wide Temperature Range:**
 - **BW1-M:** Operates between **-25°C to +135°C**
 - **BW1-P:** Operates between **-20°C to +100°C**
- **No External Power Required:**

Mechanically actuated reed switch design, offering reliable flow detection without the need for external power.
- **Rugged One-Piece Magnetic PPS Composite Piston:**

Resistant to clogging, making it suitable for high-pressure applications and fluids with higher particulate content.
- **Available in Multiple Housing Materials:**
 - **BW1-M:** Brass or 316 Stainless Steel.
 - **BW1-P:** Glass-reinforced Polypropylene.
- **Flow Settings:**
 - **Range: 0.15 GPM to 2.00 GPM**
 - **Accuracy: ±20% Maximum**



Application

- Industrial Cleaning Equipment
- Semiconductor Cooling Systems
- High-Pressure Lubrication Systems
- Cooling Loop Monitoring
- Hydraulic System Flow Protection
- HVAC Systems
- Intelligent Home Appliances

Environmental & Mechanical Specifications

Item	BW1-M (Metal)	BW1-P (Plastic)
Housing Material	Brass or 316 Stainless Steel	Glass Reinforced Polypropylene
Piston Material	PPS Composite, Epoxy	PPS Composite
Spring Material	316 Stainless Steel	316 Stainless Steel
O-Ring Material	Fluorocarbon Elastomer	Fluorocarbon Elastomer
Max Operating Pressure	1500 PSI (107 bar)	125 PSI (8.6 bar)
Operating Temperature	-25°C to +135°C	-20°C to +100°C
Set Point Accuracy	±20% Maximum	±20% Maximum
Set Point Differential	20% Maximum	20% Maximum
Ingress Protection	IP67 (for models with full enclosure)	No IP rating
Filtration Recommendation	100 Micron Filter Recommended	100 Micron Filter Recommended

Electrical Specifications

Item	Specification
Switch Type	SPST (Single-Pole Single-Throw)
Switch Condition	Normally Open (N.O.) at no flow
Electrical Rating	20 VA for Brass or 316 Stainless Steel models 10 VA for PP models
Electrical Termination	No. 22 AWG polymeric leads, 24" to 26" length

Important Notes:

- 1, Flow settings are calibrated with water at 70°F in horizontal orientation. Consult factory for other fluids.
- 2, Maintain minimum spacing between sensors to avoid magnetic interference.
- 3, A 100-micron filter is recommended for extended service life.



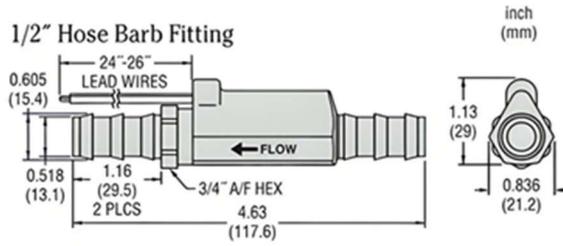
Part Number Naming

BW1 – XXX – X – X

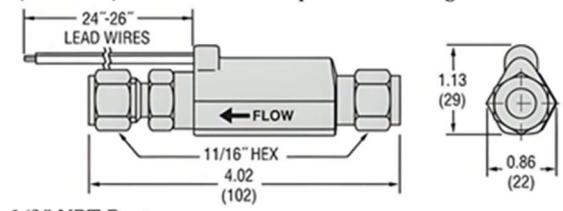
Code	Description
BW1	Piston Series
XXX	Flow Setting
X	Housing Material: B=Brass/ S=Stainless Steel/ P=Plastic
X	Contact Form: A = NO / B = NC / C = Changeover
XXX	Additional customize information

Part Number	Flow Setting (GPM)	Housing Material	Port Type	Max Operating Pressure	Operating Temperature
BW1-025-B-A	0.25	Brass	1/2" NPT Male	1500PSI(103 bar)	-25°C to +135°C
BW1-050-B-A	0.50	Brass	3/8" NPT Male	1500PSI(103 bar)	-25°C to +135°C
BW1-050-P-A	0.50	Plastic	3/8" NPT Male	125PSI(8.6 bar)	-20°C to +100°C
BW1-100-S-A	1.00	316 Stainless Steel	3/8" NPT Male	1500PSI(103 bar)	-25°C to +135°C
BW1-015-S-A	0.15	316 Stainless Steel	1/4" Compression	1500PSI(103 bar)	-25°C to +135°C
BW1-150-S-A	1.50	316 Stainless Steel	3/8" Compression	1500PSI(103 bar)	-25°C to +135°C
BW1-200-S-A	2.00	316 Stainless Steel	1/2" Hose Barb	500PSI(34 bar)	-25°C to +135°C

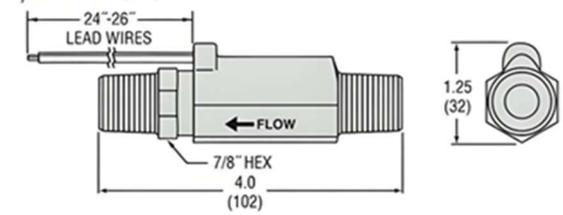
1/2" Hose Barb Fitting



1/4" and 3/8" Tube End Compression Fitting



1/2" NPT Ports



3/8" NPT Ports

