



M-62

Fixed setpoint flow switch with in-line flow and flare fittings

Features

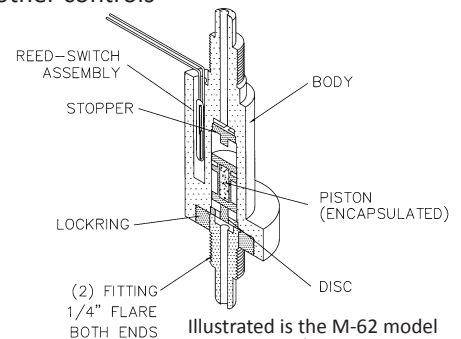
- For corrosive and non-corrosive liquids or gases
- Senses increasing or decreasing flow
- Custom flow settings
- Ideally suited for high purity application
- Low maintenance

Description

The M-62 inline flow switches monitor increasing or decreasing flow. The M-62 flow switch's construction comprises of an all-PFA molded body with a PTFE encapsulated magnetic piston. The all PFA and PTFE design makes the M-62 flow switch compatible for caustic fluids. The magnetized piston actuates a hermetically sealed reed switch in response to fluid flows. The M-62 switch is suitable for a wide range of applications in industrial, biomedical and semiconductor industries, especially where highly corrosive fluids are used.

Operating Principle

The magnetic piston moves in response to fluids with in the flow paths and actuates an external hermetically sealed magnetic reed switch. This switch contact can be used to actuate external devices such as audible/visual alarms, relays and other controls



Applications

- Semiconductor process equipments
- Welding systems
- Laser equipment
- Vacuum systems
- Laser cooling systems
- Water treatment
- Chillers

Measurement Specifications

Calibration Range *	Model M-55: Air : 300 - 55,000 scc/m Water : 20 -1600 cc/m
Set Point Accuracy	± 10%*
Repeatability	± 2%*
Hysteresis	30%*
Material	Body : PFA Wetted Parts : PTFE/PFA
Port Sizes	1/4" Flare 3/8" Flare
Maximum Operating Pressure	60 psig
Maximum Operating temperature	40°C

* may not apply to the lower set point ranges.

Cv at typical flow

Water cc/m	Air scc/m	Cv
850	30,000	0.43
1,595	55,000	0.54

Electrical Specifications

Reed Switch Data	Electical Ratings	10 Watts SPST or 3 Watts SPDT (Hermetically Sealed) UL Recognized. File E47258 Operating temperature -40°C to 125°C
	Switch Voltage	200 VDC (170 VDC for SPDT)
	Breakdown Voltage	250 VDC (200 VDC for SPDT)
	DC Resistive	10 VA (3 VA for SPDT)
	AC Resistive	10 Watts (3 Watts for SPDT)
	Switching Current	0.5 A (0.25 A for SPDT)
	Carrying Current	1.2 A (0.5 A for SPDT)
Lead Wires		No 24 to 18 AWG. 18" length, Polymeric UL Recognized (Belden cable or special shielded cable is available)
Lead Wires Color		SPST: 2 blue wires SPDT: 3 wires Green - Common Yellow - Normally Closed Orange - Normally Open

NOTE: Consult the factory for any special requirements such as fluid connections, calibration range, temperature and pressure limits.

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Reed Switch Ratings as Recognized by UL

SPST	120 V ac 24 V dc 50V dc	0.1 A general purpose 0.25 A resistive 0.25 A resistive
SPDT	120 V ac 10 V dc 24 V dc	0.1 A general purpose 0.25 A resistive 0.1 A resistive

Certifications

UL and Canadian UL

UL and Canadian UL Recognized for ordinary locations. File E138467

CE Compliance

Meet the intent of Directive 89/336/EEC for Electromagnetic Compatibility and Low Voltage Directive 73/23/EEC for Product Safety. Compliance was demonstrated to the following specifications as listed in the Official Journal of the European Communities: EMC Directive 89/336/EEC: EN 55011, Class B Radiated Emissions, EN 50082-1 (Immunity): IEC 801-2, Electrostatic Discharge Immunity, IEC 801-3, RF Electromagnetic Field Immunity; Low Voltage Directive 73/23/EEC: EN 61010-1, Safety Requirements for electrical equipment for measurement, control, and laboratory use.

Installation & Maintenance

The standard switch has to be mounted vertically, in the position as shown on page 1, and the fluid flow is from the bottom to the top.

A ten micron or better filter is recommended.

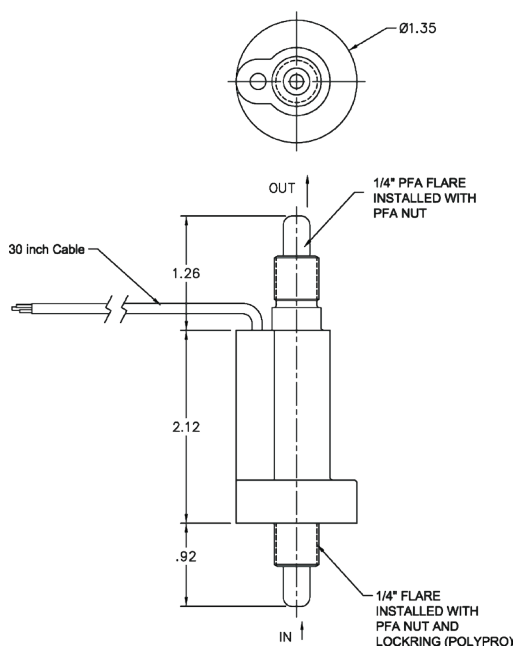
Important Ordering Information

This model is a FIXED flow switch. The flow set point is fixed at the factory and is NOT field adjustable. Proper calibration of the set point requires the following information. When purchasing a flow switch, use the "Set Point Calibration" form or provide the following information on the purchase order:

- Calibration set point
- Increasing or decreasing flow
- Fluid type
- Density or specific gravity
- Viscosity
- System pressure and temperature
- Flow direction

Dimensional Drawings

Illustrated is the M-62 model with 1/4" ports.



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Ordering Information

Model Code											Option	
M-62												
	-											
Material	F											PFA
Fluid Connection		2										1/4" flare
		3										3/8" flare
Switch			1									SPST N.O.
			2									SPST N.C.
			3									SPDT
				-								
					0							Standard (Vertical)
						1						PTFE Encapsulated
							-					
								XXX				Unique PN Identifier

NOTE: Specifications are subject to change without notice.

Custom Version Available

Malema welcomes the opportunity to apply its flow sensor experience to work for its customers. Please contact the factory for any special requirements; such as ports, extreme temperature and pressure capabilities, and others.

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