

## CLARK SOLUTIONS

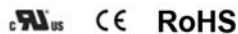
# VM Vacuum Switch

Set Point Range, 4-29" Hg, Factory Preset

### DESCRIPTION

Model VM is a simple, reliable low cost Vacuum switch that uses a spring loaded long-life elastomeric diaphragm as the sensing element. Model VM can be provided with a factory calibrated set-point or can be field adjustable.

In operation, the diaphragm actuates a snap action electrical switch that insures a positive, instantaneous electrical contact under all operating conditions.



### SPECIFICATIONS

Set Point Range- 4-30" Hg (102-762 mm Hg)

Set Point Tolerance-  $\pm 1$ " Hg or 5% (25 mm Hg)

Max Operating pressure- 250 PSI (17 bar)

Switch Deadband (differential)- 20-40%

Current Rating-

Media Connection- Standard: Brass (Optional:

Aluminum, Nickel Plating, Delrin, 303 SS, 316 SS)

Circuit Form- SPST-NO, SPST-NC, SPDT

Electrical Connections- See Order Table Below

Diaphragm- Buna-N

Cycle Life- 1 Million Cycles

Housing: NEMA 4, 13

### ORDERING INFORMATION

**ORDER NUMBER (SEE TABLE)**

**A-BCD-EFG**

**EXAMPLE- LM-B1C-150R-4WL**

A Model	B Connection Material	C Media Connection	D Circuit Form	E Fixed Set Point	F Set Point Direction	G *Electrical Options
VM	A= Aluminum <b>B= Brass (Standard)</b> N= Nickel Plating P= Delrin S= Zinc Plated Steel T= 303 Stainless Steel U= 316 Stainless Steel	1= 1/4" NPT Male 2= 1/8" NPT Male 11= 9/16" SAE O-Ring (-6) 17= 1/4" BSPP Male (G1/4)	A SPST-NO B SPST-NC C SPDT	Specify 4"-29" Hg	R= Rising F= Falling	- = <b>Screw Terminals (Standard)</b> WL= Wire Leads WP= Weather Pack HR= DIN43650A Connector MP= Metri-Pack AT= 10 A @ 125/250 VAC 5 A @ 30 VDC AU= Gold Plate/Alloy for low currents *See next page for more choices

#### More about changing switch state.....

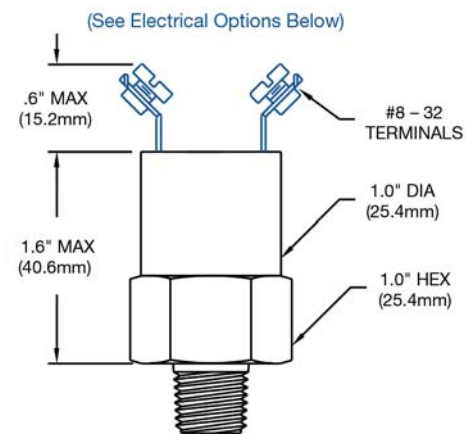
The snap-action design will maintain its state with contacts either open or closed, until a precise set point is reached when it will snap over center to a new state. It will remain in that state until a distinct change towards its original setting is sensed, at which time it will snap back to its original state.

The design's snap-action feature prevents contact intermittency near its switch point, which is common in creeper designs. As system pressures fluctuate, our switches inherent differential prevents searching. Only the highest quality snap-action switches are used. The switches are UL, CSA, and military approved.

The elastomer diaphragm, which moves a precise .040 of an inch, ensures accurate, instantaneous contact under all operating conditions. While nitrile is preferred for general use, other materials are available.



### DIMENSIONS (MM)



**A COMPREHENSIVE SELECTION OF ELECTRICAL CONNECTIONS**

We see designs used in all types of applications imaginable, so we want to make sure you have a wide choice of electrical connections.

We offer a growing selection of connections, and if you want something else, just ask us for it.



**HF**  
DIN43650A  
1/2" Conduit  
(Plug & Receptacle)

**HH**  
DIN43650A  
(Plug Only)

**HR**  
DIN43650A  
Strain Relief  
(Plug & Receptacle)

**HP**  
9.4mm DIN  
(Plug Only)

**HM**  
9.4mm DIN  
(Plug & Receptacle)

**MP**  
Metri-Pack  
Female 280  
Series Sealed

**NP**  
Metri-Pack  
Male 280  
Series Sealed



**CP**  
Metri-Pack  
Female 150  
Series Sealed

**DP**  
Metri-Pack  
Male 150  
Series Sealed

**PP**  
Boot  
(Military  
Connector)

**QC**  
1/4" Male  
Spade Quick  
Connect

**WL**  
Wire Leads

**WP**  
Weather Pack  
(Female)

**TP**  
Weather Pack  
(Male)



**EL**  
1/2" NPT  
Male  
Conduit

**EF**  
1/2" NPT  
Female  
Conduit

**WD**  
Deutsch  
Receptacle

**PD**  
Deutsch  
Plug

**ES**  
M12 - 4PIN

**CL**  
Sheathed  
18 AWG  
Primaries

**SL**  
SJO  
Cable

**VL**  
Convolute  
Covering

Color Code:      Black – Common      Red – Normally Open      Blue – Normally Closed  
Pin Assignments:      A – Normally Open      B – Common      C – Normally Closed  
DIN Connector Pin Assignments:      #1 – Common      #2 – Normally Closed      #3 – Normally Open      #4 – Not Used  
M12 Connector Pin Assignments:      #1 – Common      #2 – Not Used      #3 – Normally Open      #4 – Normally Closed