



**InstruTech®**

## Series 100 Mini Bee™ Absolute and Differential Vacuum Switches

**Accurate and reliable pressure detection**  
  
**Absolute setpoint range between 20 to 970 Torr, relay energized when pressure drops below setpoint**

**Differential setpoint range between -99 to +46 Torr relative to atmosphere, relay energized when differential pressure setpoint reached**

**No maintenance required in clean applications**

**Easy installation with preset set points that can be field adjusted**

**Compact design**

**Robust corrosion resistant design, cleanroom compliant**



### VSM100 Mini Bee

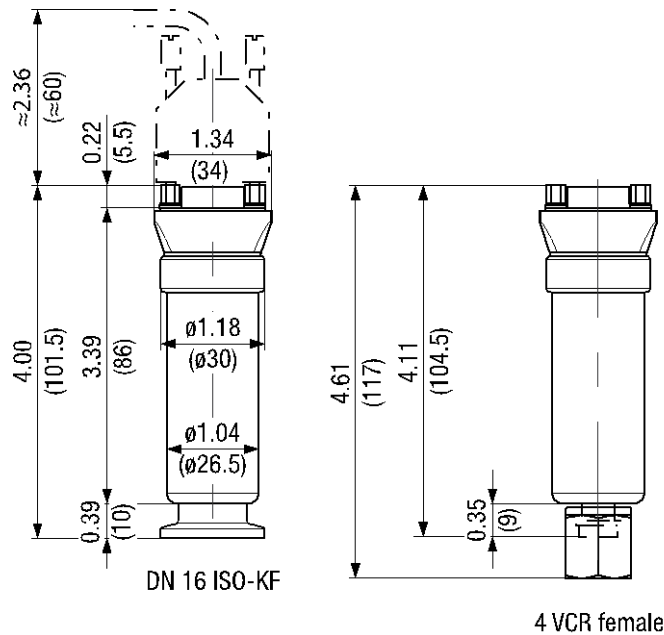
The VSM100 *Mini Bee*™ is a cleanroom complaint all stainless steel corrosion resistant vacuum switch. It is a high-accuracy, temperature compensated sensor designed for accurate and reliable pressure detection in vacuum applications including pressure interlocks.

The *Mini Bee* is available in an absolute and differential configuration. The absolute switch has a full scale rating of 1000 Torr and the setpoint relay can be preset to any user specified value from 20 to 970 Torr. The differential switch setpoint can be preset set from 99 Torr below atmospheric pressure up to 46 Torr above atmosphere pressure.

Specifications	VSM100A absolute vacuum switch	VSM100D differential vacuum switch
full Scale	1,000 Torr absolute	150 Torr differential
differential range	N/A	-100 to +50 Torr (relative to atm.)
setpoint range	20 to 970 Torr	-99 to + 46 Torr (relative to atm.)
setpoint accuracy	0.5% F.S.	0.5% F.S.
setpoint contact rating	≤30 V (dc) / 1 A (dc) ≤30 V (ac) / 0.3 A (ac)	≤30 V (dc) / 1 A (dc) ≤30 V (ac) / 0.3 A (ac)
temperature effect on zero & span	≤ ±0.02% F.S. / °C	≤ ±0.02% F.S. / °C
response time	≤ 45 ms	≤ 45 ms
hysteresis	2 % above setpoint	2 % above setpoint
materials exposed to vacuum	stainless steel	stainless steel
internal volume	NW16KF 4VCR	
	0.17 in <sup>3</sup> (2.81 cm <sup>3</sup> ) 0.057 in <sup>3</sup> (0.93 cm <sup>3</sup> )	0.17 in <sup>3</sup> (2.81 cm <sup>3</sup> ) 0.057 in <sup>3</sup> (0.93 cm <sup>3</sup> )
weight	4.94 oz. (140 g)	4.94 oz. (140 g)
operating temperature	0 to +70 °C	0 to +70 °C
storage temperature	-40 to 80 °C	-40 to 80 °C
admissible pressure (absolute)	72.5 psi (5 bar)	29 psi (2 bar)
mounting orientation	any	any
input power	14 to 30 Vdc, 0.5 W	14 to 30 Vdc, 0.5 W
CE compliance	EN 61000-4-3:2006 EN 61010-1:2010	EN 61000-4-3:2006 EN 61010-1:2010
environmental	RoHS	RoHS

## Dimensions

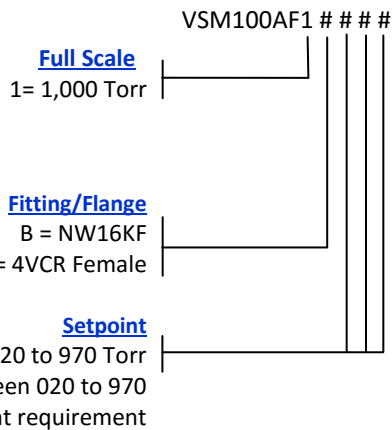
in. (mm)



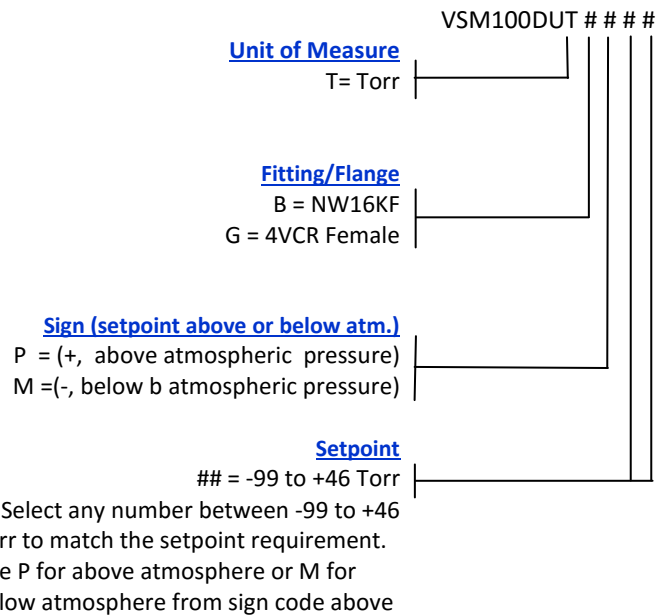
### Ordering Information

#### VSM100A Absolute Vacuum Switch

#### VSM100D Differential Vacuum Switch



Example: VSM100AF1G030 (Absolute vacuum switch with 4VCR fitting, setpoint at 30 Torr)



Example: VSM100DUTGP40 (Differential vacuum switch, Torr, 4VCR fitting, setpoint 40 Torr above atmospheric pressure)



**InstruTech®**

1475 S. Fordham Street  
Longmont, CO 80503  
USA

Phone +1-303-651-0551  
Fax +1-303-678-1754  
E-mail [info@instrutechinc.com](mailto:info@instrutechinc.com)  
Web [www.instrutechinc.com](http://www.instrutechinc.com)