



InstruTech®

Series 100 Mini Bee™ Absolute and Differential Vacuum Switches

Accurate and reliable pressure detection

No maintenance required in clean applications

Absolute setpoint range between 20 to 970 Torr, relay energized when pressure drops below setpoint

Easy installation with preset set points

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

Compact design

Robust corrosion resistant design, cleanroom compliant



VSM100 Mini Bee

The VSM100 *Mini Bee*™ is a cleanroom compliant 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.

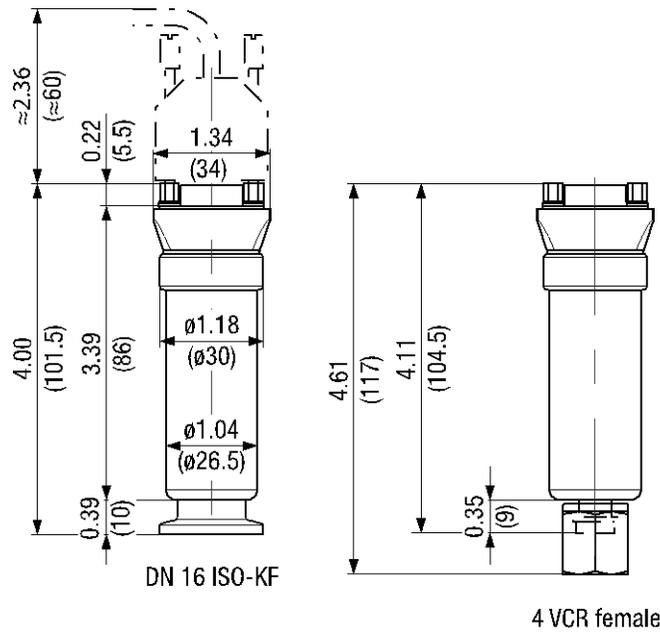
The *Mini Bee* is available in an absolute and differential configuration. The absolute switch has a full scale rating of 1000 Torr and the setpoint relay can be preset to any user specified value from 20 to 970 Torr. The differential switch setpoint can be preset set from 99 Torr below atmospheric pressure 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 % F.S. above setpoint | 2 % F.S. above setpoint |
| materials exposed to vacuum | stainless steel | stainless steel |
| internal volume | NW16KF 4VCR 0.17 in ³ (2.81 cm ³) 0.057 in ³ (0.93 cm ³) | 0.17 in ³ (2.81 cm ³) 0.057 in ³ (0.93 cm ³) |
| 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

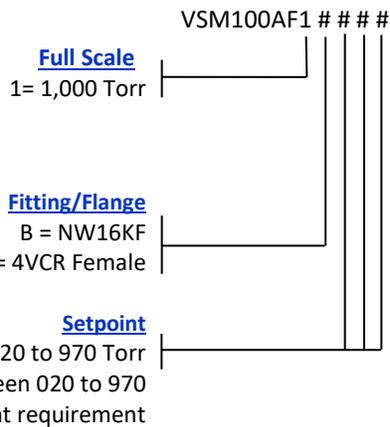
in. (mm)



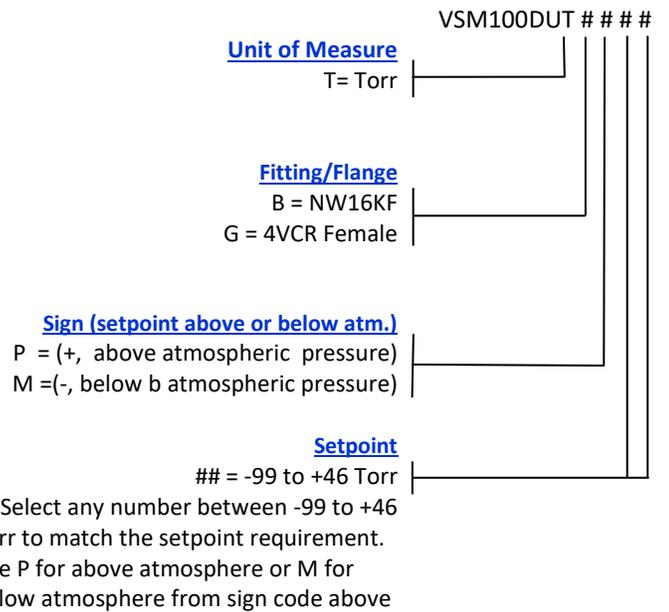
Ordering Information

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)



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