

## VSC43

## Vacuum Transducer Absolute Pressure 1400 to 1 mbar

The VSC43 piezo transducer is used for measuring absolute pressure in the rough vacuum range.

Due to its durable ceramic sensor it is nearly insensitive to dirt and contamination.



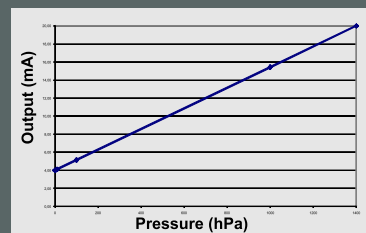
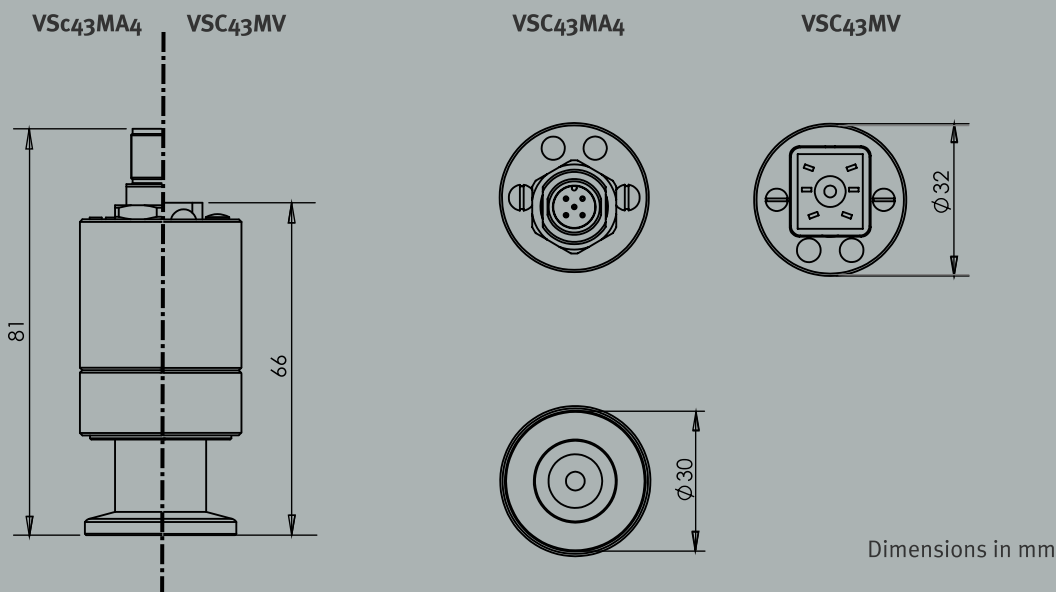
### Typical Applications

- Appliance engineering
- Medical technology
- Packing machines
- Plant engineering
- Chemical process engineering
- Vacuum furnaces
- Operation control and documentation of vacuum plants and pumps
- Vacuum drying

### Benefits

- Chemical resistant ceramic sensor with FKM sealing
- High reliability and long term stability
- Short response time
- Resistant to dirt
- Measurements independent of gas type
- Temperature compensated
- Precise push button digital adjustment of zero pressure and span
- Suitable for Thyracont 1 and 2 channel display and control units VD6 / VD12
- Standardized output signal 4-20 mA (two wire) or 1-8 V (four wire)
- Easy connection to PLCs and other system controllers
- Extremely compact, designed for industrial applications
- Robust metal housing with protection class IP54 (VSC43MA4)
- Vacuum connection over a stainless steel small flange DN 16 ISO-KF with G1/4 female thread





#### VSC43MA4

$$I_{out} \text{ (mA)} = (p \text{ (hPa)} / 87.5) + 4.0$$

$$p \text{ (hPa)} = 87.5 (I_{out} \text{ (mA)} - 4.0)$$

#### VSC43MV

$$V_{out} \text{ (V)} = 0.005 \times p \text{ (mbar)} + 1.0$$

$$p \text{ (mbar)} = (V_{out} \text{ (V)} - 1.0) \times 200$$

#### Technical Data

Measuring Principle	Piezo resistive, independent of gas type
Materials In Contact With Vacuum	Stainless steel 1.4305, Al <sub>2</sub> O <sub>3</sub> ceramic, FKM
Measurement Range	1400 - 1 mbar (1050 - 1 Torr), max. overpressure 4 bar absolute
Accuracy	± 0.3 % full scale
Response Time	20 ms
Power Supply	9 - 30 VDC (VSC43MA4) 15 - 30 VDC (VSC43MV)
Electrical Connection	M12 A, 5pole, male, lockable (VSC43MA4), type Hirschmann, 6pole, male, lockable (VSC43MV)
Operating Temperature	+5...+60°C
Storage Temperature	-40...+70°C
Output Signal	VSC43MA4: 4 - 20 mA, linear, two wire, max. loop resistance: $RL = (\text{supply voltage} - 9V) / 20 \text{ mA}$ VSC43MV: 1.0 to 8.0 VDC, linear (5 mV/mbar)
Vacuum Connection	Stainless steel small flange DN 16 ISO-KF with G1/4 female thread
Protection Class	IP54 (VSC43MA4), IP40 (VSC43MV)
Weight	Approx. 125 g

#### Product Codes

• **VSC43MA4**  
Piezo transducer 1400 - 1 mbar with DN 16 ISO-KF flange; G1/4 female thread; output 4 - 20mA

• **VSC43MV**  
Piezo transducer 1400 - 1 mbar with DN 16 ISO-KF flange; G1/4 female thread; output 1.0 - 8.0 VDC

#### Accessories:

• **VD81SW1**  
Hose nozzle brass, nickel plated

• **XB0500004**  
Mating plug, 5pole f. VSC43MA4

• **XB0600002**  
Mating plug, 6pole f. VSC43MV

• **W0509002**  
Measuring cable for VSC43MA4 with VD6, shielded, 2 m

• **W0509006**  
As W0509002, 6 m

• **W0606002**  
Measuring cable for VSC43MV with VD12, shielded, 2 m

• **W0606006**  
As W0606002, 6 m