

## VSP841/842

## Passive Vacuum Sensor

Absolute Pressure 1000...100 to  $1 \times 10^{-3}$  mbar

The VSP841 and VSP842 Pirani half bridges measure absolute pressure in the fine vacuum range.

The robust heat conduction sensor is compact, preadjusted and temperature compensated and is suitable for controlled and passive bridge circuit.

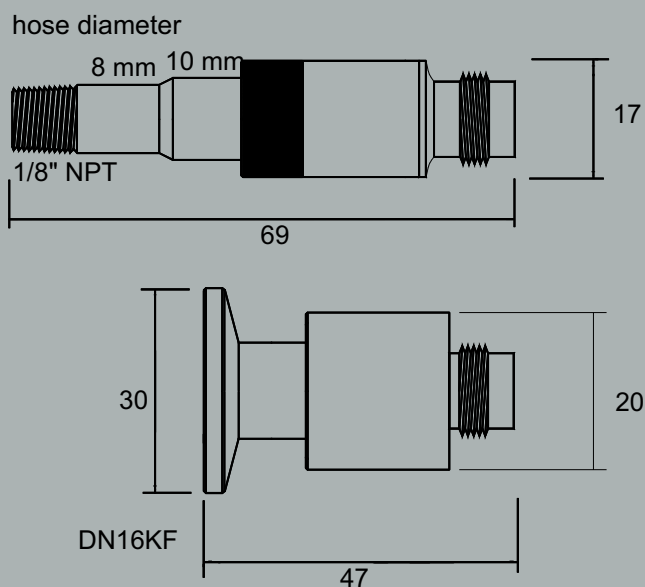


### Typical Applications

- Appliances with integrated electronics for regulation and evaluation
- Apparatus engineering
- Analysis instruments
- Chemical process engineering
- Freeze drying
- Monitoring of vacuum insulations
- Concentrators

### Benefits

- Economical Pirani sensor
- Long time stability
- Durable sensor, elastic helix filament
- Filament protected from condensing solvents by a metal screen
- Extremely small sensor volume
- Temperature sensor integrated
- Compact dimensions
- Lockable, electric connector
- Optionally with cap to protect the sensor against dust and humidity
- Sensor pre-adjusted
- Vacuum connection by stainless steel small flange DN 16 ISO-KF (VSP841) or 1/8" NPT male thread (VSP842)
- Proposal for evaluation circuit available on request



## Technical Data

Measuring Principle	Pirani, depending on gas type
Materials In Contact With Vacuum	Stainless steel 1.4305, nickel, tungsten, glass, epoxy resin
Measurement Range	1000...100 - $1 \times 10^{-3}$ mbar (750...75 - $1 \times 10^{-3}$ Torr), admitted overpressure 4 bar absolute
Accuracy	Dependent on the evaluation circuit, e. g. 10 - $1 \times 10^{-2}$ mbar: Approx. 15% from reading
Response Time	Approx. 200 ms
Power Supply	Supply of bridge circuit according to circuit proposal
Electrical Connection	4 pole circular plug binder 713, screwable
Power Consumption	Approx. 30 mA
Operating Temperature	+10...+40°C
Storage Temperature	-20...+80°C
Maximum Bake Out Temperature	80°C at the flange
Output Signal	Change of bridge voltage depending on vacuum
Vacuum Connection	VSP841: DN 16 ISO-KF, stainless steel, Ni VSP842: 1/8"-NPT-male thread, stainless steel, Ni
Protection Class	IP65
Weight	Approx. 60g

## Product Codes

• **VSP841**  
Pirani half bridge,  
1000...100 -  $1 \times 10^{-3}$  mbar,  
with DN 16 ISO-KF connection

• **VSP842**  
Pirani half bridge,  
1000...100 -  $1 \times 10^{-3}$  mbar  
with 1/8"-NPT thread

## Accessories

• **XB0400005**  
Mating plug for VSP841 / 842

• **VSPKAPPE**  
Protective cap for plug