



VACUUM MEASUREMENT

Digital High-Vacuum Gauges

At ALFAVAC we developed a portfolio of specialized gauges for measuring vacuum systems in high-vacuum range with the massive variety of options, including combination of Piezo-resistive and Pirani sensor. Our vacuum gauges are suitable for atmosphere to high vacuum pressure measurement.



Piezo-resistive/Pirani gauge

These vacuum gauges ensure accurate measurement in wide range of pressure, from atmospheric pressure to high-vacuum (10e-2 Pa).

- Digital gauge
- Piezo-resistive MEMS chip / Long Pirani filament
- Wide range power supply
- Set point relay
- Display option

Technical Specification

Measurement range	1250 hPa to 10e-2 Pa
Accuracy	±0,5 hPa (1250 to 300 hPa), ±15% (100 hPa to 10e-1 Pa), ±50% (10e-1 to 10e-2 Pa)
Repeatability	0,06 hPa (1250 to 300 hPa), 2% of reading (300 hPa to 10e-1 Pa)
Supply voltage	10 to 35 VDC
Electrical connection	D-SUB 9 pin
Serial output	RS-485
Relay contact rating	40 VDC max., 500 mA
Status indicator	Optional display
Operating temperature range	5 to 60°C
Max. bake-out (electronics removed)	80°C
Max. relative humidity	80%
Materials exposed to vacuum	Tungsten/Platinum, Stainless steel 304, Glass, Ni
Protection class	IP 40
Certifications	CE, RoHS
Connecting flange	ISO-KF 25, ISO-CF 25
Service	Replaceable filament and electronics

Part Number Matrix

	Filament	Set point	Flange	Display
VGPP	X	X	X	X
	0 = Standard	0 = No set point	0 = ISO-KF 25	0 = without display
	1 = Corrosion resistant	1 = 1 Set point	1 = ISO-CF 25	1 = with display

Pirani gauge

These vacuum gauges ensure accurate measurement in the range of high-vacuum pressure (up to 10e-2 Pa).

- Digital/Analogue gauge
- Long filament
- Wide range power supply
- Set point relay
- Display option

Technical Specification

Measurement range	ATM to 10e-2 Pa
Accuracy	±50% (ATM to 100 hPa), ±15% (100 hPa to 10e-1 Pa), ±50% (10e-1 to 10e-2 Pa)
Repeatability	2% of reading (100 hPa to 10e-1 Pa)
Supply voltage	10 to 35 VDC (15 to 35 VDC for analog output)
Electrical connection	D-SUB 9 pin
Serial output	RS-485
Analogue output	0 to 10 V
Relay contact rating	40 VDC max., 500 mA
Status indicator	Optional display
Operating temperature range	5 to 60°C
Max. bake-out (electronics removed)	150°C
Max. relative humidity	80%
Materials exposed to vacuum	Tungsten/Platinum, Stainless steel 304, Glass, Ni
Protection class	IP 40
Certifications	CE, RoHS
Connecting flange	ISO-KF 16/25, ISO-CF 16/25
Service	Replaceable filament and electronics

Part Number Matrix

	Filament	Set point	Flange	Output	Display
VGPR	X	X	X	X	X
	0 = Standard	0 = No set point	0 = ISO-KF 16	0 = 0-10V, linear with pressure	0 = without display
	1 = Corrosion resistant	1 = 1 Set point	1 = ISO-CF 16	1 = 0-10V, non-linear with pressure	1 = with display
			2 = ISO-KF 25	2 = RS-485	
			3 = ISO-CF 25		