


# Data Sheet (EN)

Translation of the german original



Designation, Model:	Order number:
Multi-range vacuum gauge VMpro 1, DN16KF, 100-240V 50/60Hz	600092

Figure:	Description:
	<p>VMpro 1 multi-range vacuum gauge combines Pirani technology with the advantages of a ceramic capacitance diaphragm sensor in a single gauge.</p> <p>In the measurement range between 10 mbar and atmospheric pressure the capacitance diaphragm technology provides gas-type independent, highly accurate values for reliable pressure measurement.</p> <p>The built-in digital LCD display gives clear readability for easy vacuum level monitoring and also shows the current measuring principle. There is a status indication light on top of the sensor</p> <p><u>Scope of delivery:</u> VMpro 1 vacuum gauge, AC/DC power adapter with EU and UK plug adapters, connection cable</p>

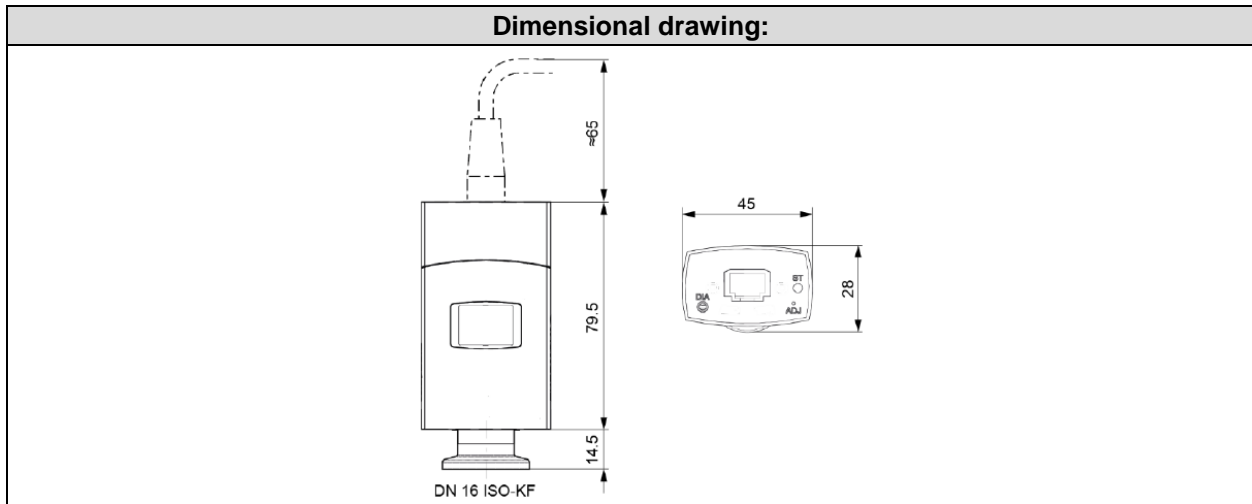
Technical data:		
Parameter	Data	Unit
Measuring range	1500 – 5x10 <sup>-5</sup>	mbar
	1125 – 3.8x10 <sup>-5</sup>	Torr
Accuracy		
5x10 <sup>-4</sup> – 1x10 <sup>-3</sup> mbar	±50	% of reading
1x10 <sup>-3</sup> – 100 mbar	±15	
100 – 950 mbar	±5	
950 – 1050 mbar	±2.5	
Repeatability		
1x10 <sup>-3</sup> – 1100 mbar	±2	% of reading
Max Pressure	10	bar
Admissible temperature		
Operation	+10 – +50	°C
Storage	-20 – +65	
Bakeout at flange	≤ +80	
Bakeout at flange long tube	≤ +250	
Vacuum connection	16 KF	DN
Maximum altitude	2000	m
Relative humidity, annual mean	≤ 65	% (non-condensing)
Voltage	100 - 240	V
Frequency	50 / 60	Hz
Plug adapters	EU (Schuko) & UK	-
Mounting orientation	Any	-
Internal volume	4.7	cm <sup>3</sup>
Sensor weight	< 120	g
Sensor dimensions W/D/H	159 / 45 / 28	mm (including cable bend)

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Application:	Materials of the medium-affecting parts:	
<p><b>The vacuum gauge VMpro 1 is intended for:</b></p> <ul style="list-style-type: none"> <li>Measuring absolute pressures in the rough and fine vacuum range which is created by, for example, diaphragm pumps, piston pumps, rotary vane pumps and similar devices</li> <li>Use in physical laboratories in education, R&amp;D and industry</li> <li>Use for vacuum monitoring in general vacuum technology applications and fore vacuum measurement in UHV systems.</li> </ul>	<b>Diaphragm sensor</b>	Al <sub>2</sub> O <sub>3</sub> ceramic
	<b>Pirani filament</b>	Tungsten
	<b>Feedthrough</b>	Glass
	<b>Flange</b>	Stainless Steel
	<b>Orifice</b>	Stainless Steel
	<b>Other parts</b>	Ni, NiFe, Stainless Steel, SnAg



Accessories:	
Description	Order number
DN16KF clamping ring, Aluminium	701011
DN16KF external centring ring, Aluminium with FKM O-ring	701151
DN16KF internal centring ring with screen, Stainless Steel with FKM O-ring	701191
Hose nozzle adapter DN16KF flange - DN8-10 nozzle, Stainless Steel	710743
Hose nozzle adapter DN16KF flange - DN12 nozzle, Stainless Steel	701702
Schlenkline adapter DN16KF flange - NS14/23 cone, Stainless Steel	710213
Red rubber vacuum hose, 8mm ID, 5mm wall thickness	828310-4
Red rubber vacuum hose, 10mm ID, 5mm wall thickness	828310-3
Reducer flange, DN25/16KF, Stainless Steel	701401
Factory Calibration certificate for WELCH Vacuum gauges	L955112

Alternative items:	
Description	Order number
VMpro 2 chemical resistant multi-range vacuum gauge, DN16KF, 100-240V 50/60Hz	600094
Vacuum measurement kit, DN16KF - includes VMpro 2 gauge, T-piece and connecting pieces	330051

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