Data Sheet (EN)

Translation of the german original



| Designation, Model: | Order number: |
|-----------------------------------|---------------|
| Multi-range vacuum gauge, VMpro 1 | 600092 |

| Figure: | Description: |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WELCH | VMpro 1 multi-range vacuum gauge combines Pirani technology with the advantages of a ceramic capacitance diaphragm sensor in a single gauge. 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. The built-in digital 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. |

| Technical data: | | |
|----------------------------------------------|-----------------------------|------------------------------|
| Parameter | Data | Unit |
| Measuring range | 1500 – 5x10 ⁻⁵ | mbar |
| | 1125 – 3.8x10 ⁻⁵ | Torr |
| Accuracy | | |
| 5x10 ⁻⁴ – 1x10 ⁻³ mbar | ±50 | |
| 1x10 ⁻³ – 100 mbar | ±15 | % of reading |
| 100 – 950 mbar | ±5 | % or reading |
| 950 – 1050 mbar | ±2.5 | |
| Repeatability | | · |
| 1x10 ⁻³ – 1100 mbar | ±2 | % of reading |
| Max Pressure | 10 | bar |
| Admissible temperature | | |
| Operation | +10 - +50 | |
| Storage | -20 – +65 | °C |
| Bakeout at flange | ≤ +80 | |
| 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 ³ |
| Sensor weight | < 120 | g |
| Sensor dimensions W/D/H | 159 / 45 / 28 | mm (including cable bend) |

Scope of delivery: VMpro 1 vacuum gauge, AC/DC power adapter with EU and UK plug adapters, connection cable.

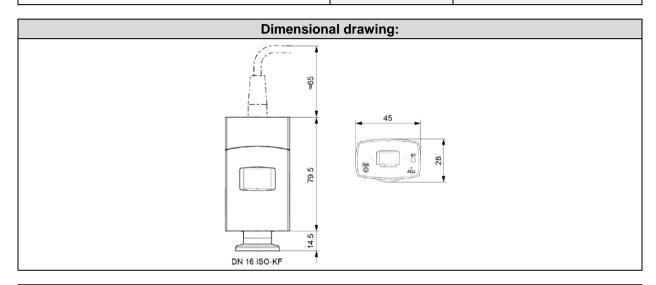


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| Application: | Materials ot the medium-affecting parts: | |
|-----------------------------------------------------------------------------------------------------------------|------------------------------------------|----------------------------------------|
| The vacuum gauge VMpro 1 is intended for: | Diaphragm sensor | Al ₂ O ₃ ceramic |
| Measuring absolute pressures in the rough and fine vacuum range which is created by, for | Pirani filament | Tungsten |
| example, diaphragm pumps, piston pumps, rotary vane pumps and similar devices | Feedthrough | Glass |
| Use in physical laboratories in education, R&D and industry | Flange | Stainless Steel |
| Use for vacuum monitoring in general vacuum technology applications and fore vacuum measurement in UHV systems. | Orifice | Stainless Steel |
| | Other parts | 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, 100-240 V, 50/60 Hz | 600094 | |
| Vacuum measurement kit, DN16KF - includes VMpro 2 gauge, T-piece and connecting pieces | 330050 | |



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