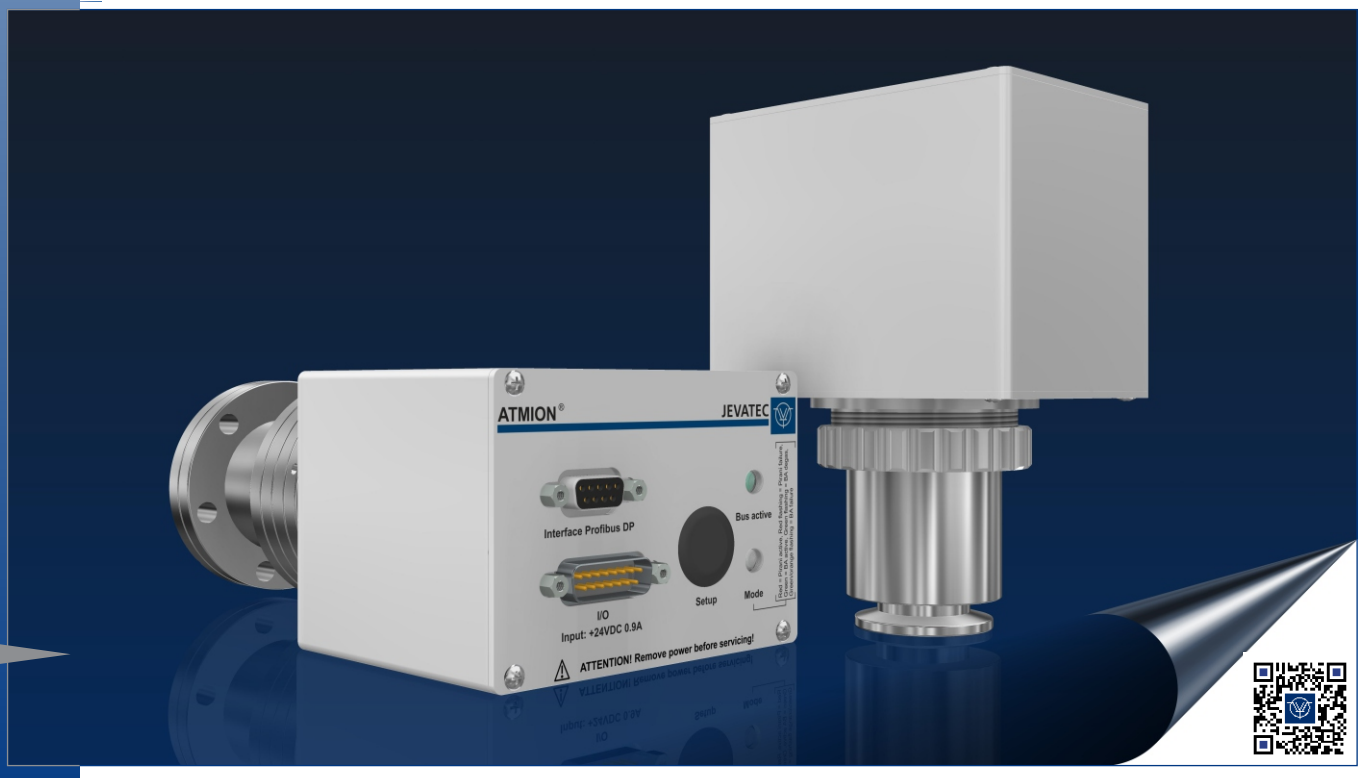
JEVATEC
Ideen in der Vakuumtechnik

# ATMION®

## Active wide-range vacuum gauge

- consistent pressure measurement from atmosphere to UHV by a combination of Pirani and Bayard-Alpert-Ionisation principle with only one sensor
- ATMION compact with two robust hairpin filaments for industry customers
- ATMION standard with two replaceable straight filaments for processes in UHV
- analog output, serial interface RS232 and digital control inputs
- Profibus DP interface optionally
- programmable switching point function
- supply voltage +24 VDC
- vacuum connection via flange DN25KF or DN40CF
- sensor in stainless steel tube, electronic box made of aluminium
- compatible with vacuum controllers by JEVATEC and VACOM



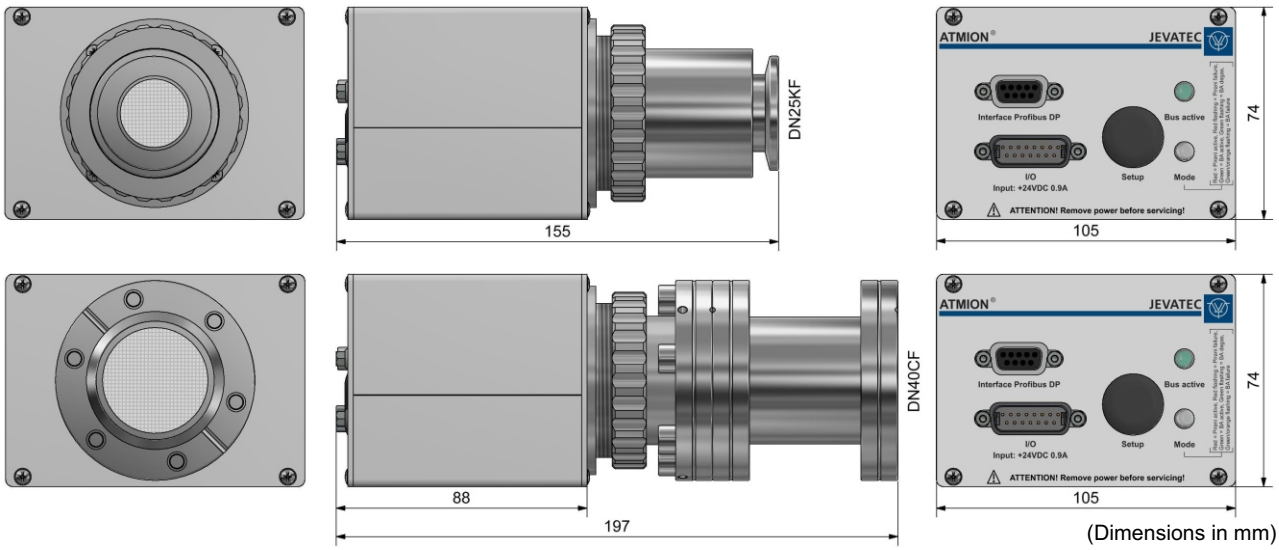
## Versions

| | |
|---|---|
| **ATMION® compact** | 2 hairpin filamants and Pirani wire in a replacement gauge head DN25KF, measuring range 1000 – $1 \cdot 10^{-8}$ mbar |
| **ATMION® compact-DP** | like ATMION® compact, but with Profibus DP interface |
| **ATMION® standard** | 2 replaceable straight filaments and Pirani wire in a sensor DN40CF, measuring range 1000 – $1 \cdot 10^{-10}$ mbar |
| **ATMION® standard-DP** | like ATMION® standard, but with Profibus DP interface |

## Technical Data

| | | | |
|---|---|---|---|
| **Vacuum measuring:** | Measuring range: | ATMION® compact: | $1 \cdot 10^{-8}$ – 1000 mbar |
| | | ATMION® standard: | $1 \cdot 10^{-10}$ – 1000 mbar |
| | Measuring principles: | heat conduction of Pirani (temperature-compensated) | |
| | | hot cathode ionisation of Bayard-Alpert | |
| | Switch-over between principles: | Pirani / Bayard-Alpert: | $1 \cdot 10^{-2}$ mbar |
| | | Bayard-Alpert / Pirani: | $1 \cdot 10^{-1}$ mbar |
| | Accuracy ($N_2$): | 10 – $1 \cdot 10^{-2}$ mbar | ± 25 % of measuring value |
| | | $1 \cdot 10^{-2}$ – $1 \cdot 10^{-8}$ mbar | ± 10 % of measuring value |
| **Sensor:** | Pirani: | platinum wire | |
| | Bayard-Alpert: | ATMION® compact: | 2 yttria-coated iridium hairpin filaments |
| | | ATMION® standard: | 2 replaceable yttria-coated iridium straight filaments |
| Materials in vacuum: | stainless steel 1.4301, tungsten, platinum, glass ceramic, yttria-coated iridium | | |
| | Overpressure stability: | 1.5 bar abs. | |
| **Power supply:** | Operation voltage: | +24 VDC (SELV-E according to EN 61010) | |
| | Current consumption: | ≤ 0.9 A | |
| | Connection: | 25-pin SUB-D male connector | |
| **Identification:** | Compatibility: | JEVATEC – JEVAmet® VCU | |
| | | VACOM – MVC-3 | |
| **Analog output:** | Measuring signal: | 0 – +10.0 VDC logarithmic linear with 0.625 VDC per decade | |
| | Failure signal: | +9.375 – +10.0 VDC | |
| | Signal and pressure relation: | $U = 0.625 \cdot \lg(p / 10^{-12})$ [V] | |
| **Digital interfaces:** | Serial interface RS232 via 15-pin SUB-D male connector | | |
| | Profibus DP interface via 9-pin SUB-D female connector (optionally) | | |
| **Switching function:** | Number: | 1 TTL set point, potential free (+24 VDC, 0.1 A max.) | |
| | Connection: | 15-pin SUB-D male connector | |
| **Environment:** | Operation temperature: | +10 – +40 °C (sea level) | |
| | Bakeout temperature: | ATMION® compact: | 180°C max. at flange (electronic box removed) |
| | | ATMION® standard: | 250°C max. at flange (electronic box removed) |
| | Usage: | indoors (2000 m above sea level max.), protection class IP40 | |
| **Weight:** | 0.8 – 1.6 kg approx. | | |

## Dimensions




(Dimensions in mm)

## More information under: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