

PENNINGVAC-Transmitter PTR 90 N



PENNINGVAC Transmitter PTR 90 N analog (left); digital (middle), with Display (right)

The PENNINGVAC transmitter combines the cold cathode ionization principle with the MEMS-Pirani sensor. This allows the complete coverage of the measurement range from 1×10^{-8} mbar to atmosphere by a single transmitter. The compact design, broad measurement range and cost efficiency make this transmitter the perfect gauge for several applications.

Advantages to the User

- Enhanced reliability through automatically turning on the cold cathode by the MEMS-Pirani
- Significantly higher accuracy in the upper range by using the MEMS Pirani
- Longer lifetime due to low cold cathode turn on pressure
- High reproducibility
- Available with display for pressure units, set point parameters and operation status
- Wide measurement range combining two sensor technologies into a single output
- Ease of serviceability by modular design of the cold cathode
- Automatic zeroing during pump down cycle for improved accuracy
- LED ring to indicate status of the sensor
- Measurement signal insensitive to mounting position

Typical Applications

Typical Applications within the measurement range from 1×10^{-8} mbar to atmosphere are:

- General vacuum base pressure measurement
- Sputtering and coating technology
- Analytical technology (e. g. mass spectrometer control)
- Vacuum Furnaces
- Multipurpose pressure measurement and control up to the high vacuum range
- Metallurgy
- Scanning electron microscopes
- Process industry

Option

For protection of the sensor PTR 90 N against contamination, radiation and other disturbing factors the installation of a baffle is recommended.

Two types of baffles are available: A build-in version for CF connections is mounted in the sensor; the baffle for ISO-KF connections is integrated in a centering ring.

Ordering Information

PENNINGVAC Transmitter
PTR 90 N

	Part No.
PTR 90 N	
DN 25 ISO-KF, FCC 68 / RJ 45	230070V02
DN 25 ISO-KF, Display, FCC 68 / RJ 45	230085V02
DN 25 ISO-KF, EtherCAT	230089V02
DN 25 ISO-KF, 2 SP, RS 232	230088V02
DN 40 ISO-KF, FCC 68 / RJ 45	230071V02
DN 40 CF, FCC 68 / RJ 45	230072V02
Replacement cathode plate for PTR 90 N / PTR 225 N (up to serial no. 17022777352) for PTR 90 N / PTR 225 N (from serial no. 17022777353)	EK16291V02 EK16292V02
Replacement anode ring for PTR 90 N / PTR 225 N (up to serial no. 17022777352) for PTR 90 N / PTR 225 N (from serial no. 17022777353)	20028711V02 E20028712V02
Baffle, with centering ring (FPM (FKM)) DN 25 ISO-KF DN 40 ISO-KF	230 078 230 079
Calibration	see chapter "Miscellaneous", para. "Leybold Calibration Service"
Operating Units DISPLAY ONE DISPLAY TWO DISPLAY THREE GRAPHIX ONE GRAPHIX TWO GRAPHIX THREE	230 001 230 024 230 025 230680V01 230681V01 230682V01
Connection cable, FCC 68 on both ends¹⁾ 5 m 10 m 15 m 20 m 30 m 50 m 75 m 100 m	Type A 124 26 230 012 124 27 124 28 124 29 124 31 124 32 124 33
Connection cable, RS 232 ¹⁾ 5 m 10 m 15 m 20 m RS232 / USB Converter for setpoint definition of RS232 gauges	Type G 230550V01 230551V01 230552V01 230553V01 230399V02

¹⁾ See chapter "Connection cables for Active Sensors"