



THERMOVAC Series TTR 91 R

Robust vacuum sensor
for industrial applications



THERMOVAC TTR 91 R

New vacuum transmitter

High endurance, accurate and reproducible results

Leybold transmitters are specially suited for system integration.

Our high-precision THERMOVAC transmitters meet your demands:

- Highly reliable fore vacuum pressure measurement
- Highly reproducible measurement results
- Suited for harsher applications beyond clean air processes
- Less sensitive to particle contamination

THERMOVAC TTR 91 R

New sensor to the THERMOVAC range

Complementary to the proven range of THERMOVAC TTR gauges, the new TTR 91 R provides an extended capacity for usage in high contamination / particulate processes without any loss of the high quality expected from products of the THERMOVAC range.

The compact and robust design with an overpressure limit of 10 bar (abs.), removable housing allowing bakeout up to 150 °C, and glass metal sealings make the TTR 91 R suitable for a wide range of applications.

The new THERMOVAC TTR 91 R is compatible to the GRAPHIX and DISPLAY controller series making it a great addition to the Leybold product portfolio.

Principle of measurement

Thermal conductivity after Pirani

Pressure range

$5 \cdot 10^{-4}$ to 1000 mbar



Leybold GmbH
Bonner Str. 498 · D-50968 Köln

T +49 (0) 221-347-0
F +49 (0) 221-347-1250
info@leybold.com

www.leybold.com



Customer Benefits

- Heated filament for use in harsher processes
- Easily exchangeable measurement tube
- Removable electronics housing allows bakeout up to 150 °C
- Glass metal sealed for high levels of leak tightness
- High overpressure limit of 10 bar abs.

Typical Applications

- Chemical/Chemistry processes
- Heat Treatment/Metallurgy
- Automotive Industry
- Space Simulation
- Analytical
- Refrigeration and Air conditioning
- Chemistry / Research laboratories
- High vacuum pump systems
- Mechanical Engineering
- Process Industry

Technical Data	
Principle of measurement	Thermal conductivity, heated filament
Pressure range	5×10^{-4} to 1000 mbar
Accuracy	typically $\pm 15\%$ at < 100 mbar
Status indicators	integrated LED
Max. bakeout temperature	150 °C (with electronics housing removed)
Overpressure limit	10 bar (abs.)
Weight	85 g
Filament temperature	100 °C above ambient
Protection class	IP 40
Maximum altitude	3000 metres
Setpoint	1 (Transistor, max. load 100 mA)
Max cable length	100 m (type A)
Electrical connection	RJ45 / FCC68
Controller type	DISPLAY and GRAPHIX series
Materials exposed to vacuum	
Filament	Tungsten/Rhenium
Tube	Stainless steel 316L and 304L
Filter	Stainless steel
others	Glass, Ni, NiFe, stainless steel
Maximum power consumption	1 W
Supply voltage	15 to 30 V DC
Output signal	1.9 to 10.0 V, compatible to Leybold TTR series
Ordering Information	
THERMOVAC TTR 91 R DN 16 KF	Cat. No. 230049V01
Replacement tube - TTR 91 R DN16 KF	Cat. No. E02601801
Controller types DISPLAY ONE / TWO /THREE GRAPHIX ONE / TWO / THREE	Cat. Nos. 230 001 / 230 024 / 230 025 230680V01 / 230681V01 / 230682V01
Connection cables Type A, FCC 68 (RJ 45) at both ends, eight-way shielded 5 m / 10 m / 20 m	Cat. Nos. 124 26 / 230 012 / 124 28

For detailed information and the entire product range, please refer to our full line catalog or contact us.
Visit our webshop www.leyboldproducts.com.

