

### **COMBIVAC Series**

Controller for passive sensors in demanding industrial and research applications



Measuring range: 1x10<sup>-9</sup> - 1000 mbar

Measuring range: 1x10<sup>-12</sup> - 1000 mbar

# Monitoring and control across the entire vacuum pressure range between 10<sup>-12</sup> and 1000 mbar

By combining two principles of measurement (THERMOVAC and PENNINGVAC) the COMBIVAC CM 51 performs vacuum pressure measurements and control within the entire range of 10<sup>-9</sup> and 1000 mbar.

The COMBIVAC 52 covers the entire range of vacuum pressures from 10<sup>-12</sup> to 1000 mbar by combining two UHV principles of measurement (THERMOVAC and IONIVAC).

### **Customer Benefits**

- Compact three channel measuring instruments for passive sensors
- Vacuum pressure measurement from 10<sup>-12</sup> 1000 mbar
- Automatic switchover and high voltage control from THERMOVAC to PENNING (CM 51), and from THERMOVAC to IONIVAC (CM 52)
- Connection of adjusted, temperature compensated THERMOVAC sensors
- Connection of compact, bakeable and rugged PENNING, resp.
  IONIVAC vacuum gauge heads
- High sensor reliability and lifetime
- Cost-effective replacement sensors and electrodes
- Error message per channel, in case of a broken filament, defective sensor line or failed plasma discharge, for example
- Compact, installable benchtop housing (1/4 19-in., 3 HU) on request
- Cable length up to 100 meters possible
- RS 232/485 and Profibus interfaces
- CE and RoHS compliant

## Leybold

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### **Typical Applications**

- Process industry
  - Rough or corrosive industrial conditions
  - Universal monitoring of high vacuum pump system operation
  - Annealing, melting, brazing or hardening furnaces
  - coating systems
- Research applications
  - Particle accelerators
- Surface analysis

**Technical Data** 

- Tunnel microscopy
- Radiation-resistant and bakeable systems
- Molecular beam epitaxy (MBE)

### **Connectable Sensors**

Sensors for COMBIVAC CM 51/CM52:

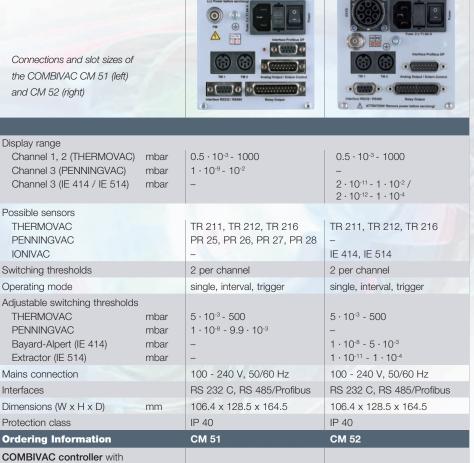
- THERMOVAC models
  - TR 211 to TR 216
- PENNINGVAC models (CM 51)
  - PR 25 to PR 27
  - PR 28, bakeable to 200 °C

Sensors for COMBIVAC CM 52:

- IONIVAC models (CM 52)
  - IE 414, bakeable to 350 °C

CM 52

- IE 514, bakeable to 350 °C



CM 51

For detailed information please refer to our full line catalog or contact us.

EURO and US mains connection cable (2 m) and interfaces:

RS 232 C/485 // or Profibus



Cat. No. 230 110 // 230 111





230 115 // 230 116