Gravimetric Measurement System GMS 141

Gravimetric Measurement System GMS 141 with absolute filter holder for blank sheets and cartridges

Oily blow-by gases out of the crankcase affect the life time of parts of the engine and of the intake as well as the emission of a motor vehicle. Therefore, oil mist separators are basic components of a crank case ventilation system.

The Topas gravimetric measurement system GMS 141 allows the comfortable detection of oil content in blow-by after oil mist separators with a filter blank sheet or filter cartridge directly on engines or engine test stands.

The measuring device combines a simple and rugged assembly with an economic low-cost manual application and handling. The device is controlled in a web browser.

Applications
• Determination of the blow-by oil content
• Gravimetric benchmark of oil mist separators for crank case ventilations in combustion engines
• Calibration of aerosol generators and aerosol photometers

Special Advantages
• Time-saving reproducible detection of oil content after oil mist separator in blow-by of combustion engines
• Heatable absolute filter box in order to avoid condensation (up to 120 °C)
• Installation of different absolute filters possible. Selection by flow rate and filter charging:
  • Filter blank sheet with d = 110 mm or
  • Filter cartridge with d = 65 mm, L = 93 mm
• Two independent sections: bypass and measuring. Running up to the working point over bypass section and measuring over measuring section. Prevention of undesirable filter charging.
• Switching between both sections with pneumatic ball valves; feature: manual or automatic switching (by default time or differential pressure)
• Display of blow-by measuring data
  • Differential pressure at absolute filter (information about filter charging)
  • Blow-by and absolute filter temperature
• Easy to use, rugged, space-saving design
• Convenient device control with web browser
• Monitoring of measuring values by TCP/IP interface

Schematic diagram of the GMS 141
Specifications

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Technical Data

Flow rate up to 300 l/min (18 m³/h)
Installation In-line
Differential pressure measuring range at filter box -50...50 hPa
Pipe connection diameter DN 28 mm
Dimensions of absolute filter
- Filter blank sheet: Ø 110 mm (effective Ø 100 mm / filter area: 78.5 cm²)
- Filter cartridge: Ø 65 mm, L = 93 mm filter area: 679 cm²
Aerosol contacted materials Stainless steel, aluminium, Viton (FKM)
Heatable filter box < 120 °C (adjustable)
I/O-System Analog and digital out-/ input, PC connection via TCP/IP
Compressed air supply 5...8 bar
Power supply 230 V AC, 50/60 Hz, 3 x 200 W, 3 A
Dimensions W x D x H 520 x 240 x 350 mm
Weight 14 kg

QMS certified to DIN EN ISO 9001.

For more information please visit our website at www.topas-gmbh.de

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