Print View

MFP 3000 G

Version for testing filter media better than EN 779 room air filters

Description

Version MFP 3000 G is especially tailored to the requirements of the ISO 16890 measurement procedure. **Aerosol generation with RBG 1000 G (loading) and PLG 1000 and LSPG 16890 (fractional separation efficiency measurement):** The dosing air for the RBG 1000 G solid particle aerosol generator and for the PLG 1000 liquid aerosol generator and and LSPG 16890 salt aerosol generator are regulated with a mass flow controller. This ensures the same operating conditions are always maintained. **DLB 2000 compressed air humidifier for the dispersion air:** Dry compressed air is normally used for aerosol generation, whereby, at the very low volume flows in filter media testing, the rel. humidity of the test volume flow can drop considerably. The DLB 2000 compressed air humidifier can condition the rel. humidity and temperature of the RBG 1000 dispersion air precisely to the required values and thus minimises the influence of rel. humidity on the dust holding capacity to be measured. **Aerosol inlet and aerosol neutralization on MFP 3000 G:** The aerosol inlet on the MFP 3000 G is equipped with a corona discharge to neutralize the test aerosol and ensures a homogeneous distribution of the test aerosol in the raw gas channel. The simple construction allows rapid replacement of the aerosol generator and the raw gas channel is easy to clean.special aerosol inlet allows simultaneous connection of both aerosol generators, such that the test sequence can be performed largely automatically. **welas® 2300 aerosol sensors:** The welas® 2300 high concentration sensors ensure unambiguous and coincidence-free fractional separation efficiency and very good count statistics with DEHS. These sensors are also fitted with a special aerosol guide that minimises contamination of the internal optics. **Software:** In the sequence program for the ISO 16890 measurement procedure, the individual test steps - differential pressure measurement, fractional separation efficiency measurements - and the various differential pressure levels can be set for loading in accordance with ISO 16890 requirements. The clear definition of the test parameters in the pre-programmable sequence programs ensure very high level comparability of the results. The evaluation and creation of the test record in accordance with ISO 16890 is included in the software supplied.

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Benefits

- Virtually simultaneous particle measurement in the raw gas and clean gas
- Particle size measurements from 0.2 – 40 µm
- Measurement of $C_{n\ max}$= 4x10^4 particles/cm^3 without dilution
- Internationally comparable measurement results
- Widespread distribution of the measurement system
- High reproducibility of the testing method
- Easy use of different test aerosols, e.g. SAE Fine and Coarse, NaCl/KCl, DEHS
- Highest raw gas concentrations of up to > 70 mg/m^3 (ISO Fine) or > 300 mg/m^3 (ISO Coarse) with measurement of the fraction separation efficiency for burden tests
- Flexible filter test software FTControl
- Sequence programs for pressure loss measurements, measurements of fraction separation efficiency and burden measurements
- Easy to operate, even untrained personnel can be instructed quickly in the use of the equipment
- Short set-up times
- Cleaning and calibration can be performed autonomously by the customer
- Easy use of the measurement technology components – even in other applications
- Mobile setup, easy to move on castors
- Reliable operation
- Validation of the clear function of individual components and the overall system during pre-delivery acceptance testing and upon delivery
- Low-maintenance
- The unit will reduce your operating costs

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Datasheet

Parameter	*Description*
Measurement range (size)	0.2 – 40 µm
Volume flow	1 – 35 m^3/h (suction mode)
Dimensions	680 • 2,500 • 1,550 mm (W • H • D)
Inflow velocity	5 – 100 cm/s (others on request)
Differential pressure measurement	0 – 5,000 Pa
Test area of the medium	100 cm^2
Aerosols	Dusts (e. g. SAE dusts), salts (e. g. NaCl, KCl), liquid aerosols (e. g. DEHS)
Aerosol concentrations	For SAE Fine without additional dilution up to 1,000 mg/m^3 (ISO A2 Fine)
Compressed air supply	6 – 8 bar

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Applications

- Testing of filter media and small filter elements in product development and during production monitoring.
- Testing option based on ISO 16890 (General ventialtion air filters), the test procedure according to ASHRAE 52.2 or EN 779 is optinal available.

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