

Control

MFS-09

Differential pressure-controlled filter controller

1. Features

The Filtration Group MFS-09 filter controller reduces the number of cleaning cycles to a necessary minimum compared to the simple time control principle. It facilitates a longer cartridge service life, improved cleaned air values, smaller variations in the volume of exhaust air and lower costs for compressed air.

The filter controller can be operated in seven different modes:

1. Differential pressure related cleaning
2. Variable break time (dp-related)
3. Time controlled cleaning
4. Pressure switch function
5. Post cleaning
6. After-run time for discharge argans
7. Cycle counting (option)

Characteristics

- Differential value free selectable 0 bis 10 ... 100 mbar
- Digital display of the and current valve
- Exact setting of pulse and break time
- 2 free selectable dp alarms (min./max.)
- 15 LED for operating and fault display
- Flexible selection of functions by menu control, input by 4 buttons
- Optocoupler input for stop, post cleaning, fault acknowledgement and pressure switch
- 3 free selectable relay outputs for operating and fault display
- RS 485 port
- Worldwide distribution



2. Technical data

Housing

Material: Makrolon
Design: Dust-tight, max. 10 PG-boltings possible,
ATEX Ex II 3D T60°C

Protection class: IP 65

Operating temperature: 0 - 50 °C

Climatic category: KWF acc. DIN 400040
(≤ 75 % relative humidity,
no condensation allowed)

Control elements: 4 pushbuttons

Displays

Operation: 7 segment display (2 decimal places), 6 LEDs

Δp regulator 7 segment display (4 decimal places), 5 LEDs

General: 4 LEDs

Electrical data

Electrical

connection: Terminal strip 2.5 mm²

Voltage (primary): DC 24V, AC 115 V/50-60 Hz,
AC 230 V/50-60 Hz

Tolerance: ± 10 %

Power: 30 W/30 VA

Mains fuse: 3.15 A time-lag/0.315 A time-lag

Valve outputs: 12 (extendable to 24)

Valve voltage: DC 24 V

Tolerance: ± 10 %

Valve current: 1 A (for pulse time ≤ 1 s and
interval time ≥ pulse time, otherwise 0.5 A)

Analogue output: 0 (4) ... 20 mA

Relay outputs: 3 relay change-over contact, AC 24 V, 5 A

Inputs: Stop

Post-cleaning

Fault acknowledgement (Reset-Hold)

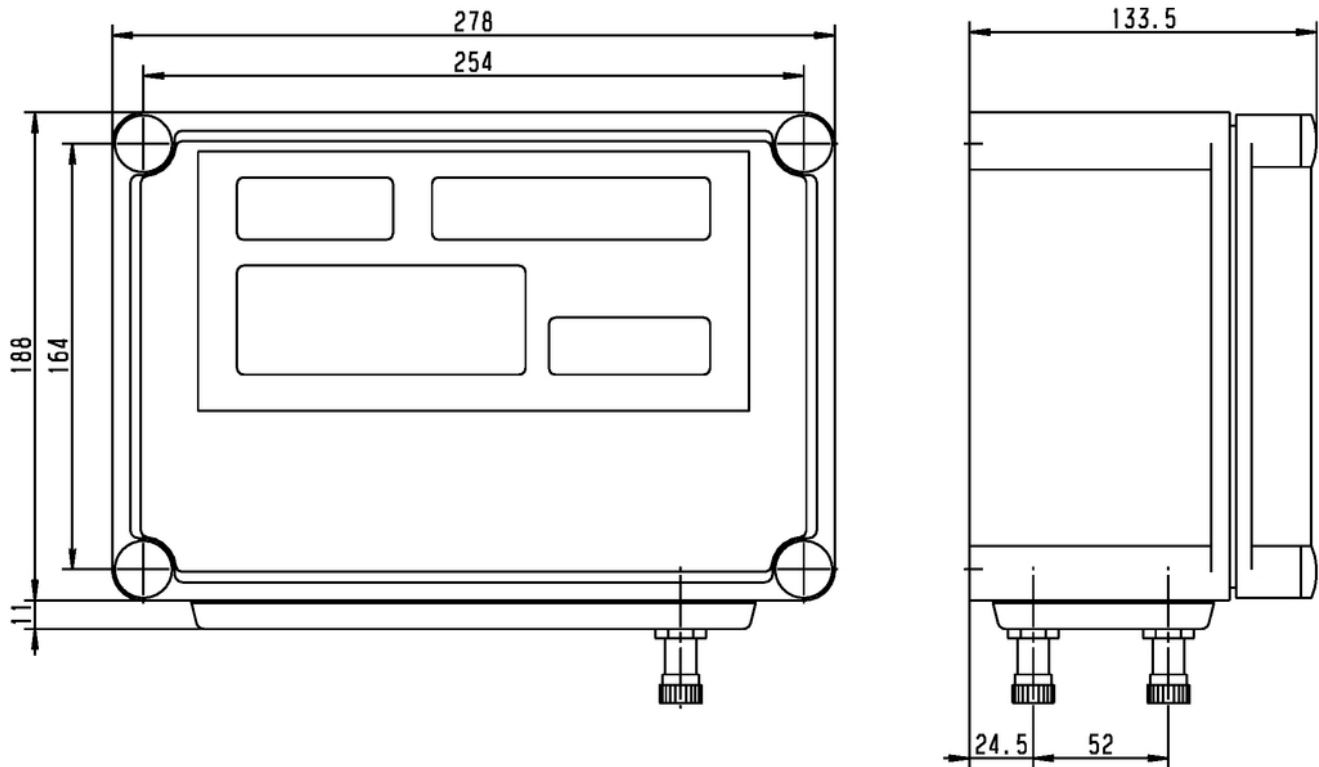
Pressure switch

Technical data is subject to change without notice!

3. Order numbers

Order number	Type designation
76109490	MFS-09 DC 24 V, 12 valve outputs
76109508	MFS-09 DC 24 V, 24 valve outputs
76109474	MFS-09 AC 115/230 V, 50-60 Hz, 12 valve outputs
76109482	MFS-09 AC 115/230 V, 50-60 Hz, 24 valve outputs

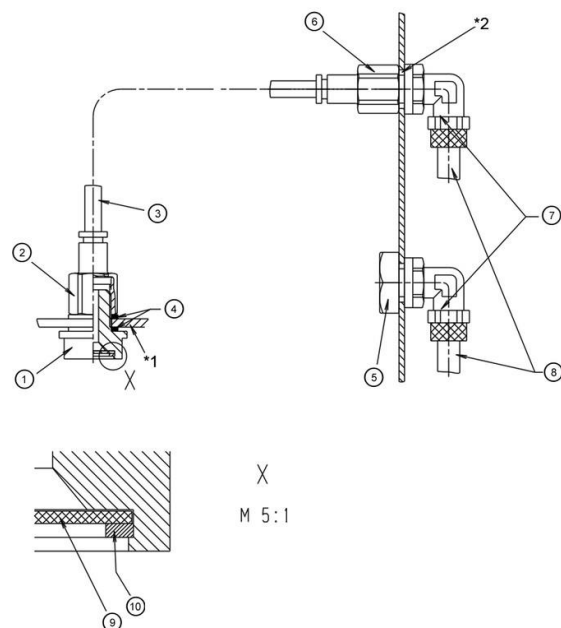
4. Dimensions



5. Instrument lead set

A set comprising a pressure sensor and instrument lines can be supplied for measuring the differential pressure. Dust protection in the form of a membrane filter is provided at the measuring point for the dirt air. Dirty instrument lines can lead to errors and breakdowns.

Item	Designation
①	Nipple G $\frac{1}{4}$, a/f 21
② ⑥	Screw on fitting R $\frac{1}{4}$ OD6, a/f 16
③	Plastic hose PU-4 black, approx. 2 m
④	Sealing ring PVDF
⑤	Pipe nut DIN 431-A-G $\frac{1}{4}$ - 14H
⑦	2x angular screw joint R $\frac{1}{4}$ OD8
⑧	Compressed air hose PU-6 blue, approx. 1.5 m
⑨	Membrane filter
⑩	Snap ring 15x1 DIN 472



*1 = bore Ø 13.5 mm in the filter plate

*2 = bore 2x Ø 14 mm in the housing

6. Accessories

Order number	Designation
76109730	Instrument lead set for dp sensor MFS-09
76186605	Replacement fuses for MFS-09 24 V, 3.15 A time-lag (pack of 5)
76186597	Replacement fuses for MFS-09 115/230 V, 0.315 A time-lag (pack of 5)

7. Default settings

The controller is delivered with a default setting to facilitate optimum in almost any application. This setting should be checked when the controller is started up for the first time. A service engineer can be called in if necessary to alter the setting in the field.

Comprehensive documentation on our product range, cleaning units and cartridges can be provided.

For more information about installation and operation, please refer to our Instruction Manual.