

## Control

### MFS-05 dp

Differential pressure-controlled filter controller

#### 1. Features

The Filtration Group MFS-05 dp 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 gas values, smaller variations in the volume of exhaust air and lower costs for compressed air. The filter controller can be operated in three different modes:

1. Interval time control: Cyclic cleaning with a variable interval time (time between two cleaning cycles) according to dp
2. Switching threshold control: A cleaning cycle is tripped when settable dp threshold is reached
3. Time control: Cyclic cleaning with a fixed interval time

#### Characteristics

- Inexpensive, compact design
- Settable number of cleaning cycles when the dp threshold is reached
- Remote signalling by three defined relays: Operation/fault, cleaning and settable dp alarm
- Cleaning through potential free contact
- Instant cleaning with test switch
- Remote access to parameters via an RS 485 port (read only) possible
- Digital dp display (0 - 40 mbar)
- Worldwide distribution



## 2. Technical data

### Housing

<b>Material:</b>	ABS
<b>Design:</b>	Dust-tight, max. 3x M32/M20 possible, ATEX Ex II 3D T60°C
<b>Protection class:</b>	IP 65
<b>Operating temperature:</b>	0 - 50 °C
<b>Climatic category:</b>	KWF acc. DIN 400040 (≤ 75 % relative humidity, no condensation allowed)

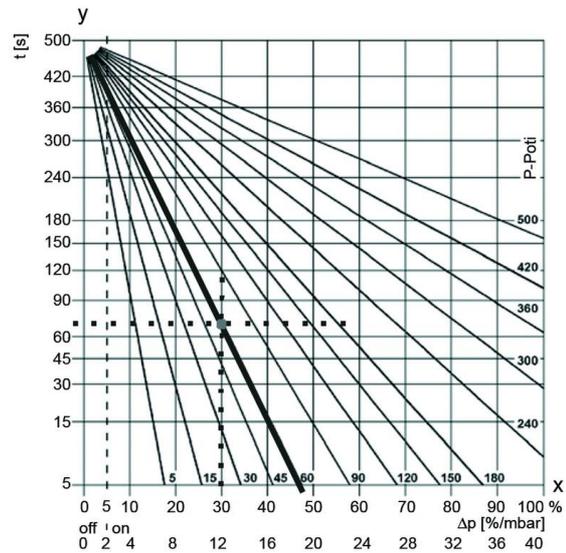
### Control lamp

<b>Operation:</b>	LED green
<b>Cleaning:</b>	LED yellow
<b>Fault:</b>	LED red
<b>Valve display:</b>	LED red
<b>Alarm threshold:</b>	LED red

### Electrical data

<b>Electrical connection:</b>	Terminal strip 2,5 mm <sup>2</sup> /valve 1
<b>Voltage (primary):</b>	DC 24V, AC 230 V/50-60 Hz
<b>Tolerance:</b>	± 10 %
<b>Power:</b>	42 W/30 VA
<b>Mains fuse:</b>	3.15 A time-lag, 0.315 A time-lag
<b>Valve outputs:</b>	12 (extendable to 24)
<b>Valve voltage:</b>	DC 24 V
<b>Tolerance:</b>	± 10 %
<b>Valve current:</b>	1 A (for pulse time ≤ 1 s and interval time ≥ pulse time, otherwise 0.5 A)
<b>Relay outputs:</b>	Pin wiring DC 24 V/0.3 A, AC 250/5 A
<b>Analogue output:</b>	0 (4) ... 20 mA
<b>Inputs:</b>	Start or dp input Enable (contact closed)/ Stop (contact open) Post-cleaning Instant cleaning Fault acknowledgement (button)

Technical data is subject to change without notice!



### Controller characteristics

x = dp measuring range [%/mbar]

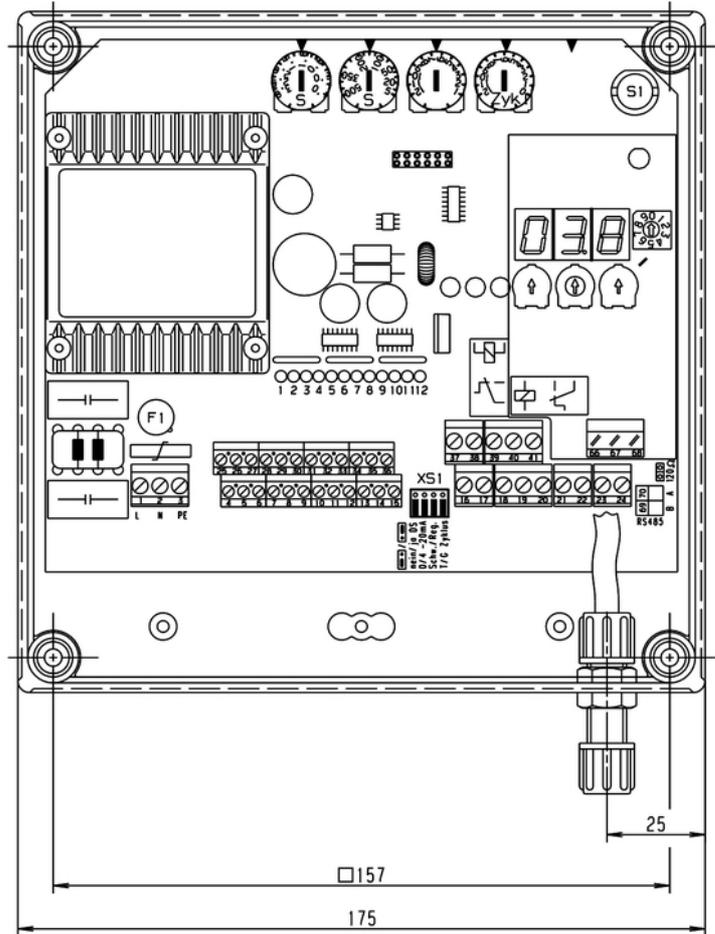
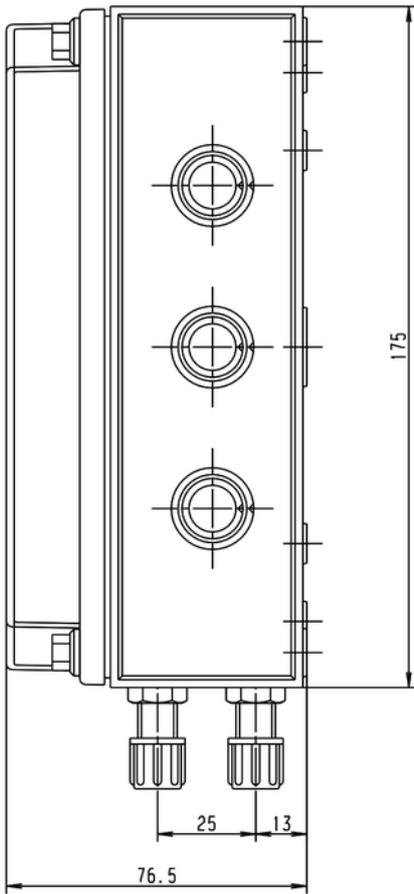
y = interval time t [s]

P-Poti = interval time potentiometer

## 3. Order numbers

Order number	Type designation
76341846	MFS-05 dp DC 24 V, relay
76341838	MFS-05 dp AC 230 V, 50-60 Hz, relay

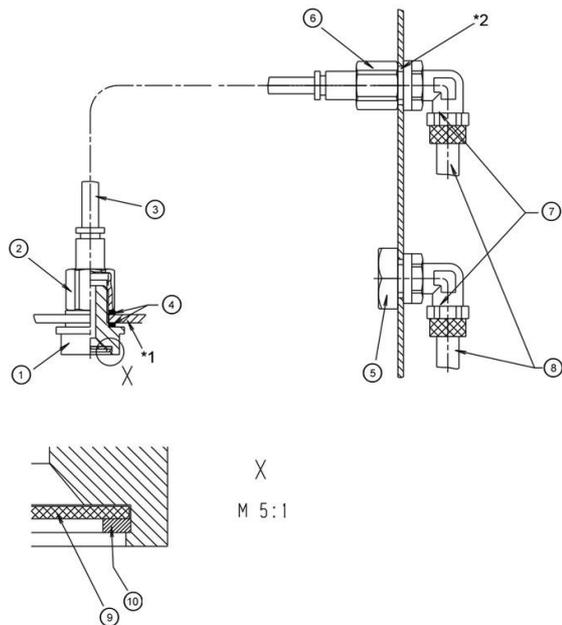
#### 4. Dimensions



#### 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 raw gas. Dirty instrument lines can lead to errors and breakdowns.

Item	Designation
①	Nipple G $\frac{1}{4}$ , a/f 21
② ⑥	Screw nut 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  $\varnothing$  13.5 mm in the filter plate

\*2 = bore 2x  $\varnothing$  14 mm in the housing

## 6. Accessories

Order number	Designation
76109664	MFS-05 extension
79759846	Instrument lead set for dp sensor
76186605	Replacement fuses for MFS-05 dp 24 V, 3.15 A time-lag (pack of 5)
76186597	Replacement fuses for MFS-05 dp 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 for our product range, cleaning units and cartridges can be provided.

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