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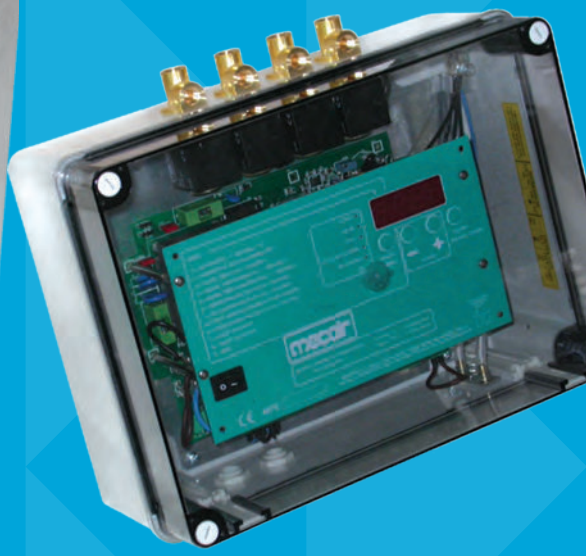

mecair MPS AND MPS PR1¼"

16 OUTPUT DEMAND CONTROLLER

PENTAIR CLEAN AIR SYSTEMS

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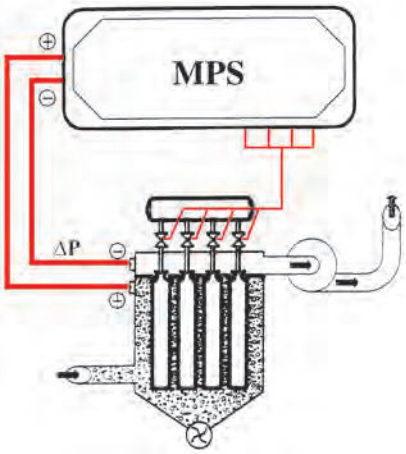
PENTAIR

MECAIR 16 OUTPUT DEMAND CONTROLLER

MPS



DESCRIPTION

The Model "**MPS**" has been designed to guarantee the control of diaphragm valves mounted on pulse-jet dust collector filters containing filter bags or cartridges. The main function of the MPS is to ensure the filter is cleaned only when it exceeds the set ΔP. All the technical characteristics comply with the CE Directive. The MTS-PR¼" conforms to the European Directive (89/336 EEC and 93/68 EEC).

Upon request it is possible to supply the unit in accordance to the European Directive EC/94/9 ATEX, ATEX II 3D (zone 22).

The MPS sequencer is available in the following versions: MPS4, MPS8, MPS12, MPS16.

The MPS unit visualises all the values set, via a digital display (Operating ΔP, pulse time, pause time, number of shut-down cleaning cycles).

The pause time used when in shut-down cleaning mode is the same as the pause time set when in manual mode.

The MPS unit also has the "PRECOATING" function, which allows the user to set a higher value of ΔP than normally required. (This is normally possible only once when the filter is new or when the filtering elements are new.) This function is used in filters where it is necessary to ensure that the filtering elements absorb special reagents which act as a further protection. By setting a higher ΔP value (Precoating ΔP value), it allows the filtering elements to properly absorb the reagents injected into the filter. Once the Precoating ΔP value has been reached, the pulsing will commence and will cease once it reaches the normal operating DP value. This value will no longer be considered in the normal functioning of the filter.

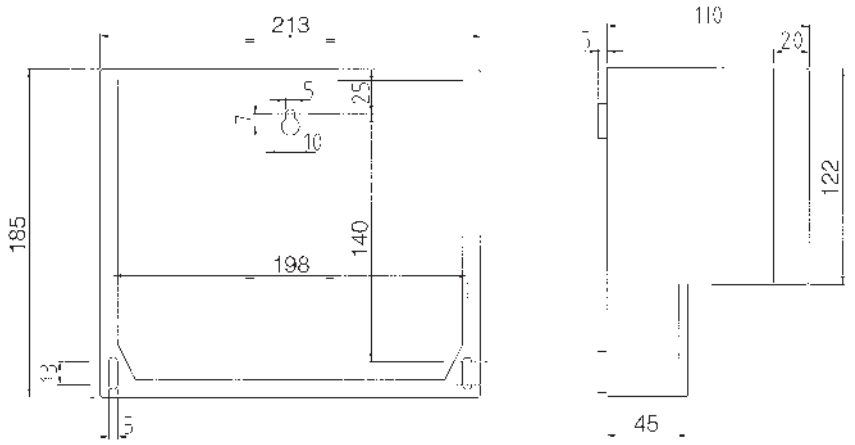
MAIN FEATURES

- Operates in MANUAL or AUTOMATIC (ΔP) mode
- Automatic start-up of cleaning cycle according to set ΔP
- SHUT-DOWN CLEANING with selectable number of cleaning cycles
- PRECOATING function for new filters or filters equipped with new filtering elements
- REMOTE function
- ALARM contact enabling connection to external alarms
- HOUR COUNTER
- ΔP value playback (option)
- 4–20 mA ΔP output (optional)

MECAIR 16 OUTPUT DEMAND CONTROLLER

MPS

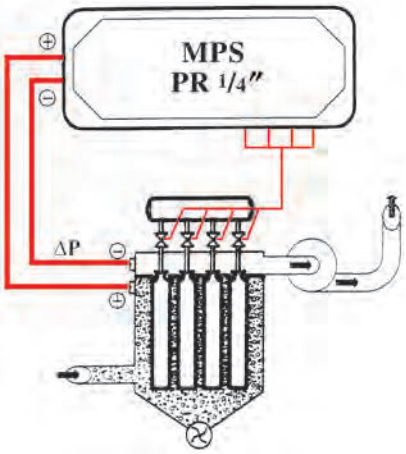
DIMENSIONS MPS 4–16 (mm)



TECHNICAL CHARACTERISTICS		
Enclosure	ABS grey – transparent cover	
Protection rating	IP65	
Dimensions	MPS 4-8-12-16 outlets: enclosure 213 × 185 × 133 mm	
Weight	Approx 2 kg	
Connections	Terminal blocks – max. section 2,5 mm²	
Temperature	Storage: –20°C/+80°C Operation: –10°C/+50°C, with duty cycle (intermittent) 30%	
Power inlet	Standard: 115/230 V AC (±10%), 50/60 Hz (Selectable via jumpers)	Optional: 24/48 V AC (±10%), 50/60 Hz
Outlet power	* Standard: 24/115/230 V AC – 50/60 Hz (In and Out upon Request) IN – OUT 24 V DC	Optional: 48 V AC
Absorbed power	Without outlet: 25 V A – 20 W	
Relay	2 A – 250 V AC	
Main fuse	500 mA – delayed 115/230 V	2 A delayed 24/48 V
Pulse time	0,01–9.99 sec.	
Pause time	1–999 sec.	
Pause time in automatic	1–999 sec.	
Operating ΔP	0.01–2.50 kPa	
Set alarm ΔP	0.01–2.50 kPa	
Shut-down cleaning	0–99 cycles	
Remote control	To be operated from a non-powered external contact (normally open).	
ΔP precoating	0.01–2.49 kPa	
Hour counter	0–65.999 hours	

MECAIR 16 OUTPUT DEMAND CONTROLLER

MPS PR¼″



DESCRIPTION

The Model **MPS PR¼″** – 24/DC″ economiser is an integrated model which incorporates the remote pilot valves, model PR¼″, which can be pneumatically connected to the diaphragm valves type "VEM" rather than with electrical connections.

This version has been designed to guarantee the control of diaphragm valves mounted on pulse-jet dust collector filters containing filter bags or cartridges.

All the technical characteristics comply with the CE Directive. The MPS PR¼″ conforms to the European Directive (89/336 EEC and 93/68 EEC).

Upon request it is possible to supply the unit in accordance with the European Directive EC/94/9 ATEX, ATEX II 3D (zone 22).

The pilots are mounted within the enclosure, are pre-wired and have a ¼″ Gas female thread to be used for the pneumatic connections between the remote pilot and the diaphragm valve.

The MPS PR¼″ is available from a minimum of 2 pilot valves to a maximum of 16 pilot valves mounted within the enclosure.

MAIN FEATURES

- Automatic start-up of cleaning cycle according to set DP
- Remote pilot valves (brass) pre-wired in enclosure complete with electronic economiser controller
- PRECOATING function for new filters or filters equipped with new filtering elements
- Operates in MANUAL or AUTOMATIC (ΔP) mode
- SHUT-DOWN CLEANING with selectable number of cleaning cycles
- REMOTE function
- ALARM contact enabling connection to external alarms
- HOUR COUNTER
- DP value playback (option)
- 4–20 mA ΔP output (optional)

GENERAL CHARACTERISTICS	
Fluid	Air dry and oil free
Air inlet	¼″ Gas
Operating pressure	From 0.5 to 7.5 bar
Exhaust	⅛″ Gas

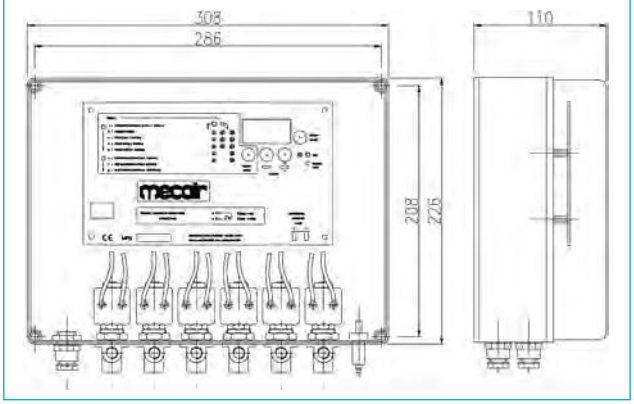
CONSTRUCTION CHARACTERISTICS	
Pilot body	Brass
Pilot	Brass
Lock nut	Zinc plated
O-ring	NBR

MECAIR 16 OUTPUT DEMAND CONTROLLER

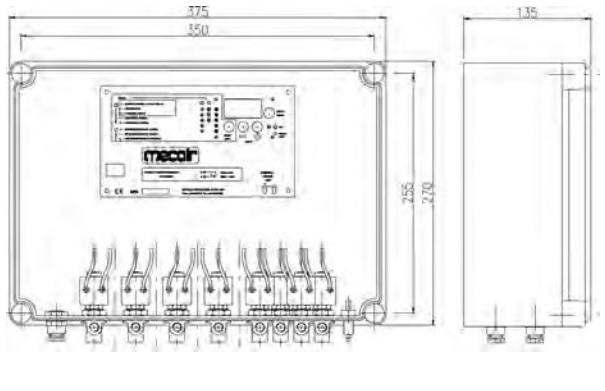
MPS PR¼"

DIMENSIONS

SEQUENCER MPS2–6 - PR¼"



SEQUENCER MPS7–12 - PR¼"



TECHNICAL CHARACTERISTICS		
Enclosure	ABS grey – transparent cover	
Protection rating	IP65	
Connections	Terminal blocks – max. section 2,5 mm²	
Temperature	Storage: –20°C/+80°C Operation: –10°C/+50°C, with duty cycle (intermittent) 30%	
Power inlet	Standard: 115/230 V AC (±10%), 50/60 Hz (Selectable via jumpers)	Optional: 24/48 V AC (±10%), 50/60 Hz
Absorbed power	Without outlet: 25 V A – 20 W	
Relay	2 A – 250 V AC	
Main fuse	500 mA – delayed 115/230 V	2 A delayed 24/48 V
Pulse time	0.01–9.99 sec.	
Pause time in manual	1–999 sec.	
Pause time in automatic	1–999 sec.	
Operating ΔP	0.01–2.50 kPa	
Set alarm ΔP	0.01–2.50 kPa	
Shut-down cleaning	0–99 cycles	
Remote control	To be operated from a non-powered external contact (normally open).	
ΔP precoating	0.01–2.49 kPa	
Hour counter	0–65.999 hours	

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Mecair 16 Output Demand Controller EU Compliant Rev02 02/15