

CONTROLPRO

CONTROL PANEL + HMI

ControlPro is an intelligent platform that controls a filter system MDB PRO or SCS PRO and the connected extraction fan. It contains an extensive feature package to monitor and arrange the RamAir™ pulse amplifier (filter cleaning system), the required airflow and the corresponding fan speed. By means of the user-friendly HMI you can program all desired parameters. The HMI gives a clear insight into the system status and performance at all times.

ControlPro allows for remote access via a network connection.





SPECIFICATIONS

ControlPro/Panel	
Physical dimensions and properties	
Material (housing)	sheet metal
Dimensions	400 x 400 x 210 mm (15.7 x 15.7 x 8.3 in.)
• incl. switches and cable glands	• 435 x 425 x 240 mm (17.1 x 16.7 x 9.4 in.)
Weight (net)	11 kg (24 lbs.)
Protection class	IP 65
Inputs	
8x	digital input (10 mA wetting current)
3x	analogue input (4-20 mA)
Outputs	
2x	relay output (max. 30 VDC, 2,5 A)
2x	output "low-side switch" (24 VDC, 2,5 A)
1x	output "low-side switch" (24 VDC, 250 mA)
4x	output "low-side switch" (24 VDC, 30 mA)
1x	analogue output (4-20 mA)
Internal connectors	
2x	CAN + power (ControlPro/HMI & Control/SlaveBoard)
1x	RS-485 (Modbus) to frequency inverter (19200,8N1)
1x	USB 2.0 (host only, USB A receptacle)
1x	ethernet (for service purposes)
1x	RS-232 (for service purposes)
Internal pressure sensors	
2x	integrated pressure sensor Working range 0-4000 Pa (0-16 in. WG)
Electrical data	
Input voltage	100-240 VAC, 50-60Hz
Internal operating voltage	24 VDC
Power consumption	max. 60W

Ambient conditions		
Operating temperature:	Pressure sensors:	
	internal:	external:
	• min. 0°C (32°F)	-20°C (-4°F)
• nom. +20°C (68°F)	+20°C (68°F)	
• max. +50°C (122°F)	+50°C (122°F)	
Max. relative humidity	80%	
Outdoor use allowed	yes	
Storage conditions	• -20-50°C (-4-122°F) • relative humidity max. 80%	
Guidelines & standards		
EMC 2014/30 EU	LVD 2014/35 EU	
EN 61000-6-2	IEC 60204-1	
EN 61000-6-4	IEC 61131-2	
	IEC 61439-1	
Approvals & certificates		
CE		
cUL US		ref. UL-508A

ControlPro/HMI	
Physical dimensions and properties	
Material (housing)	PC/ABS
• flammability standard	• UL94 V-0
Dimensions	255 x 165 x 125 mm (10.0 x 6.5 x 4.9 in.)
Weight (net)	900 g (2 lbs.)
Display:	
• size	• 7 inch
• type	• resistive touch screen
• brightness	• 300 cd/m ²
• colour	• 262K
• resolution	• 800 x 480 pixels

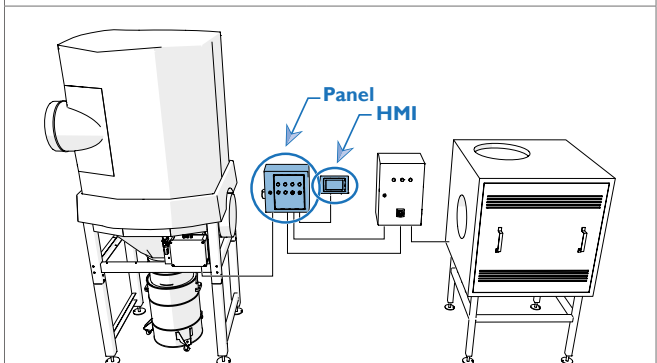
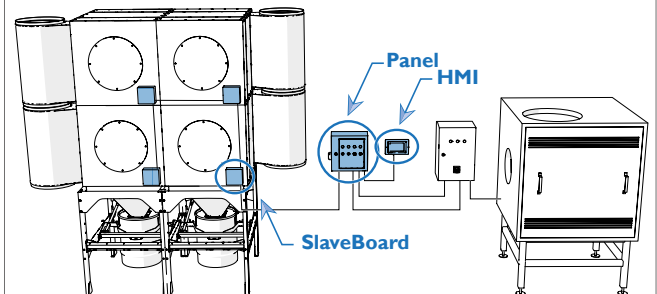
Available languages	English Dutch German French Spanish (& counting)
External connectors	
1x	CAN + power (connection to Panel) [M12-5p shielded connector]
1x	USB 2.0 (host only) [USB A receptacle, with dust cap]
1x	ethernet 10/100 Mbit/s [RJ45, shielded, with dust cap]
Electrical data	
Operating voltage	24 VDC (+/- 15%)
Power consumption	• display off: nom. 4W • display on: max. 5W
Ambient conditions	
Operating temperature:	
• min.	• 0°C (32°F)
• nom.	• +20°C (68°F)
• max.	• +50°C (122°F)
Outdoor use allowed	no
Storage conditions	• 0-50°C (32-122°F) • relative humidity max. 80%
Guidelines & standards	
EMC 2014/30 EU EN 61000-6-2 EN 61000-6-4	LVD 2014/35 EU IEC 60204-1
Approvals & certificates	
	

Control/SlaveBoard	
Physical dimensions and properties	
Material (housing)	PC/ABS
Dimensions	175 x 175 x 75 mm (6.9 x 6.9 x 3 in.)
Internal connectors	
2x	CAN + power (max. 24 VDC, 2,5A)
Electrical data	
Operating voltage	24 VDC (+/- 15%)
Current	max. 2,5 A
Ambient conditions	
<i>The ambient conditions of the MDB or SCS filter system apply</i>	
Guidelines & standards	
EMC 2014/30 EU EN 61000-6-2 EN 61000-6-4	LVD 2014/35 EU IEC 60204-1
Approvals & certificates	
	

General	
Where used	
MDB PRO	central filter system
SCS PRO	

Product combinations	
Extraction fan:	
• SIF (Outdoor)	• extraction fan
• FRAME SIF	• fan mounting frame
Fan control equipment:	
• VFD/Panel (preference)	• frequency inverter
• VFD / other type	• frequency inverter (third party)
• star-delta switch	• fan start/stop
Fire safety solutions:	SHIELD
• ShieldControl	• fire detection panel
• Sliding valves	• pneumatic shut-off sliding dampers
• 3/2 solenoid valve	• release valve
Options and accessories	
Panel to HMI cable 60 m	instead of standard 15 / 30 m
ControPro Connect	advanced web portal
i-Connect (+ Extension)	module to connect ControlPro to the web portal of Plymovent
LightTower	
PT-1000 or PT-2500	external pressure transmitter
Dustbin level indicator	switch or sensor (future development)

Scope of supply
ControlPro forms an integral part of the filter systems MDB PRO and SCS PRO



ControlPro/Panel	
Panel (control panel) Double-bit key Mounting bracket (4), incl. mounting material Pneumatic hoses (for filter & fan pressure), incl. mounting material Installation manual Electrical diagram UL compliance sticker	
ControlPro/HMI	
HMI, incl. bracket and locking screw Ethernet field connector (IP 67)	

Connection cables: Panel → HMI cable*), incl. heat shrinking tubes | Panel → SlaveBoard cable, incl. cable gland, termination plug and heat shrinking tubes | SlaveBoard → SlaveBoard cable, incl. cable glands

*) MDB-4 PRO to MDB-24 PRO: 15 m (49 ft.) | > MDB-24 PRO: 30 m (98 ft.) (option: Panel to HMI cable 60 m / 197 ft.)

Control/SlaveBoard

Integrated on MDB

Installation distances

Filter system to Panel	max. 10 m (32.8 ft.)
Panel to HMI	max. 60 m (197 ft.)

Order information

ControlPro forms an integral part of the filter systems MDB PRO and SCS PRO

FEATURES & BENEFITS

- Simple**

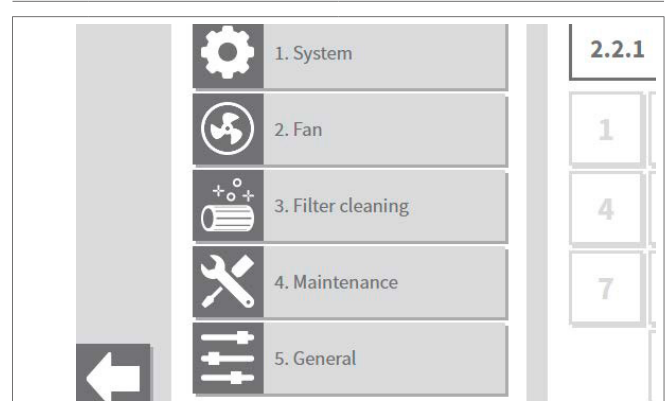
 - Simple installation, configuration and operation
 - Fully automatic operation (due to weektimer and automatic progressive filter cleaning)
 - Intuitive settings menu
- Insight**

 - ... in what the system is doing *now*
 - ... in what the system is doing *next*
 - ... in the overall system performance
- Connected**

 - Online support
 - Centralized control for multiple systems
 - Control from any mobile device



HMI with intuitive touch screen



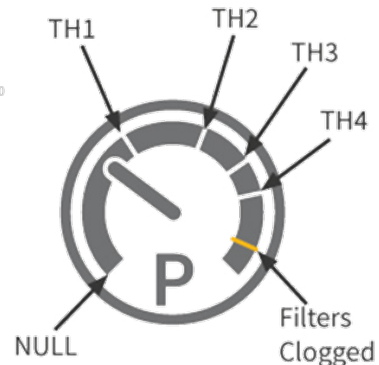
Clear and easy accessible menu structure



Preferred fan control equipment: VFD/Panel

- Allows for full communication between Panel and HMI
- Main switch to de-energize the entire filter system, thus complying with CE safety requirements

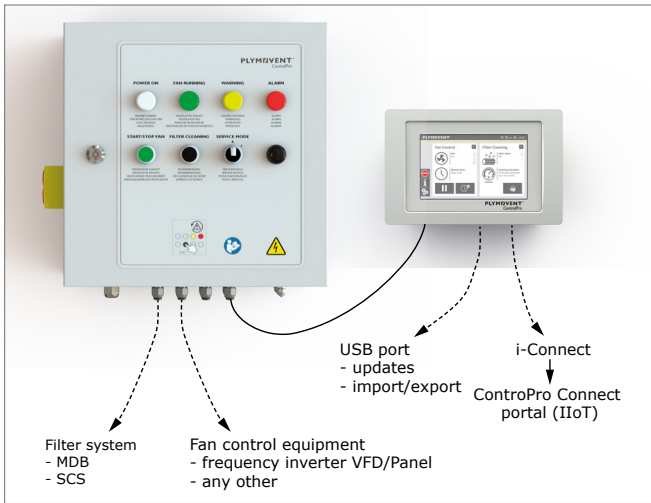
Frequency inverter VFD/Panel



Threshold value	Pressure	Offline cycles	Delay	Online cycles
MDB PRO				
1	800 Pa	2	4 h	4
2	1000 Pa	4	2 h	8
3	1200 Pa	5	1 h	12
4	1400 Pa	continuous filter cleaning		
	1300 Pa	pressure fallback		
	1600 Pa	filters clogged		
SCS PRO				
1	1000 Pa	1	4 h	2
2	1200 Pa	2	2 h	4
3	1400 Pa	3	1 h	6
4	1600 Pa	continuous filter cleaning		
	1500 Pa	pressure fallback		
	2000 Pa	filters clogged		

Automatic progressive filter cleaning (adjustable) for a longer filter life and lower operational costs

COMMUNICATION



Product type
Article no.
Product category
Version

ControlPro
n/a
control equipment
100322/E

Always check the latest version on www.plymovent.com