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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.

ControlPro/Panel



ControlPro/HMI

Control/SlaveBoard

SPECIFICATIONS

ControlPro/Panel	
Physical dimensions and properties	
Material (housing)	sheet metal
Dimensions • incl. switches and cable glands	400 x 400 x 210 mm (15.7 x 15.7 x 8.3 in.) • 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		
	Pressure sensors:	
Operating temperature: • min. • nom. • max.	internal: 0°C (32°F) +20°C (68°F) +50°C (122°F)	external: -20°C (-4°F) +20°C (68°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 EN 61000-6-2 EN 61000-6-4	LVD 2014/35 EU IEC 60204-1 IEC 61131-2 IEC 61439-1	
Approvals & certificates		
CE		
cULus	ref. UL-508A	

ControlPro/HMI	
Physical dimensions and properties	
Material (housing) • flammability standard	PC/ABS • 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 • type • brightness • colour • resolution	 • 7 inch • resistive touch screen • 300 cd/m² • 262K • 800 x 480 pixels

product data sheet

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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. • nom. • max.	 • 0°C (32°F) • +20°C (68°F) • +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	
CE	

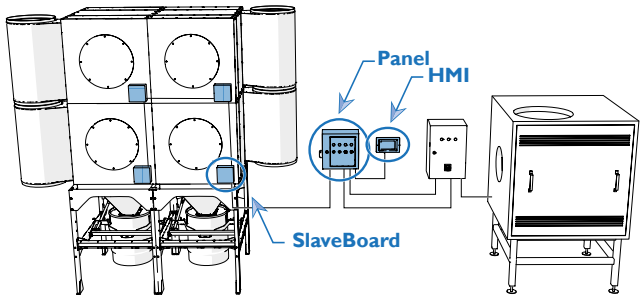
Control/SlaveBoard	
Physical dimensions and properties	
Material (housing)	PC/ABS
Dimensions	175 x 175 x 75 mm (6.9 x 6.9 x 3 in.)
Internal connectors	
2x	CAN + power (max. 24 VDC, 2,5A)
Electrical data	
Operating voltage	24 VDC (+/- 15%)
Current	max. 2,5 A
Ambient conditions	
The ambient conditions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

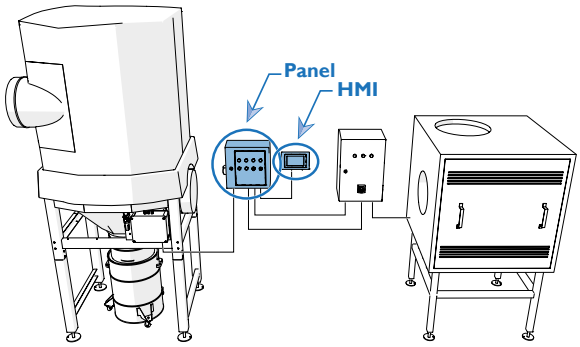
General	
Where used	
MDB PRO	central filter system
SCS PRO	

Product combinations	
Extraction fan: • SIF (Outdoor) • FRAME SIF	 • extraction fan • fan mounting frame
Fan control equipment: • VFD/Panel (preference) • VFD / other type • star-delta switch	 • frequency inverter • frequency inverter (third party) • fan start/stop
Fire safety solutions: • ShieldControl • Sliding valves • 3/2 solenoid valve	SHIELD • fire detection panel • pneumatic shut-off sliding dampers • 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)

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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

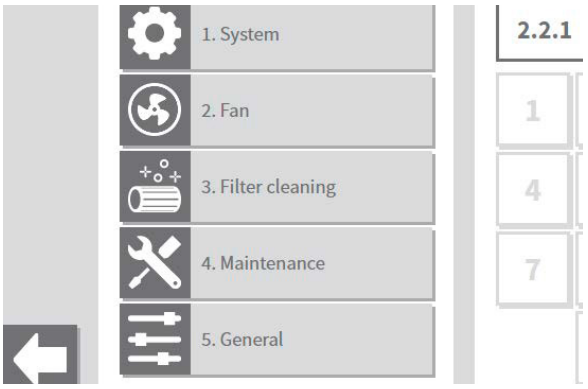
Simple
- Simple installation, configuration and operation
- Fully automatic operation (due to weektimer and automatic progressive filter cleaning)
- Intuitive settings menu

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



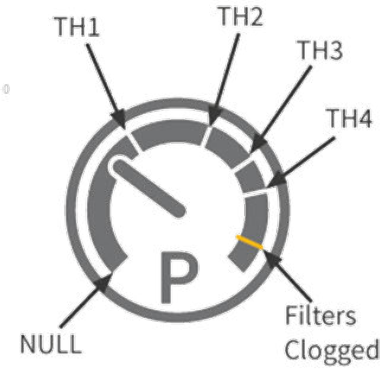
Clear and easy accessible menu structure



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

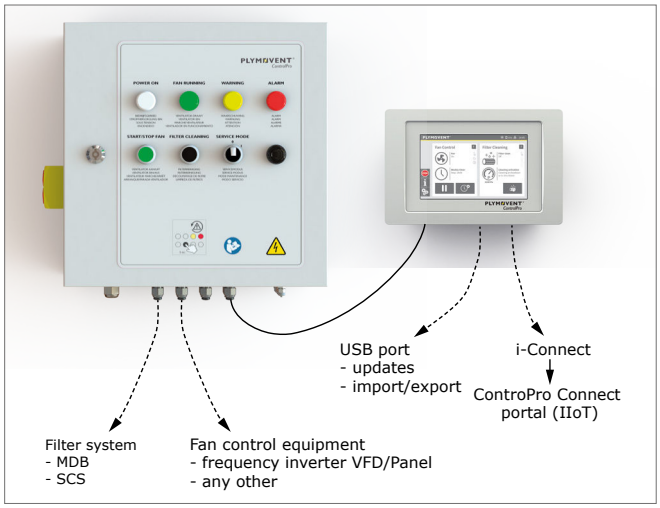


Threshold value	Pressure	Offline cycles	Delay	Online cycles
MDB PRO				
1	800 Pa	2	4 h	4
2	1000 Pa	4	2 h	8
3	1200 Pa	5	1 h	12
4	1400 Pa	continuous filter cleaning		
	1300 Pa	pressure fallback		
	1600 Pa	filters clogged		
SCS PRO				
1	1000 Pa	1	4 h	2
2	1200 Pa	2	2 h	4
3	1400 Pa	3	1 h	6
4	1600 Pa	continuous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

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

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COMMUNICATION



Product type	**ControlPro**
Article no.	n/a
Product category	control equipment
Version	100322/E

Always check the latest version on **www.plymovent.com**