

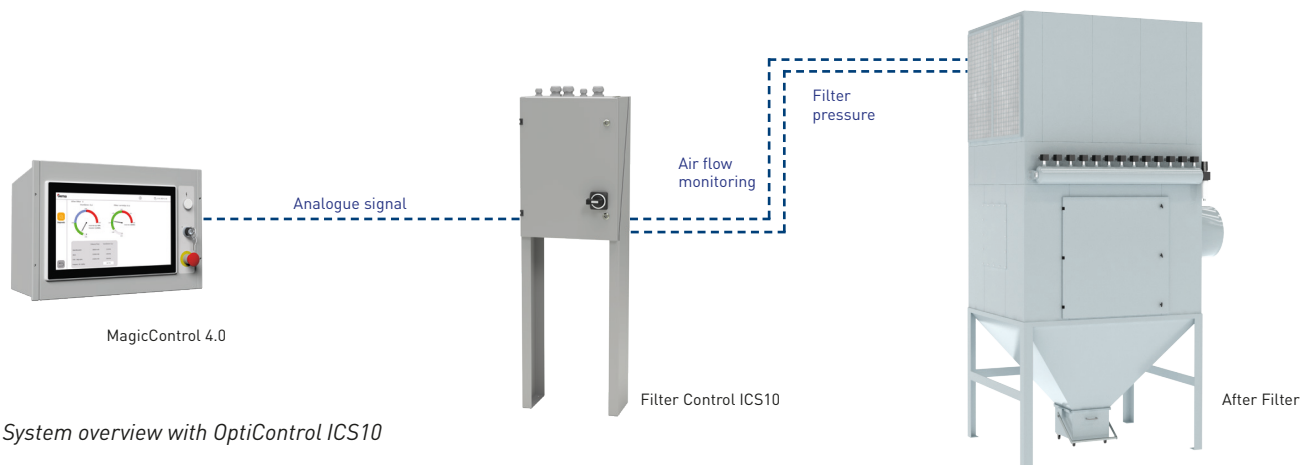
OptiControl ICS10/11

After Filter control and monitoring system

The OptiControl control cabinets (type ICS10 and 11) contain the components for the operation and monitoring of an after filter. In addition to the power supply for the fan unit, the start-up circuit and the triggering of the cleaning of the filter cartridges are integrated. The ICS10 features the components to control the aspiration volume, but does not comply with EN16985 (redundant air flow control). The ICS11 is used only for the enamel MRS booth. The filter system is operated and monitored completely via the MagicControl 4.0 main control unit.

Customer benefits:

- Air flow monitoring
- Automatic cleaning procedure controlled by filter cartridge resistance monitoring and resulting in longer filter cartridge life and reduced compressed air consumption.
- Visualization of all parameters on MagicControl 4.0
- Continuous filter parameter monitoring and alerting function for improved operation stability and constant process conditions. Historical pressure readings logged for long term data analysis.

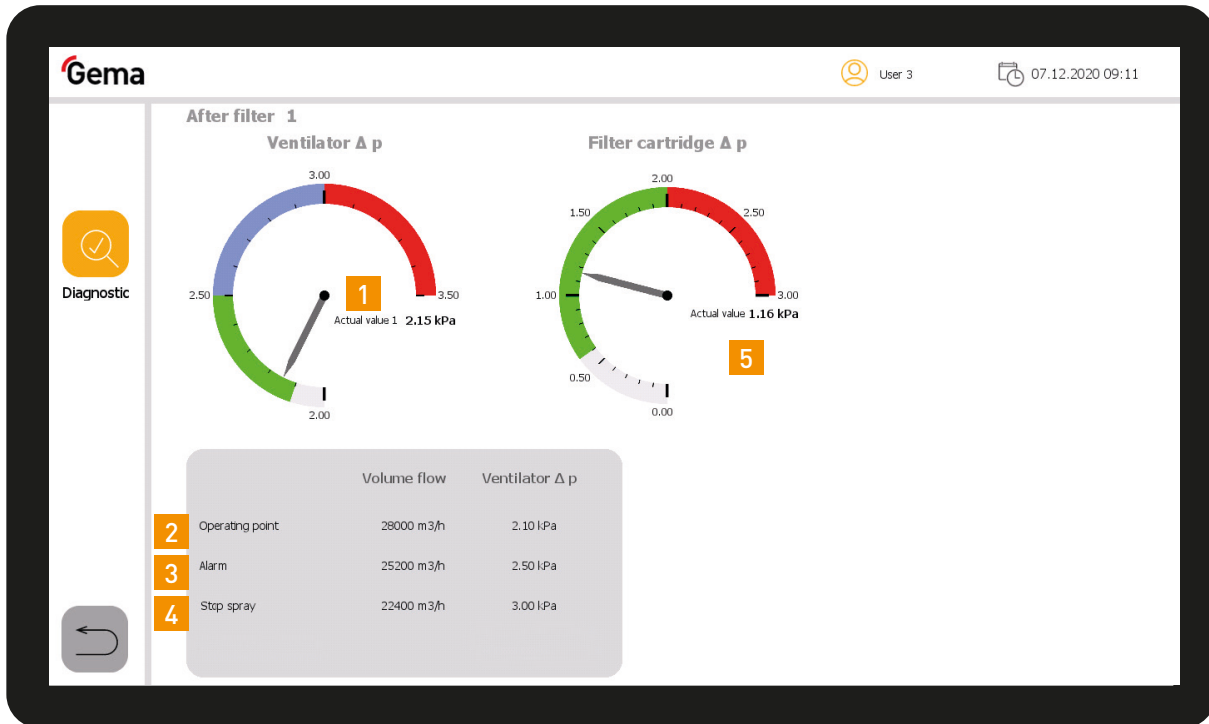


System overview with OptiControl ICS10

Features Control Cabinet:

ICS10	ICS11 (only in combination with enamel MRS booth)
After filter control with Star Delta Starter.	After filter control with Frequency Converter.
Cartridge cleaning is triggered automatically if this resistance exceeds the respective threshold.	
Visualization of the fan and filter cartridge status on MagicControl 4.0.	
For safety reasons the air flow through the fan is monitored, taking into consideration the conditions: <ul style="list-style-type: none"> • Required system operating volume flow • Low volume flow (alarm message) • Critical volume flow (Stop spray) 	
Adjusted to altitude and average temperature of the installation location.	

Visualization of the fan and filter cartridge status on MagicControl 4.0



The real time operating status of the fan and filter cartridges is continuously displayed.

Ventilator Δp

The correct and sufficient aspiration volume of the coating booth is defined by the *Ventilator Δp*: An increased pressure indicates a lower air flow. To comply with safety regulations, the powder coating process is switched off at the minimum permissible air flow. The parameters for correct operation of the filter are calculated automatically.

- 1 Actual value: display (graphically and in digits) of the currently measured differential pressure
- 2 Operating point: automatically calculated based on the installation site
- 3 Alarm: automatically calculated value indicates a lower aspiration volume, coating process is not interrupted but an alarm message appears
- 4 Stop spray: immediate stop of the coating process at this automatically calculated value

Filter cartridge Δp

The condition of the cartridges is defined by the *Filter cartridge Δp* which corresponds to the filter resistance. The cleaning is automatically triggered accordingly.

- 5 Actual value: display (graphically and in digits) of the currently measured filter resistance

Gema Switzerland GmbH

Mövenstrasse 17 | 9015 St.Gallen | Switzerland
 T +41 71 313 83 00 | F +41 71 313 83 83
 www.gemapowdercoating.com

