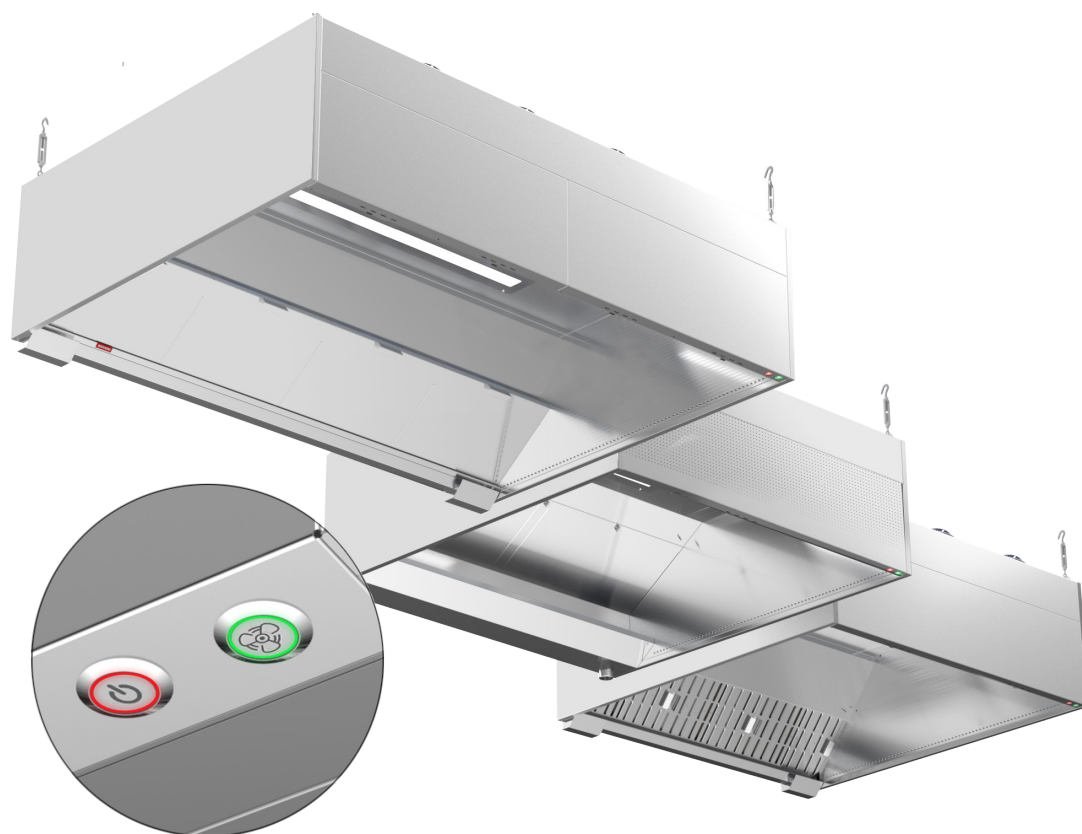




NORDcanopy

MC 1.0

Manual Control Kitchen Ventilation System

Manual Control (MC 1.0) Kitchen Ventilation System

MC 1.0 (Manual Control 1.0) control system makes managing ventilation in a professional kitchen simple and convenient. Users can manually adjust the ventilation level in different zones of the kitchen as needed using a control button.

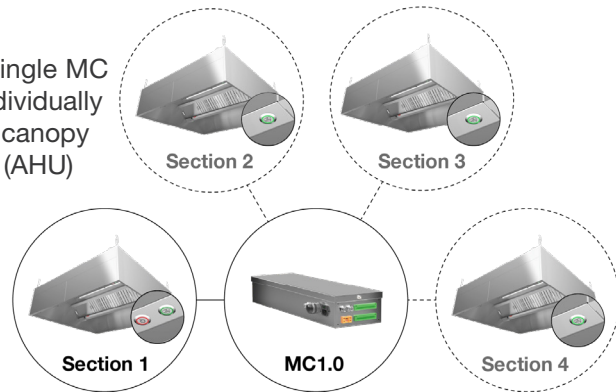
This solution can be used:

- when designing new kitchen projects or
- when upgrading existing kitchen hoods.

The MC 1.0 system provides more efficient air exchange and zone-based ventilation control in every kitchen.

Ventilation control

Up to four control buttons can be connected to a single MC 1.0 control box, depending on the total number of individually controlled zones or canopy groups. MC can control canopy exhaust and supply dampers and an air-handling unit (AHU) or up to two fans.



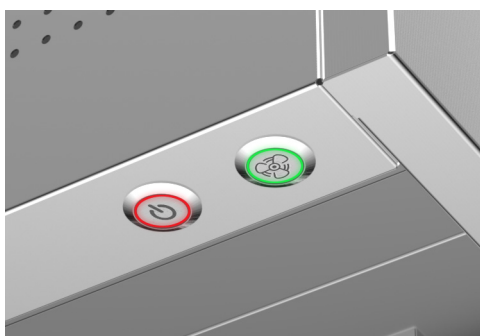
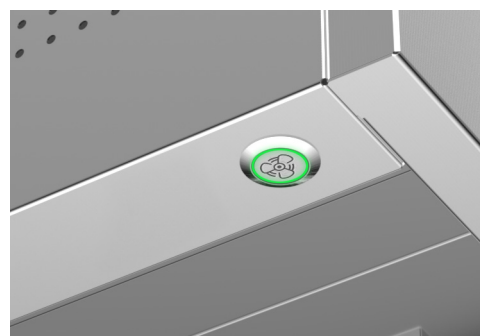
Idle mode

- Canopy ventilation is shut off or is working at a minimum configured speed to ensure ventilation in the kitchen.
- This mode is used when there is no cooking activity under the canopy.

Cooking mode

- By pressing a control button, the ventilation intensity in the corresponding zone increases to a set maximum. Next button press restores idle mode.
- For added convenience, cooking mode can also be activated for a set period, with the duration selected by repeatedly pressing the button.
 - Default cooking mode durations (customizeable):
 - 1x button press – 5 minutes,
 - 2x button press – 30 minutes,
 - 3x button press – 60 minutes.

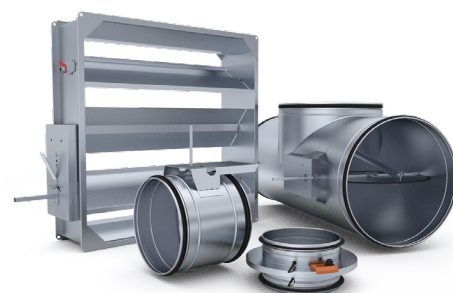
When MC 1.0 controls an AHU or fans, the system includes a Start/Stop button for enabling or disabling the operating permission of the entire system. This button is located on one canopy in the first group, alongside the control button.



Dampers and actuators

Each section has its own exhaust air and supply air control dampers which are used to adjust the airflow according to the operating mode in the corresponding group. Groups are separated from each other in terms of airflow.

- Idle mode – airflow is off or at the configured minimum rate,
- Cooking mode – airflow is at the configured maximum rate.



MC 1.0 control box can power and control up to 16 actuators (NKQ24A-1).

Belimo NKQ24A-1 specifications	
Operating voltage AC/DC	AC/DC 24 V
Torque	6 Nm
Control type	Open/close
Running time (motor, fail-safe)	4 s / 90°

MC control box can be connected to the building's AFAS (Automatic Fire Alarm System), and it's operation during a fire alarm can be configured.

Controllable devices

MC control box can control Recair or other air handling units with 0...10V analog signals.

Alternatively, MC can control up to 2 separate NORDfan or other 0...10V capable fans or VFDs.

MC 1.0 is also suitable for buildings where ventilation operates based on duct pressure. In this case, the MC 1.0 system only opens and closes the dampers, and the start/stop button is not required.

Optionally, two filters with pressure switches can be connected to MC 1.0. When the filters require replacement or maintenance, the start/stop button light starts flashing rapidly while the ventilation is working.

Recair

Air handling Units



Input: 1 signal - 0...10V
Input: Duct pressure sensor device PA

Supply and exhaust unit



Slave - Modbus RTU Channel
Input: 1 signal - 0...10V
Input: Duct pressure sensor device PA

E-series



Master - Modbus RTU Channel
Input: 1 signal - 0...10V
Input: Duct pressure sensor device PA

NORDfan

VFTM320



Input: SP - 0...10V
Input: VT - 0...10V
Start/Stop - 1 common

KABB/T ECOWATT



AC MOTOR 230/400VAC

VAPZ



Input: SP - 0...10V
Input: VT - 0...10V
Start/Stop - 1 common

Single-phase asynchronous motor with capacitor (new or existing 1f fans)

CVAB/T-ECOWATT



Input: SP - 0...10V
Input: VT - 0...10V
Start/Stop - 1 common

Operating according to time schedule (Smart Schedule)

MC system has an adjustable weekday schedule, which allows users to define when the system is in off, idle, or cooking mode



This means the kitchen ventilation can operate according to an automatic schedule without daily manual intervention, helping to reduce energy consumption.

Monitoring and commissioning

When MC 1.0 is connected to the local network or a router provided by ETS NORD, both the client and the technician gain access to the web interface. The web interface can be used for:

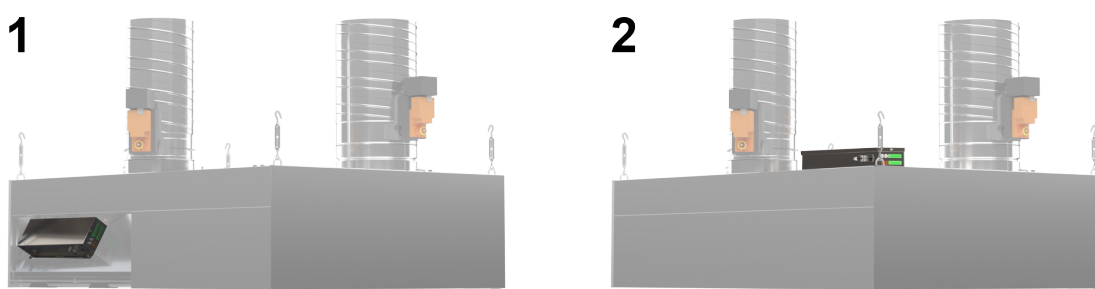
- monitoring system operation and modes of individual canopy groups;
- configuring cooking timer durations, and;
- remote setup and system configuration.

Retrofit in existing kitchens

The MC control system can be integrated with other **NORDcanopy** products.

Installation location:

- 1) in the supply air chamber of ETS NORD hoods, or
- 2) if the kitchen hood has no supply air section, on top of the exhaust chamber ceiling.



For more information and to find the most suitable system solution, please contact an ETS NORD sales specialist, who can offer assistance in selecting the right solution and support throughout all stages of kitchen projects.

Technical data

Nominal voltage	100 ... 240 V, AC (TN or TT system)
Nominal frequency	50/60 Hz
Max. input current of the unit (16 moving actuators)	1,55 A (230 VAC)
Max. power consumption of the unit (16 moving actuators)	290 W
Nominal power consumption (16 actuators are closed/open)	80 W
Short-circuit current withstand capability (I _{cc} ; C16 circuit breaker on the supply side)	2 kA
Overvoltage category	II
Protection against electric shock	I class (basic insulation + switch-off of the automatic power supply)
IP rating of the housing	IP20
Pollution degree	I
Ambient temperature range during operation	0 ... +40 °C
Ambient temperature range during storage	-20 ... +70 °C
Relative humidity	max. 90 %RH/+20 °C non-condensing
Operating altitude above sea level	max. 2000 m
Max. number of canopy groups	4
Max. number of actuators (NKQ24A-1)	16
Fire alarm connection	1 discrete input (requires a potential-free output)
Dimensions (length x width x depth)	545 x 210 x 100 mm
Unit material	Stainless steel AISI 304, th. 0,8 mm
Weight	4,9 kg
Basic standard	EVS-EN IEC 61439-2:2021
EEC standard	EVS-EN IEC 61000-6-2:2019, EVS-EN IEC 61000-6-3:2021



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*Let's move the air **together!***