



# C-MAX COMPACT / FLEX

**TWO SOLUTIONS – ONE SYSTEM**  
WOLF Measuring and Regulating Technology



Spirit of Air

# C-MAX compact / flex

## WOLF C-MAX COMPACT / FLEX

### Plant-specific ex Works

From compact ceiling unit to roof central with refrigeration and humidification control. For customer-friendly commissioning, WOLF **C-MAX** is already configured ex works specifically for each plant.

For commissioning only the nominal values, fixed speeds, volume flow, pressure and switching times have to be adjusted individually by customer.

### Easy and Comfortable Handling

All important settings can be adjusted comfortably on the clearly legible control unit. Choose kind of operation, temperature or requested operating time. On the optional touch control unit, the plant functions can also be monitored as a graphic scheme.

### Energy-efficiently matched

WOLF measuring and regulating technology is the ideal solution to secure a specific customer-tailored plant function in a perfect symbiosis between energy efficiency and performance.

### Comprehensive Language Setting

A total of 13 languages enable the use of WOLF regulation almost everywhere: German, English, Danish, Dutch, Finnish, French, Italian, Lithuanian, Polish, Russian, Spanish, Swedish, Turkish.

### Longstanding Partners

The market offers innumerable solutions, more or less convincing. For hard- and software, we rely on sophisticated regulation technology by Siemens.

## TWO SOLUTIONS – ONE SYSTEM

The extensive possibilities of our measuring and regulating technology offer the right solution for each plant. The pre-configured WOLF **C-MAX** compact presents a compact and cost-optimized unit. For individual requirements, we provide WOLF **C-MAX** flex program, fulfilling any requests of a ventilation regulation.



## IN DIRECT COMPARISON



Options	C-MAX compact	C-MAX flex
Heat Recovery	✓ PWT, Rotor	✓ PWT, Rotor, KVS
Heating Register	✓	✓
Cooling Register	✓	✓
Heat Pump	✓	✓
Fans	✓ EC (up to 7A)	✓ unlimited
Air Quality Measuring	✓	✓
Smoke Detector	✓	✓ (optional DIBt, heat detector)
Activation Fire Protection Flaps	✓ (only limit switch)	✓ (optional single display, control)
Remote Control	✓	✓ (optional hardware control panel)
Cloud Activation	✓	✓
Room Hygrostat	✓	✓
WEB Server	✓	✓
Free Night Cooling	✓	✓
Pre-Wiring	✓	✓
WOLF Commissioning	✓	✓
BACnet IP	✓	✓
Modbus RTU	✓	✓
Touch Panel	✗	✓
Phase Display	✗	✓
Power Outputs	✗	✓
Selectable Switchboard Layout	✗	✓
Humidity Control	✗	✓
Humidifier	✗	✓





# WOLF C-MAX

## Plant-specific ex Works

For customer-friendly commissioning, WOLF C-MAX is already configured ex works specifically for each plant. For commissioning of heat recovery (WRG), only the specific data have to be set by customer.

## At a Glance

- ▶ Room unit local handling (optional)
- ▶ Control unit (HMI) for commissioning and function expansion
- ▶ Pre-programmed and configured regulation ex works
- ▶ User-friendly menu guide
- ▶ Expansion modules BACnet- and Modbus interface
- ▶ Remote service by TCP/IP
- ▶ Regulation of CO<sub>2</sub>, pressure, volume flow or humidity possible
- ▶ Software updates by SD-card

## Kind of Operation

- ▶ Stepless 0-100% by 3-step automatic system
- ▶ Constant volume flow
- ▶ Constant pressure
- ▶ CO<sub>2</sub>-regulation
- ▶ Humidity regulation

## Bypass Summer / Winter

- ▶ Internal sensors with adjustable limit values for heat recovery
- ▶ Free Cooling

## Filter Supervision

- ▶ Pressure box
- ▶ Pressure sensor

## Switch-off Fire Alarm Center (BMZ)

- ▶ Supply and Extract Air "Off"
- ▶ Extract Air "Off"

## Icing Protection of Heat Recovery (WRG)

- ▶ Temperature sensor

## Regulation Type

- ▶ Constant Supply Air
- ▶ Extract / Supply Air Cascade
- ▶ Room / Supply Air Cascade

## Post-Heating Register

- ▶ Pump Warm Water Register (PWW)
- ▶ Electric Heating Register
- ▶ Heat Pump

## Cooling

- ▶ Free Cooling
- ▶ Cooling Register Pump Cold Water (PKW)
- ▶ Cooling Register DX (Direct Expansion) (Heat Pump)

## Communication

- ▶ SD-Card and internal memory
- ▶ Remote Service by TCP/IP
- ▶ BACnet
- ▶ Modbus

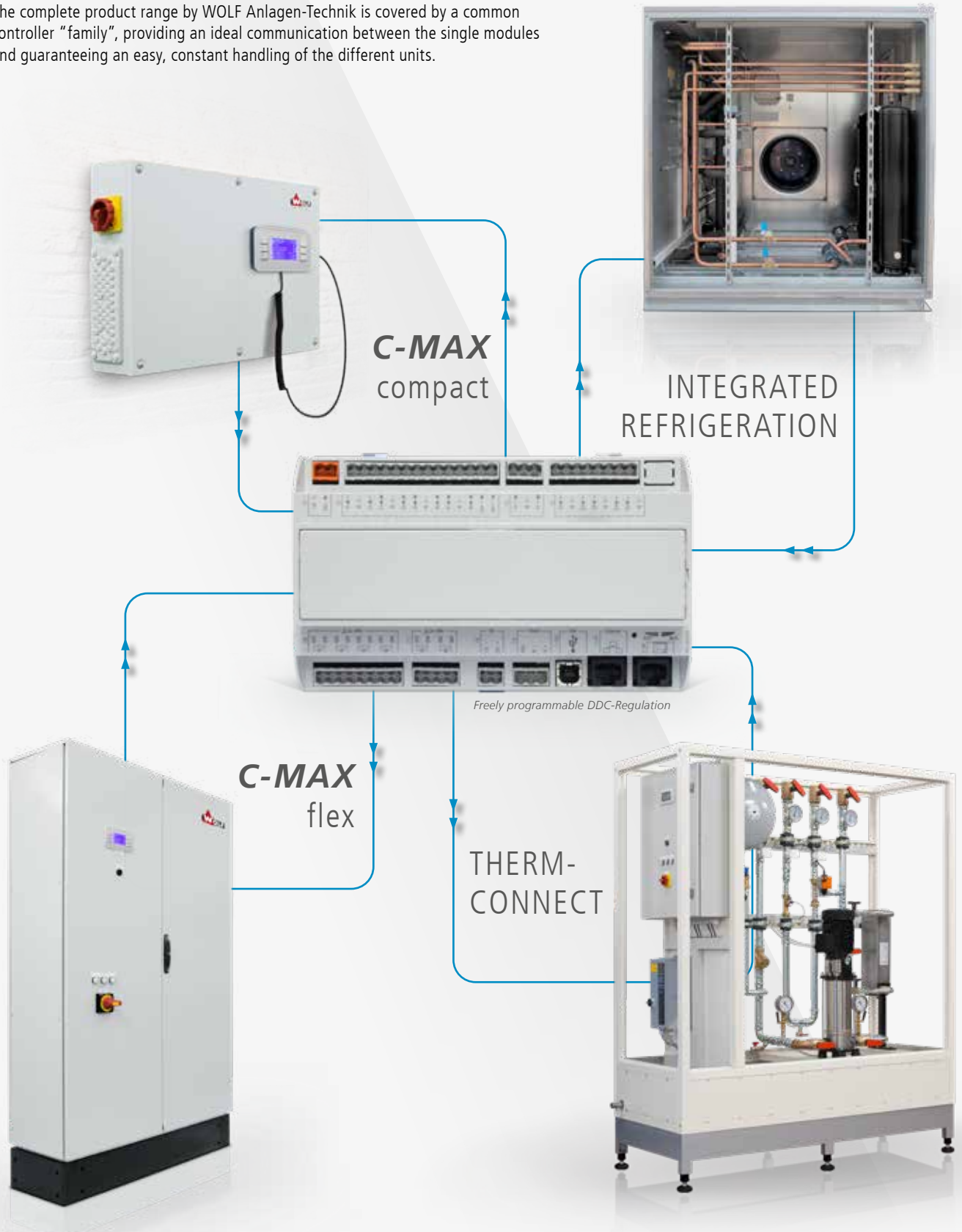
## Fire Protection Flaps

- ▶ Collective fault
- ▶ Single display

# C-MAX compact / flex

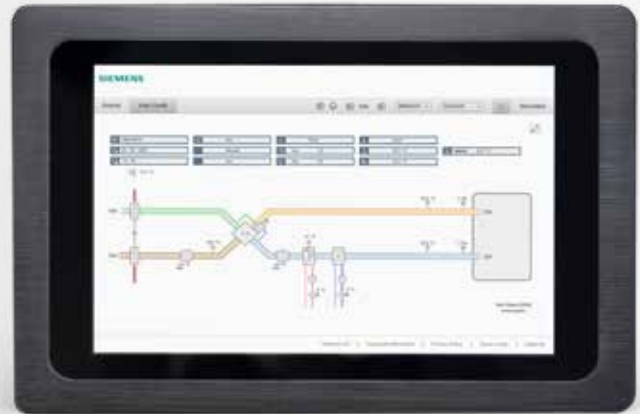
## REGULATION – FROM A SINGLE SOURCE

The complete product range by WOLF Anlagen-Technik is covered by a common controller "family", providing an ideal communication between the single modules and guaranteeing an easy, constant handling of the different units.



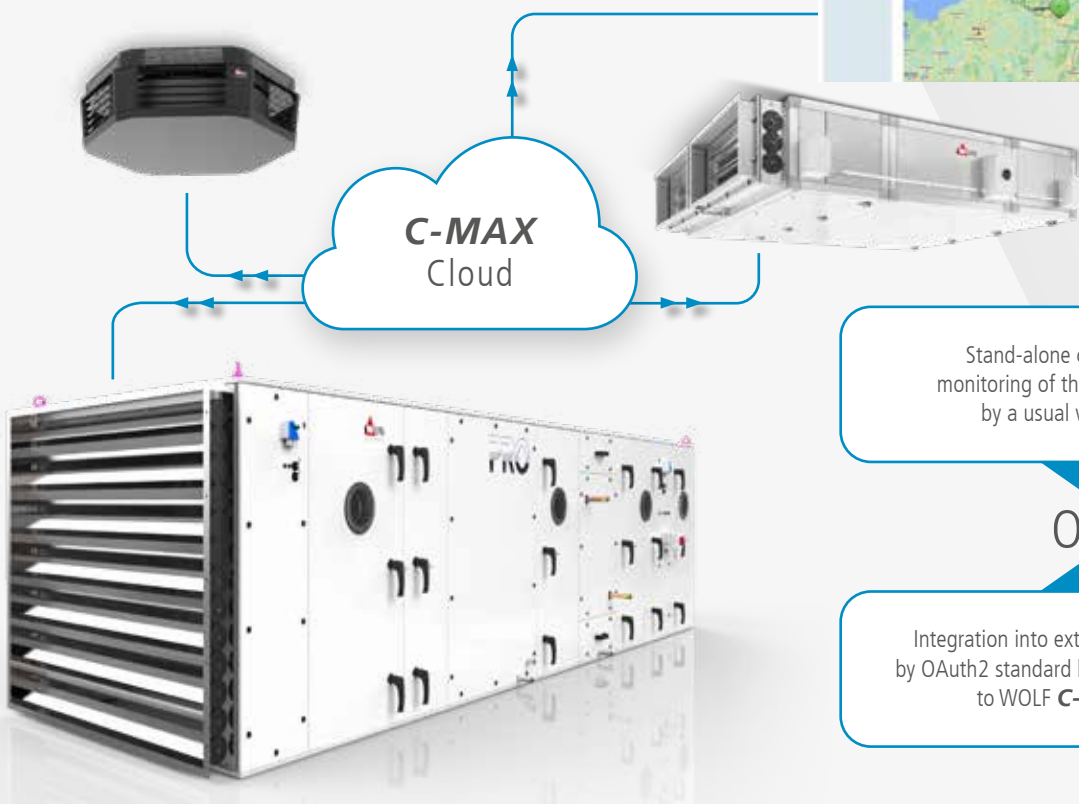
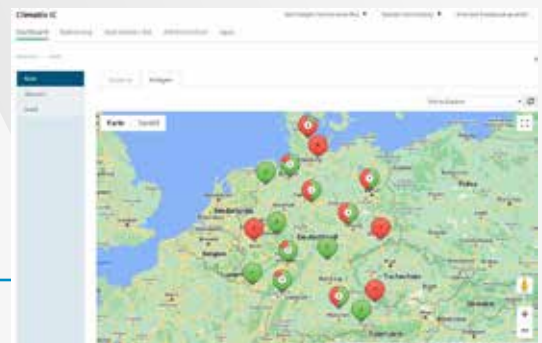
## C-MAX Touch

- ▶ Completely pre-configured visualization
- ▶ Automatic starting of SMART HMI App
- ▶ User-friendly and uniform layout
- ▶ Comfortable schedule adjustment
- ▶ Easy menu guide
- ▶ All important data points at a glance



## C-MAX Cloud

- ▶ Remote maintenance at any time
- ▶ Easy installation by IP-interface
- ▶ Optimization of service assignments by Predictive Maintenance
- ▶ Safe HTTPS-data transfer
- ▶ Georedundant servers within Europe
- ▶ Remote support by WOLF MSR-experts (Measuring and Control Technology)



Stand-alone cloud for easy monitoring of the installed plants by a usual webbrowser

OR

Integration into external cloud systems by OAuth2 standard log for secured access to WOLF **C-MAX** data.

# C-MAX compact

## WOLF C-MAX compact at a Glance

### Your Benefits

- ▶ Cost-optimized standard switchboard
- ▶ Compact dimensions
- ▶ Easy installation
- ▶ Integrated main switch
- ▶ Two-sided cable entry plates for fast and efficient wiring
- ▶ Comprehensive language package (13 languages)



Housing 600 x 400 x 120 mm



Magnetic control unit for free placement



Room unit

### Switchboard

The compact standard switchboard (600 x 400 x 120 mm) with lateral cable entries and integrated main switch can be installed almost anywhere. It is handled by a control panel with 8-line LCD-display to be fixed magnetically anywhere on the switchboard or on the unit.

The switchboard can be attached in vertical or horizontal position, but also laid flat onto the unit.

### Air Quality Sensor

An air quality sensor in the room or in the extract air duct is controlling the air quality as required, keeping it on the requested level in the room.

### Temperature Regulation

Whether constant supply air temperature or room / extract air – supply air cascade, WOLF C-MAX compact regulation offers all common possibilities.

### Heating Module

Control of an electric register or a pump warm water register including plant-specifically designed control valve is heating up supply air to the requested nominal temperature. The pump warm water register is also able to cover a change-over function for cooling the air and moreover to control a heat pump.

### Cooling Module

The air is being cooled either by an external refrigerating machine / heat pump (optionally also by WOLF) or by a pump cold water register with plant-specifically designed control valve by WOLF.

### Heat Recovery

WOLF C-MAX compact is able to control heat recovery systems, plate exchangers and rotary exchangers. For icing protection, the exhaust air temperature is measured and controlled energy-efficiently.



### Fans

One supply and one extract air fan can be controlled, each, providing all possibilities regarding control variables such as speed, pressure and volume flow.

### Smoke Detectors

Duct smoke detectors can be supplied optionally to switch off the plant in case of fire. Of course, the signal can be passed on to a building control system (GLT).

### Remote Control

Compact, elegant room control unit for easy display of the current operating mode. Nominal temperature control, plant control and presence key for easy handling on site. Easy installation by two-wire process bus.

### Communication

Integration into the building automation can easily be done by an integrable Modbus or BACnet interface.

### C-MAX Cloud

WOLF **C-MAX** Cloud offers extensive remote maintenance possibilities, saving expensive work on site.

### Pre-Wiring

All sensors and devices of the unit can optionally be pre-wired in our factory, reducing considerably the assembly on site and saving time and money.

### Further Options

- ▶ Web Server
- ▶ Room hygostat
- ▶ Free night cooling
- ▶ Fire connection of building control system (GLT)
- ▶ Single display of fire protection flaps (BSK) in separate housing

## WOLF C-MAX flex at a Glance

### Your Benefits

- ▶ Endless possibilities
- ▶ Freely configurable
- ▶ Individual planning
- ▶ Zone regulation
- ▶ Programmable customer-specific expansion
- ▶ Comprehensive language package (13 languages)



### Switchboard

Individually adapted switchboard with door hinge right or left hand and cable entry above or below. Phase lamps, central release and main switch are firmly integrated into the switchboard door. The control unit is fast and easy to operate by six buttons.

### Air Quality Sensor

An air quality sensor in the room or in the extract air duct is controlling the air quality as required, keeping room air always fresh.

### Temperature Regulation

Whether constant supply air temperature or room / extract air – supply air cascade, WOLF C-MAX flex regulation offers all possibilities.

### Humidity Regulation

The air can be conditioned optimally by high-grade humidity sensors in supply air and optionally room or extract air.

### Heating Module

Control of an electric register or a pump warm water register including plant-specifically designed control valve is heating up supply air to the requested nominal temperature. The pump warm water

register is also able to cover a change-over function for cooling the air. A recirculating pump is to be provided by customer and can be configured as requested. The power controller of the electric register is integrated into the WOLF C-MAX switchboard, so that all components are in one place.

### Cooling Module

The air is being cooled either by an external refrigerating machine / heat pump (optionally also by WOLF) or by a pump cold water register with plant-specifically designed control valve by WOLF. A recirculating pump is to be provided by customer and can be configured as requested.

### Heat Recovery

WOLF C-MAX flex offers all possibilities: plate heat exchanger, rotary exchanger, recirculating air function or cycle compound system (KVS). A KVS can be configured either as WOLF THERM-CONNECT or unit to be installed by customer.

### Humidification

WOLF C-MAX flex regulation is able to control all kinds of humidifiers: steam humidifiers, high or low pressure humidifiers or even adiabatic extract air cooling.



Professional Wiring



Fire Protection Flaps at a Glance



Additional Panel for rough Requirements



## Fans

Supply air fan, extract air fan WOLF – Fan Wall or separate ceiling fans: WOLF **C-MAX** flex offers all possibilities regarding control variables such as speed, pressure and volume flow.

## Smoke Detectors

You can choose between duct smoke detectors with or without DIBt-approval (German Institute for Building Technology). Heat detectors can also be used in case of difficult extract air conditions.

## Fire Protection Flaps

You can choose between connection of limit switches and control of motorized 230 or 24 V fire protection flaps. A single display in the switchboard door can be chosen for differentiated message.

## Remote Control

Compact, elegant room control unit for easy display of the current operating mode. Nominal temperature control, plant control and presence key for easy handling on site. Easy installation by two-wire process bus. Optional on- and in-wall panel with hardware switches for rough environment and simple handling.

## SmartHMI Touch

The display integrated into the switchboard door provides an easy handling and a clear overview of the plant.

## Communication

Integration into the building automation can easily be done by an integrable Modbus or BACnet interface.

## C-MAX Cloud

WOLF **C-MAX** Cloud offers extensive remote maintenance possibilities, saving expensive work on site.

## Pre-Wiring

All sensors and devices of the unit can optionally be pre-wired in our factory, reducing considerably the assembly on site and saving time and money.

## Further Options

- ▶ Web Server
- ▶ Room hygrostat
- ▶ Free night cooling
- ▶ Fire connection of building control system (GLT)
- ▶ Socket, lighting, heating and fan for switchboard
- ▶ Power outputs for plant lighting, anti-frost heating, siphon heating



# HEATING VENTILATION AIR CONDITIONING

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