



WCC 103 MotorController



Comfort
ventilation

230V

Operating
voltage

24V

±24V DC
actuators

Application

- for daily comfort ventilation
- for controlling ±24V DC standard window actuators
- 1 comfort ventilation group at max. 3A
- may be combined with external temperature and time automated BMS

MotorController for controlling ±24V DC standard actuators for daily comfort ventilation. It can also control locking actuators. The number of actuators that may be connected to the motor line depends on the type of actuator – see the table, “Maximum number of actuators per MotorController” for type/number.

Description

The MotorController controls (opens/closes) the window actuators based on a signal from the connected component(s) e.g. comfort keypad (operating keypad), room sensors and weather sensors.

We recommend connecting comfort keypad when sensors and other operators are connected so that users always, via the comfort keypads, can override the signals and open or close windows themselves should there be a need for more or less fresh air.

Up to 10 MotorControllers can be connected as part of a larger solution and may be connected to the same weather station. Several MotorControllers may be operated from the same comfort keypad.

The MotorController is also supplied in a 3A version with remote control for controlling the windows and a 6A version also with a remote control.

Prioritised inputs

The actuators may be overridden via three prioritised inputs. All switches must be potential free.

- common CLOSE ALL/safety (rain) function (highest priority)
- hand operation of the motor line
- automated control of the motor line (lowest priority)

Power supply for external units

When connecting sensors the auxiliary power from the built-in 24V DC 500mA power supply can be used

Configuration

Via a DIP switch it can be configured if there should be maintained action on the connected comfort keypads.

Specifications

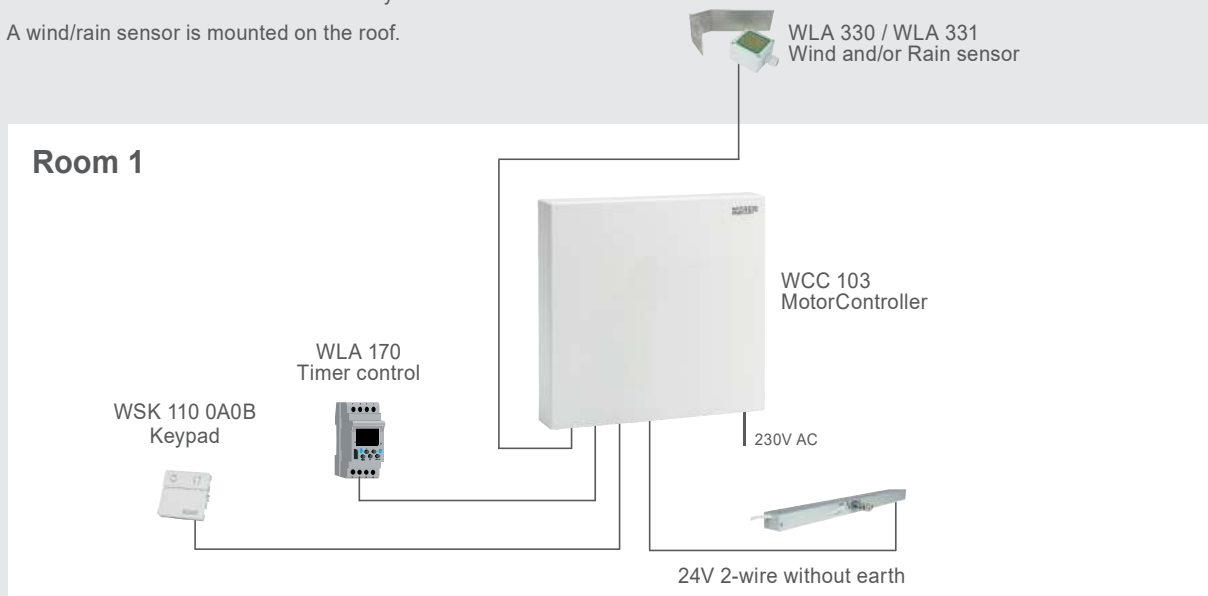
- 1 motor group with up to 3A in total
- Max output voltage 24VDC at 230VAC
- simple and quick installation
- up to 10 MotorControllers may be linked
- rain/wind sensors can be connected
- 3 prioritised inputs

The MotorController may either be mounted horizontally or vertically on a wall.

Example 1: WCC 103 with timer control and wind/rain sensor

In the room 1 pcs. $\pm 24V$ standard actuator is connected as well as comfort keypads for individual operation of the window.
A timer control is fitted that opens/closes the windows in the room at preset times, e.g. open and close at start and end of a lunch break and "close all" at the end of the day.

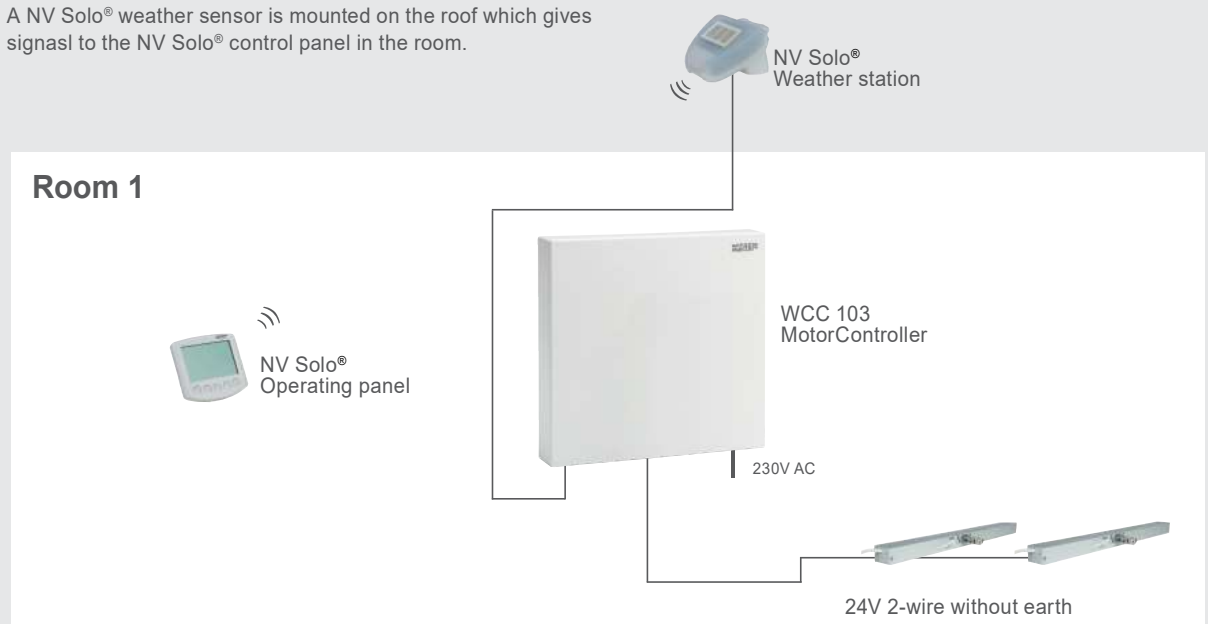
A wind/rain sensor is mounted on the roof.



Example 2: WCC 103 with NV Solo®

In the room 2 pcs. $\pm 24V$ standard actuators are connected.
A NV Solo® control panel is with built in temperature sensor and comfort keypad for individual operation of the actuators is installed.

A NV Solo® weather sensor is mounted on the roof which gives signals to the NV Solo® control panel in the room.



Technical specifications							
Output current	3A incl. load on X7 (max 0.5 A)						
Motor lines	1 x ±24V standard motor line						
Primary voltage	100-240 VAC 0.85A 50/60Hz						
Actuator secondary voltage	<table border="1"> <tr> <td>Nominal voltage</td> <td>24V DC (±15%)</td> </tr> <tr> <td>Open circuit voltage at 230V AC (no load)</td> <td>24V DC @ 20°C</td> </tr> <tr> <td>Ripple at max load</td> <td>150mVp-p</td> </tr> </table>	Nominal voltage	24V DC (±15%)	Open circuit voltage at 230V AC (no load)	24V DC @ 20°C	Ripple at max load	150mVp-p
Nominal voltage	24V DC (±15%)						
Open circuit voltage at 230V AC (no load)	24V DC @ 20°C						
Ripple at max load	150mVp-p						
Power consumption	<p>Idling < 0.5W</p> <p>Max load 77 W</p>						
Inrush current on primary side	<p>65A < 5ms v. 230V</p> <p>Max. 6 x WCC 103 per 10A power supply group.</p> <p>Circuit breaker "C" characteristic.</p>						
AUX	24V DC, 500mA						
Operating conditions	-5°C - +45°C, for indoor installation, the controller may not be covered						
Switch-on duration	ED 40% (4 min. per 10 min.)						
Connection cable	<p>Actuators</p> <p>Flexible max 6mm² / solid max 10mm², max 2V voltage drop.</p> <p>Other components</p> <p>Min 0.2mm² / max 1.5mm²</p>						
Size	215 x 206 x 37mm (W x H x D)						
Material	Plastic						
Colour	White (RAL 9016)						
Weight	0.92kg						
IP rating	IP20						
Safety class	I (with PE)						
Delivery includes	<p>MotorController with 1.2 m cable with Schuko plug</p> <p>UK version supplied with UK network adapter</p>						
Note	We reserve the right to make technical changes						

Max number of actuators per MotorController

The following table shows the maximum number of actuators, based on actuator type ($\pm 24V$ standard) that can be connected to the MotorController. Total power consumption for all connected actuators may not exceed 3A.

Actuator type	Max. number $\pm 24V$ actuators that may be connected to WCC 103
WMD 820-1	3
WMD 820-2	2
WMD 820-3	3
WMS 306 / 309-1	3
WMS 306 / 309-2	2
WMS 306 / 309-3	3
WMS 409 xxxx 01	1
WMS 409-1	1
WMU 831 / 836 / 851-1	3
WMU 831 / 836 / 851-2	2
WMU 831 / 836 / 851-3	3
WMU 861-1	2
WMU 861-2	2
WMU 842 / 852 / 862 / 882-1	1
WMU 863 / 883-1	1
WMX 503 / 504 / 523 / 526-1	6
WMX 503 / 504 / 523 / 526-2	6
WMX 503 / 504 / 523 / 526-3	6
WMX 503 / 504 / 523 / 526-4	4
WMX 803 / 804 / 813 / 814 / 823 / 826-1	3
WMX 803 / 804 / 813 / 814 / 823 / 826-2	2
WMX 803 / 804 / 813 / 814 / 823 / 826-3	3
WML 820 / 825	3
WML 860-1	3
WML 860-2	2
WML 860-3	3
WMB 801 / 802	3
WMB 811 / 812 / 815/ 816 / 817 / 818 *	2

* When having two locking actuators on one motor line use: 1 x WMB 811 and 1 x WMB 812, 1 x WMB 815 and 1 x WMB 816 or 1 x WMB 817 and 1 x WMB 818

WCC 103

MotorController

Variants	Item number
MotorController 3A	WCC 103 0101
MotorController 3A, UK version	WCC 103 0401

Accessories	Item number
Comfort keypad, for fitting	WSK 100 1161
Comfort keypad, 1 window or 1 window group	WSK 110 0A0B
Comfort keypad, for fitting (CH version)	WSK 300
Room thermostat: temperature	WLA 110
Wind/rain sensor	WLA 330
Rain sensor	WLA 331