

# MANDÍK®

## INSTRUCTIONS FOR CONTROLLING MANDÍK AIR CONDITIONING UNITS FROM QMX3.P34, QMX3.P37 & QMX3.P74 WALL-MOUNTED DEVICES

6/2023



Display and operation <sup>4)</sup>

## Functions of display symbols and buttons

Button	Display	Button
1		
2		6
3		7
4		8

Symbol <sup>1)</sup>	Function
	<ul style="list-style-type: none"> <li>Displayed arrows indicate that the element can be controlled.</li> </ul>
	<ul style="list-style-type: none"> <li>Shows the temperature in °C, humidity in % RH, and air quality in ppm CO<sub>2</sub>.</li> </ul>
	<ul style="list-style-type: none"> <li>Switching (button 1) between indoor and outdoor values (temperature, humidity, air quality).</li> </ul>
	<ul style="list-style-type: none"> <li>Shows the relative or absolute setpoints for temperature in °C, humidity in % RH, and air quality in ppm CO<sub>2</sub>. Setpoint correction with buttons 2 and 6.</li> </ul>
	<ul style="list-style-type: none"> <li>Shows the current supply fan speed. Sets the fan speed with button 3 (only when temperature navigation is selected). <ul style="list-style-type: none"> <li><b>AUTO</b> <ul style="list-style-type: none"> <li>Automatic fan speed corresponds to the current operating mode (Comfort or Attenuation) in the controller.<sup>2)</sup></li> </ul> </li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>Displaying and changing the type of operation with button 7 (only when temperature navigation is selected). <ul style="list-style-type: none"> <li><b>AUTO</b> <ul style="list-style-type: none"> <li>Operation set by the schedule defined in the controller.</li> <li><b>Comfort</b> mode.</li> <li><b>Economy</b> mode.</li> <li><b>Off</b> mode.<sup>3)</sup></li> </ul> </li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>Device status (heating or cooling / inactive).</li> </ul>
	<ul style="list-style-type: none"> <li>Navigation: display switching and value setting options (humidity, temperature, air quality) with button 4. The line under the icon draws attention to the selected information.</li> </ul>
	<ul style="list-style-type: none"> <li>Selection of occupancy status with button 8 (occupancy switch, <b>Comfort</b> mode enforcement).</li> </ul>
	<ul style="list-style-type: none"> <li>Master-level operation block indicator</li> </ul>

<sup>1)</sup> The symbols and operation of the room operator unit depends on the control application in the Climatix controller.

<sup>2)</sup> Speeds for **Comfort** and **Economy** modes are set in the Climatix controller.

<sup>3)</sup> Function of the **Off** mode is specified in the Climatix controller menu. The temperature setpoint and fan speed cannot be adjusted in this mode.

<sup>4)</sup> This description is valid for application version 33.02AHU and higher in the Climatix controller.

## Functions of LEDs with symbols and buttons (only for QMX3.P37)

Button	Symbols with LED diodes	Button	
9	 		
	 		
	<b>KJM Mandík</b>		

Symbol LED diode	Functions
	<ul style="list-style-type: none"> <li>Indicates a device alarm, alarms are acknowledged with button 9: <ul style="list-style-type: none"> <li>Flashing LED – indicates a new alarm.</li> <li>LED on – indicates an acknowledged alarm.</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>Indication of device operation: <ul style="list-style-type: none"> <li>LED on – device is on in standard Comfort or Attenuation mode.</li> <li>LED flashing – device is on in the temporary Tempering mode.</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>LED showing filter status during fan operation: <ul style="list-style-type: none"> <li>LED on – clean filter.</li> <li>LED flashing – dirty filter.</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>LED showing fan status: <ul style="list-style-type: none"> <li>LED on – fan on.</li> <li>LED flashing – fan malfunction.</li> </ul> </li> </ul>

## Ranges of required parameters

Parameter	Minimum	Maximum	Step
Temperature	15 °C	28 °C	0.1 °C
Relative humidity	10 %	95 %	1 %
Air quality	400 ppm	2000 ppm	100 ppm
Fan speed	0 %	100 %	10 %

## Climatic controller settings

Functions	Climatic controller menu
Enabling control from QMX3 series room operator units.	2   AHU Mandík 2   Configuration <sup>5)</sup> RoomUnit QMX3
Fan control. If QMX3 is not selected in <b>TypeControl</b> , then fan speed cannot be changed smoothly from the room operator unit.	2   AHU Mandík 2   Configuration <sup>5)</sup> SupplyFan EC >TypeControl QMX3 ExhaustFan EC >TypeControl QMX3

<sup>5)</sup> The controller must be reset after a change in values.

<p><b>Off</b> mode options entered from the room operator unit:</p> <ul style="list-style-type: none"> <li>When <b>Off</b> is selected, the air conditioning unit is shut down.</li> <li>When <b>Tempering</b> is selected, the air conditioning unit may switch into <b>FrostProtect</b> or <b>Freecooling</b> subsidiary modes based on pre-defined parameters.</li> </ul>	<table border="1"> <tr><td>2   AHU Mandík</td></tr> <tr><td>2   ComponentsMachine</td></tr> <tr><td>2   Others</td></tr> <tr><td>QMX3-Off</td></tr> <tr><td>Off</td></tr> <tr><td>2   Others</td></tr> <tr><td>QMX3-Off</td></tr> <tr><td>Tempering</td></tr> </table>	2   AHU Mandík	2   ComponentsMachine	2   Others	QMX3-Off	Off	2   Others	QMX3-Off	Tempering
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<p>Connecting temperature sensors from the room operator unit to the Climatic controller for space temperature control. Temperature corrections made in the Climatic controller do not appear in the measured temperature shown on the QMX3 display.</p>	<table border="1"> <tr><td>2   AHU Mandík</td></tr> <tr><td>2   AssignmentInputs/Outputs</td></tr> <tr><td>2   Temperatures</td></tr> <tr><td>Room</td></tr> <tr><td>QMX3</td></tr> </table>	2   AHU Mandík	2   AssignmentInputs/Outputs	2   Temperatures	Room	QMX3			
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<p>Connecting relative humidity sensors from the room operator unit to the Climatic controller for space humidity control. This only applies to QMX3.P74 room operator units. Relative humidity corrections made in the Climatic controller do not appear in the measured relative humidity shown on the QMX3 display.</p>	<table border="1"> <tr><td>2   AHU Mandík</td></tr> <tr><td>2   AssignmentInputs/Outputs</td></tr> <tr><td>2   Humidity</td></tr> <tr><td>Room</td></tr> <tr><td>QMX3</td></tr> </table>	2   AHU Mandík	2   AssignmentInputs/Outputs	2   Humidity	Room	QMX3			
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QMX3									
<p>Connection of CO<sub>2</sub> sensor from the room operator unit to the Climatic controller for space air quality control This only applies to QMX3.P74 room operator units. Air quality corrections made in the Climatic controller do not appear in the measured air quality shown on the QMX3 display.</p>	<table border="1"> <tr><td>2   AHU Mandík</td></tr> <tr><td>2   AssignmentInputs/Outputs</td></tr> <tr><td>2   AirQuality</td></tr> <tr><td>Sensor</td></tr> <tr><td>QMX3</td></tr> </table>	2   AHU Mandík	2   AssignmentInputs/Outputs	2   AirQuality	Sensor	QMX3			
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QMX3									

### Overview of room operator unit types

	Type designation		Properties						
			Temperature sensor	Relative humidity sensor	CO <sub>2</sub> sensor	Backlit display and touch keys	Touch keys with LED indicator	Window for labels	
Room operator units			QMX3.P34 QMX3.P34-1BSC	X			X		
			QMX3.P74 QMX3.P74-1BSC	X	X	X	X		
			QMX3.P37 QMX3.P37-1BSC	X			X	X	X