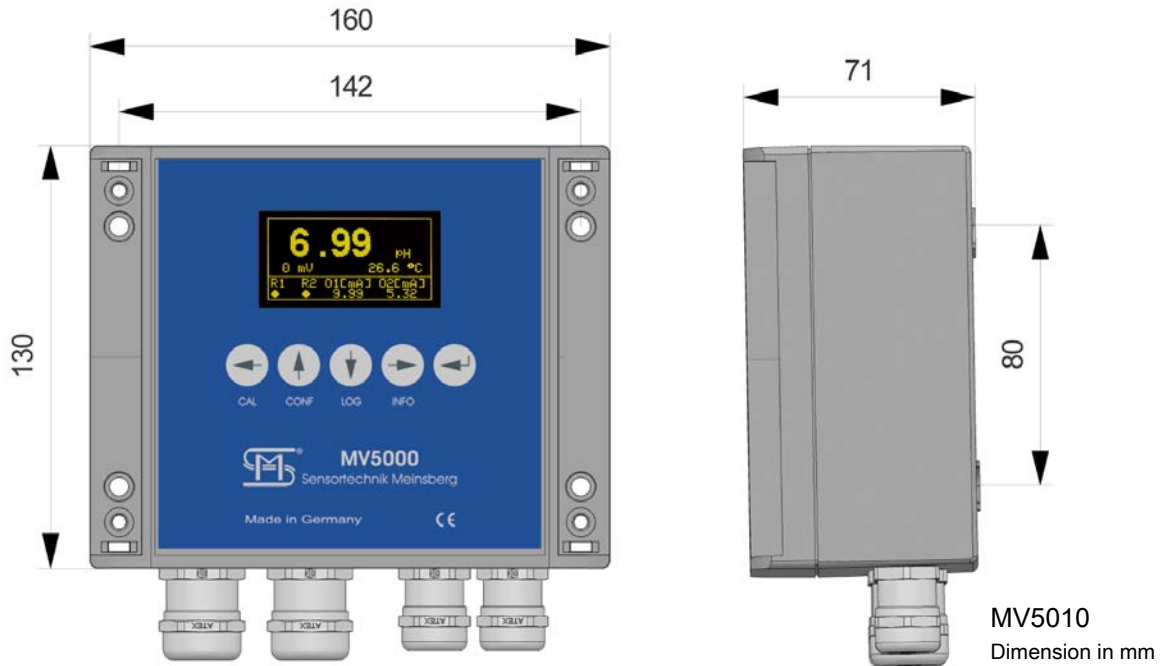


# MV5000, MV5000CAN

Single parameter controller



User-friendly installation and operation as well as high function especially controller functions, data logger and field bus networking allow universal application. The controller series features reliable processing of:

*pH value or redoxpotential or concentration (ISE) and temperature*

- MV5010
- MV5010CAN

*Conductivity (2 electrodes cells) and temperature*

- MV5020
- MV5020CAN

*Conductivity (4 electrodes cells) and temperature*

- MV5025
- MV5025CAN

*Dissolved oxygen (amperometric) and temperature*

- MV5030
- MV5030CAN

*Chlorine and temperature*

- MV5060
- MV5060CAN

<b>Configuration</b>	directly in the device by 5 keys and display (plain text menu structure) or by means of the PC interface and corresponding configuration program DinModule
<b>Display</b>	graphic OLED, 128x64 pixel, self-luminous
<b>Output signal</b>	2 x 0(4)...20 mA or 0...5(10) V, isolated, resolution 12 bit
<b>Current output signal</b>	load $\leq 500 \Omega$ , accuracy $\leq 0.2 \%$
<b>Voltage output signal</b>	input resistance $\geq 2 \text{ k}\Omega$ , accuracy $\leq 0.2 \%$
<b>Relay outputs</b>	<ul style="list-style-type: none"> <li>▪ 2 limit or alarm contacts, two way contact, max. 250 V AC, 5 A</li> <li><i>additionally for MV50xx:</i></li> <li>▪ PID controller, bidirectional (pulse width modulation or analog output)</li> <li>▪ 1 fault relay, two way contact, max. 24 V DC, 1 A / 24 V AC, 0.3 A</li> </ul> <p>To prevent relay damage, the load circuit must be fused for the maximum permissible current. The cable cross-section (max. 2.5 mm<sup>2</sup>) must be adapted to the maximum output current (DIN VDE 0298 Part 4, 2013-06).</p>
<b>Hold/Flow input</b>	for connecting of a flow switch or usable as a standard hold input (configurable)
<b>Interface</b>	<ul style="list-style-type: none"> <li>▪ RS232 or USB, isolated</li> <li>▪ Modbus RTU for RS485</li> </ul>
<b>Power supply</b>	<ul style="list-style-type: none"> <li>▪ MV50xx: 100...240 V AC, approx. 9 VA</li> <li>▪ MV50xx-24V: 18...36 V DC, approx. 9 VA</li> </ul>
<b>Fuse</b>	<ul style="list-style-type: none"> <li>▪ MV50xx: Fuse 5x20 mm; slow range; 1.6 A</li> <li>▪ MV50xx-24V: Fuse 125 mA; slow range; 24 V DC</li> </ul>
<b>Ambient temperature</b>	-10...55 °C
<b>EMC</b>	EN 61326-1:2013, class B
<b>Safety test</b>	EN 61010-1:2010
<b>Enclosure</b>	Aluminium case for wall mounting, protection class IP 65 Cover screws max. torque 3 Nm
<b>Dimension</b>	160x130x71 mm (WxHxD), weight approx. 1.4 kg
<b>Connections</b>	<ul style="list-style-type: none"> <li>▪ mountable screw-terminals for wires cross section 0.2...2.5 mm<sup>2</sup></li> <li>▪ 3 pins stereo jack socket for stereo jack</li> <li>▪ Cable gland M16x1,5 max. torque 7 Nm; cable cross-section 4.5 – 10 mm</li> <li>▪ Cable gland M20x1,5 max. torque 12 Nm; cable cross-section 7 – 13 mm</li> </ul>
<b>MV50xxCAN</b>	up to 16 devices (slaves) can be connected with KM3000 (master) to one network via CAN bus

- **Accessory:**
  - DinModule PC software program for configuration and data transmission
  - Interface MV Interface cable 1.8 m for RS232 interface connection to MV5000
  - Interface MV USB Interface cable 1.8 m for USB interface connection to MV5000
  - Interface MV5000 USB Interface cable 1.8 m for USB interface connection to MV5000  
(Adapter MV5000 is required)

	Measuring range	Electrodes / Sensors
<b>MV5010</b> <b>MV5010CAN</b>	<ul style="list-style-type: none"> <li>▪ pH -2.00...16.00</li> <li>▪ -2000...2000 mV</li> <li>▪ -10.0...130.0 °C (Pt 1000)*</li> </ul>	<ul style="list-style-type: none"> <li>▪ combination electrode</li> <li>▪ combination electrode with integrated temperature sensor</li> <li>▪ temperature sensor Pt 1000</li> </ul>
<b>MV5020</b> <b>MV5020CAN</b>	<ul style="list-style-type: none"> <li>▪ 0...200.0 µS/cm, 0...2000 µS/cm</li> <li>▪ 0...20.00 mS/cm, 0...100.0 mS/cm</li> <li>▪ -10.0...130.0 °C (Pt 1000)*</li> <li>▪ Cell constant 0.1 cm<sup>-1</sup>: 20.00 µS, 200.0 µS</li> <li>▪ Cell constant 0.01 cm<sup>-1</sup>: 2.000 µS, 20.00 µS</li> </ul>	<ul style="list-style-type: none"> <li>▪ 2 electrodes measuring cell with cell constant approx. 0.01, 0.1 or 1 cm<sup>-1</sup> and integrated temperature sensor Pt 1000</li> </ul>
<b>MV5025</b> <b>MV5025CAN</b>	<ul style="list-style-type: none"> <li>▪ 0...200.0 µS/cm, 0...2000 µS/cm</li> <li>▪ 0...20.00 mS/cm, 0...500.0 mS/cm</li> <li>▪ calculated salinity 2...42 g/kg</li> <li>▪ -10.0...130.0 °C (Pt 1000)*</li> <li>▪ Cell constant 0.1 cm<sup>-1</sup>: 20.00 µS, 200.0 µS</li> <li>▪ Cell constant 0.01 cm<sup>-1</sup>: 2.000 µS, 20.00 µS</li> </ul>	<ul style="list-style-type: none"> <li>▪ 4 electrodes measuring cell with cell constant approx. 0.3 cm<sup>-1</sup> and integrated temperature sensor Pt 1000</li> <li>▪ 2 electrodes measuring cell with cell constant approx. 0.01 or 0.1 cm<sup>-1</sup> and integrated temperature sensor Pt 1000</li> </ul>
<b>MV5030</b> <b>MV5030CAN</b>	<ul style="list-style-type: none"> <li>▪ 0...200.0 %</li> <li>▪ 0...20.00 mg/l</li> <li>▪ -10.0...130.0 °C (Pt 1000)*</li> </ul>	<ul style="list-style-type: none"> <li>▪ membrane covered amperometric oxygen sensor with integrated temperature sensor Pt 1000</li> </ul>
<b>MV5060</b> <b>MV5060CAN</b>	<ul style="list-style-type: none"> <li>▪ Input 0(4)...20 mA</li> <li>▪ free programmable slope / concentration (i. e. 0...2.00 mg/l)</li> <li>▪ -10.0...130.0 °C (Pt 1000)*</li> </ul>	<ul style="list-style-type: none"> <li>▪ sensor with 2 wire output especially amperometric sensors for measurement of disinfectants (chlorine, chlorine dioxide, ozone) with integrated temperature sensor Pt 1000</li> </ul>

\* NTC or Pt 100 on request

▪ Type:

- |                                |                                |
|--------------------------------|--------------------------------|
| -MV50xx, MV50xxCAN             | 100...240 V AC, current output |
| -MV50xx-U, MV50xxCAN-U         | 100...240 V AC, voltage output |
| -MV50xx-24V, MV50xxCAN-24V     | 18...36 V DC, current output   |
| -MV50xx-U-24V, MV50xxCAN-U-24V | 18...36 V DC, voltage output   |

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