



pH mV  $\mu$ S mS O<sub>2</sub> Cl<sub>2</sub> ISE NTU



# KM 3000

Meinsberger Multi-Parameter Controller

多参数水质监测仪 – 来自德国迈格

**应用**

- 饮用水监测
- 水质监测
- 废水监测
- 电镀行业
- 过程化学
- 生物技术

**优势**

- 最多16通道参数  
同时处理测量和温度值
- 在清晰的彩色触摸屏上进行直观的操作
- 嵌入式PC可以进行软件定制和更新
- 多语言菜单

**高标志硬件和软件安全**

- 多种通讯接口：RS232, RS485, USB 和以太网口，以及模拟量：

0(4)...20mA接口

- 大容量内存，用于数据记录、存储并可传输于USB盘。

- 极限值、控制权和报警继电器输出。可选择PID控制器用于2参数。

- 内置GSM／GPRS猫，SMS通讯
- 100%向下兼容KM200系统

- 可视化软件“MVRremote”

由于先进的模块化的总线技术，多参数监测仪KM3000结合了高功能性，极高的可靠性和舒适的操作，满足客户定制化需求。配置多种水质传感器参数的测量，传输和评估，KM3000提供了一个完整的系统解决方案。

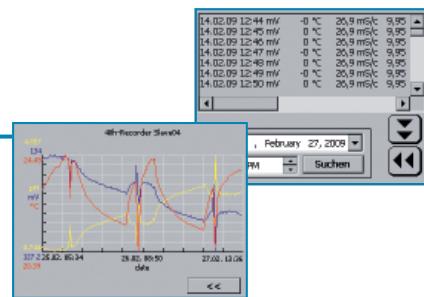
**Applications**

- Drinking Water Monitoring
- Water Monitoring
- Waste-Water Technology
- Electroplating
- Process Chemistry
- Biotechnology

**Features**

- up to 16 channels for simultaneous processing of measuring and temperature values
- intuitive and comfortable operation with clearly arranged color touch screen
- embedded PC allows simple integration of customized software or updates

- multi-language and quick menu navigation
- high standard of hard- and software safety
- common interfaces: RS232, RS485, USB and Ethernet (prepared) as well as 0(4) ... 20 mA
- extendable big-size memory for data logger and log-book, data transfer on USB-stick
- limit-, controller- and alarm relay outputs, selectable PID-controller for two parameters
- internal GSM / GPRS-modem, SMS
- 100 % compatible to KM 2000 system components
- visualization software “MVRremote” available



Because of the advanced modular bus technology the Multi-Parameter Controller KM 3000 combines high functionality, extremely high reliability and comfortable operation with nearly unlimited possibilities for custom-specific configuration. In all applications requiring the measurement, transmission and evaluation of several electrochemical quality parameters, whether on-line and with high reliability or in process control, the KM 3000 offers a complete system solution.

**配置选项 KM 3000 / Overview systems components\* KM 3000**

模块 / actor modules

内置模块/ internal	外置模块 / external	描述 / description
DAC3000CAN (max. 1)	DAC3000CAN (max. 4)	<ul style="list-style-type: none"> <li>■ 电流输出模块 / scaleable current outputs</li> <li>■ 4 x 0(4) ... 20 mA</li> </ul>
	REL2000CAN (max. 4)	<ul style="list-style-type: none"> <li>■ 4 继电器输出模块 / 4 floating relay outputs</li> <li>■ max. 3 A, 250 V AC (Schließer / NOC)</li> </ul>
PID2000 (max. 1)		<ul style="list-style-type: none"> <li>■ 2 双向PID-调节器 (模拟、脉冲和频率控制模块) / 2 bidirectional PID-controller (analog-, pulse- or frequency controller)</li> </ul>



## 系统组件 KM 3000 / Overview systems components\* KM 3000

测量模块 / Measuring modules

内置模块 / internal	外置模块 / external	参数测量范围/ measuring range	分辨率/ resolution	温度/temperature meas.
MVM2210	MV2210	<b>pH</b> 0 ... 14	pH 0,01	-10 ... 130 °C Res. 0,1 °C
MVM2215	MV2215	<b>氧化还原电位 / redox potential</b> -2000 ... +2000 mV	1 mV	-10 ... 130 °C Res. 0,1 °C
MVM2216	MV2216	<b>离子浓度 / ion concentration</b> <b>离子模块 (ISE) / sensor specific (ISE)</b>		-10 ... 130 °C Res. 0,1 °C
MVM2220	MV2220	<b>电导率(2-电极) / conductivity (2-pol)</b> 0 ... 200 µS/cm 0 ... 2000 µS/cm 0 ... 20 mS/cm 0 ... 100 mS/cm Auto range Salinität / salinity 2 ... 42 g/kg Widerstand / resistor	0,1 µS/cm 1,0 µS 0,01 mS/cm 0,1 mS/cm	-10 ... 130 °C Res. 0,1 °C
MVM2225	MV2225	<b>电导率 (4-电极) / conductivity (4-pol)</b> 0 ... 200 µS/cm 0 ... 2000 µS/cm 0 ... 20 mS/cm 0 ... 500 mS/cm Auto range Salinität / salinity 2 ... 42 g/kg Widerstand / resistor	0,1 µS/cm 1,0 µS 0,01 mS/cm 0,1 mS/cm	-10 ... 130 °C Res. 0,1 °C
MVM2230	MV2230	<b>溶解氧 / dissolved oxygen</b> 0 ... 200 % 0 ... 20 mg/l	0,1 % 0,01 mg/l	-10 ... 130 °C Res. 0,1 °C
MVM2260	MV2260	<b>余氯、二氧化氯 /concentration (chlorine-, dioxide, ...)</b> 0 ... 2(10) mg/l	0,01 mg/l	-10 ... 130 °C Res. 0,1 °C
MVM2260A	MV2260A	<b>电压输入 / voltage input</b> linear 0 ... 5 V DC		
MVM2260B	MV2260B	<b>电流输入 /current input for active sensors</b>  linear 0(4) ... 20 mA		
MVM2260C	MV2260C	<b>电流输入/current input for passive sensors</b>  linear 0(4) ... 20 mA, +15 V DC / 65 mA		
MVM2270	MV2270	<b>流量频率输入/ flow (vane sensor)</b> 0 ... 100 l/h Frequenz / Frequency (Hz)	0,1 l/h	

\* alle Komponenten sind kompatibel zum KM 2000 und KM 3000 / all components are compatible to KM 2000 and KM 3000

# KM 3000

## Multi-Parameter Controller

### ■ 规格

多参数监测仪 KM 3000

### ■ 测量参数

- pH / ORP
- 电导率 (2-电极, 4-电极)
- 氧浓度 (溶解氧或者气态氧)
- 余氯 / 总氯
- 离子浓度
- 浊度, 流量和其它

### ■ 温度补偿

- 温度电极 Pt 1000

### ■ 控制输出

- 4 继电器输出最大 5 A, 250 V AC
- 2 PID-控制器 脉冲 / 频率 / 模拟输出
- 可增加外部继电器输出模块

### ■ 接口

- 0(4) ... 20 mA, 全量程比例
- RS-232 和 RS-485 (ASCII- 和 Modbus-协议)
- Ethernet (TCP / IP),
- USB口用于USB卡, 打印机等

### ■ 固件更新

- 通过USB-卡

### ■ 显示

- 彩色触摸屏 5.7",  
320 x 240 像素, 背光

### ■ 48h-图形记录

- 最后48小时图形记录

### ■ 设置

- 通过USB口保存和设置, 通过  
“MVRremote”PC软件设置

### ■ 电压供电

- 115 / 230 V AC, 48 ... 63 Hz
- 15 ... 30 V AC / DC (内置)

### ■ 外壳

- 铝合金结构外壳

- IP 65防护等级

### ■ 尺寸 (B x H x T)

- 240 x 240 x 120 mm

### ■ 传感器接口

- 端子

### ■ EMV

- EN 61326, 89 / 336 / EWG

### ■ Specifications

Multi-Parameter Controller KM 3000

### ■ Measuring parameters

- pH / redox potential (ORP)
- conductivity (2-pol, 4-pol)
- oxygen concentration
- free chlorine / total chlorine
- ion concentration
- turbidity, flow and others

### ■ Temperature compensation

- automatically with Pt 1000

### ■ Controller outputs

- 4 floating relay outputs  
max. 5 A, 250 V AC
- 2 PID Controllers, pulse length /  
frequency / analog output
- additional external relay outputs  
available

### ■ Firmware update

- via USB-stick

### ■ Interfaces

- 0(4) ... 20 mA, scaleable
- RS-232 and RS-485  
(ASCII- and Modbus-protocol)
- Ethernet (TCP / IP), prepared
- USB Host for USB-stick,  
printer, and more

### ■ Display

- color touch screen 5.7",  
320 x 240 pixel, back-lighted

### ■ Data logging system

- 100.000 values inclusive time, date
- extendable via SD-card
- data transfer on USB-stick

### ■ Log-book

- 200 activities inclusive time,  
date and calibration parameters
- data transfer on USB-stick

### ■ Ambient temperature

- -10 ... 55 °C

### ■ Setup

- save and write via USB-stick
- read, edit, print and write setup file  
using visualization software  
“MVRremote” on PC

### ■ Power supply

- 115 / 230 V AC, 48 ... 63 Hz
- 15 ... 30 V AC / DC

### ■ Enclosure

- aluminum case for wall mounting  
with strip compartment
- protection IP 65

### ■ Dimensions (W x H x D)

- 240 x 240 x 120 mm (W x H x D)

### ■ Sensor connection

- terminals

### ■ EMC

- EN 61326, 89 / 336 / EWG



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