

## Laboratory multi parameter measuring system

### Laboratory multi parameter measuring system for generally analytics, bioreactor, pilot plant (in connection with external computer)

1 piece

#### Measuring Module pH

microprocessor based measuring module for measuring of pH-value/temperature, isolated inputs; possibility for connection of temperature sensor Pt 1000; electromagnetic compatibility to 89/336/EWG; EN 61326; spray watertight aluminium profile case (with dimension of 60 x 35 x 210 mm); protection standard IP 65, permissible ambient temperature -10°C ... 55°C; connection of pH combination electrodes with integrated temperature sensor through free cable ends (terminals) or DIN socket (DIN 19262) and 4 mm banana socket for banana plug;

power supply 12 ... 24 V AC/DC about plug; digital interface CAN bus,

measuring ranges: pH 0 ... 14

- 10 ... 130°C

**Type:** MV 2210

1 piece

#### pH Combination Electrode

glass stem  $\varnothing$  12 mm, immersion length 120 mm, ceramic frit, zero point pH=7, refillable electrolyte 3 mol/l KCl; built-in temperature probe Pt 1000, fixed cable 1 m with free cable ends (for terminals) or German DIN and 4 mm banana plug; pH-range 0 ... 14; temperature range - 5 ... 80°C

**Type:** EGA 141/Pt 1000

1 piece

#### Measuring Module Redox/ORP

microprocessor based measuring module for measuring of redox/ORP and temperature, isolated inputs; possibility for connection of temperature sensor Pt 1000; electromagnetic compatibility to 89/336/EWG; EN 61326; spray watertight aluminium profile case (with dimension of 60 x 35 x 210 mm); protection standard IP 65, permissible ambient temperature -10°C ... 55°C; connection of redox/ORP combination electrodes through free cable ends (terminals) or DIN socket (DIN 19262) and 4 mm banana socket for banana plug, power supply 12 ... 24 V AC/DC about plug; digital interface CAN bus,

measuring ranges: -2,000 ... + 2,000 mV absolute or temperature compensated calculation of the redox potential in relation to the Standard Hydrogen Electrode in accordance with DIN 38404 T6.

- 10 ... 130°C

**Type:** MV 2215

1 piece

#### Redox/ORP Combination Electrode

glass stem  $\varnothing$  12 mm, immersion length 120 mm, ceramic frit, platinum disk  $\varnothing$  6 mm; reference system Ag/AgCl, 3 mol/l KCl, refillable electrolyte 3 mol/l KCl; fixed cable 1 m with free cable ends (for terminals) or with German DIN plug; temperature range -5 ... 80°C,

**Type:** EMC 30

1 piece

#### Measuring Module Conductivity

microprocessor based measuring module for measuring of conductivity/temperature, isolated inputs; possibility for connection of temperature sensor Pt 1000; electromagnetic compatibility to 89/336/EWG; EN 61326; spray watertight aluminium profile case (with dimension of 60 x 35 x 210 mm); protection standard IP 65, permissible ambient temperature -10°C ... 55°C; clip connection for 2 electrodes conductivity cells and temperature sensor; power supply 12 ... 24 V AC/DC about plug ; digital interface CAN bus;

measuring ranges: 0 ... 100 mS/cm (auto range)

0 ... 80°C

**Type:** MV 2220

1 piece

**Conductivity Cell**

glass body,  $\varnothing$  12 mm, immersion length 120 mm; 2 parallel platinum electrodes, platinized, cell constant about  $1 \text{ cm}^{-1}$ ; built-in temperature probe Pt 1000, fixed cable 2 m without plug, measuring range 0...20 mS/cm; temperature range - 5...100°C,

**Type:** **LTG 1/23 T**

1 piece

**Measuring Module Dissolved Oxygen**

microprocessor based measuring module for measuring of dissolved oxygen/temperature, isolated inputs; possibility for connection of temperature sensor Pt 1000; electromagnetic compatibility to 89/336/EWG; EN 61326; spray watertight aluminium profile case (with dimension of 60 x 35 x 210 mm); protection standard IP 65, permissible ambient temperature -10°C ... 55°C; clip connection for dissolved oxygen probes with built-in temperature sensor; power supply 12 ... 24 V AC/DC about plug; digital interface CAN bus;

measuring ranges: 0 ... 20 (80) mg/l; 0 ... 120 (200) % air saturation  
0 ... 80°C

**Type:** **MV 2230**

1 piece

**Dissolved Oxygen Probe**

heavy-duty membrane covered amperometric Clark probe with built-in temperature probe Pt 1000 for automatic temperature compensation and temperature measurement, incl. accessories (1 piece exchange membrane head, electrolyte); zero current free, rugged multi layer membrane; air bubbles refused, minimum flow rate 12 cm/s, plastic stem, immersion length 120 mm,  $\varnothing$  12 mm, fixed cable 2 m without plug; measuring range 0 ...20 mg O<sub>2</sub>/l, temperature range -5 ...45°C,

**Type:** **MF 41 T**

1 piece

**Measuring Module “linear characteristic”**

microprocessor based measuring module for connection of water level-, flow through- or other sensors with integrated electronic and analog output signal; isolated inputs; possibility for connection of temperature sensor Pt 1000; electromagnetic compatibility to 89/336/EWG; EN 61326; spray watertight aluminium profile case (with dimension of 60 x 35 x 210 mm); protection standard IP 65, permissible ambient temperature -10°C ... 55°C; clip connection for sensor; power supply 12 ... 24 V AC/DC about plug ; digital interface CAN bus;

measuring ranges: 0 ... 5 V DC or 0(4) ... 20 mA  
-10 ... 130°C

**Type:** **MV 2260 A or MV 2260 B**

1 piece

**PC visual software program MVremote and interface adapter**

PC visual software program for measuring, calibration, displaying, storage and export of measuring values to an external PC (system requirements: minimum pentium 90, 24 MB RAM, 15 MB HDD) with an adequate PC connection cable (length 5 m), and interface converter CAN/RS-232, plug 115/230 V AC for power supply of maximum 16 measuring modules

**Type:** **MVremote**

1 piece

**Accessories and Replacement Parts**

triple – set Laboratory Buffer Solution 250 ml pH 4; pH 7; pH 10 (pH value 25°C); 250 ml cleaning solution, re-conditioning solution and filling/storage solution 3 Mol KCl,  
250 ml conductivity standard solution 0.1 N KCl (12.9 mS/cm, 25°C),  
250 ml redox buffer solution  $U_H = 427 \text{ mV}$ , pH=7 (25°C)

3 pieces replacement membrane heads for Dissolved Oxygen Probe, 6 ampoules electrolyte solution

**Type:** **Laboratory Buffer Solutions; Maintenance Kit pH  
Conductivity Standard Solution 0.1 N KCl  
Redox Buffer Solution  $U_H = 427 \text{ mV}$ , pH=7  
Maintenance Kit for Oxygen Probe MF 41**