

Multi parameter measurement for sewage, raw and waste water treatment

On-line multi parameter measuring system with column stand and protective roof incl. immersion housing for mounting in channels or open containers

1 piece

Multi Parameter Controller

microprocessor based Multi Parameter Controller for maximum 4 internal and up to 12 external measuring modules, with respectively 1 piece measuring modules for measuring of dissolved oxygen/temperature, conductivity, pH value, redox/ORP, isolated inputs; electromagnetic compatibility to 89/336/EWG; EN 61326, NAMUR recommendation NE 21,

measuring ranges: 0 ... 20 mg O₂ /l, 0 ... 120% air saturation

- 10 ... 50°C

0 ... 100 mS/cm

pH 0 ... 14

-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.

corrosion and weather resistant aluminium case with protection standard IP 65 (suitable for wall mounting and with additional accessory for post mounting) with strip compartment; power supply 115/230 V AC; 48 ... 63 Hz; about 25 VA; permissible ambient temperature -10°C ... 55°C; automatic temperature compensation; manual and automatic calibration; touch-screen display, back-lighted, for maximum 16 measuring parameters and device status; 4 analog outputs 0(4) ... 20 mA; measuring span for analog outputs free scaleable, digital interface RS-232 or RS-485 / CAN bus, integrated data logger (for about 50,000 values); log-book for storage of parameter alterations, calibration values and error registrations (about 200 activities); 4 on/off floating control relay outputs for switch and alarm function, configurable in any combination, maximum 5 A, 250 V AC, optional controller module with 2 selectable PID controller (for control of valves and dosing pumps) as constant analog-, pulse length- or pulse frequency controller

Type: KM 2000

1 piece

Column Stand with Protective Roof

column stand and protective roof for outdoor application of the Multi Parameter Controller and transient and lightning protection incl. all accessories for mounting; column stand with base plate, length 1,800 mm, material stainless steel 1.4571

Type: STWD 24

1 piece

Immersion Housing

immersion housing with 3 sensor ports PG 13.5 for pH combination electrode, redox/ORP combination electrode and conductivity cell, 1 sensor port PG 16 for dissolved oxygen probe with built-in temperature probe Pt 1000; sensor take in for support of the minimum flow rate and self cleaning, immersion housing in shape angular (45° from vertical); cable sealing by cable gland; application in open channels by means of wall mounting and in closed containers by means of fasten flange, material PVC, shaft diameter 75 mm; shaft length 1,000 mm, max. temperature 50°C;

Type: ET 32-411-O

1 piece

Dissolved Oxygen Probe

heavy-duty membrane covered amperometric Clarck probe with built-in temperature probe Pt 1000 in 4 wire connection for automatic temperature compensation and temperature measurement, incl. accessories (1 piece exchange membrane head, electrolyte); zero current free, extremely rugged multi layer membrane; air bubbles refused, minimum flow rate 5 cm/s, immersion length 120 mm, ø 18 mm, process connection with PG 16 threaded sensor body, multipin SixPlug plug head connection system; measuring range 0 ...60 mg O₂/l, temperature range -5 ...50°C, max. pressure 3 bar above atmospheric;

Type: MF 39

1 piece

Conductivity Cell

plastic body, \varnothing 12 mm, immersion length 120 mm; 2 parallel graphite electrodes (made of special graphite), nearly maintenance free cell; with built-in temperature probe Pt 1000; cell constant about 1 cm^{-1} ; Multipin PG 13.5 threaded SixPlug plug head; measuring range 0...20 mS/cm; temperature range -5...80°C, max. pressure 6 bar

Type: **LTC 1/23 SMEK**

1 piece

pH Combination Electrode

glass stem \varnothing 12 mm, immersion length 120 mm, ring-shaped sleeve junction, zero point pH=7, gel-filled (non refillable), low maintenance electrode, Euro-Standard PG 13.5 threaded plug head S7-system; pH-range 0 ... 14; temperature range - 5 ... 80°C, max. pressure 6 bar

Type: **EGA 173 I**

1 piece

Redox/ORP Combination Electrode

glass stem \varnothing 12 mm, immersion length 120 mm, ring-shaped sleeve junction, platinum disk \varnothing 6 mm; reference system Ag/AgCl, 3 mol/l KCl, gel-filled (non refillable), low maintenance electrode, Euro-Standard PG 13.5 threaded plug head S7-system; temperature range -5 ... 80°C, max. pressure 6 bar

Type: **EMC 173 I**

1 piece

Measuring Cable

rugged multipin screened measuring cable for connection between Controller and dissolved oxygen probe with built-in temperature probe Pt 1000, SixPlug plug head connector (protection standard IP 67)/ other side stripped tinned ends for connection with Controller, cable \varnothing about 5 mm, standard length 10 m

Type: **K 39/10**

1 piece

Connection Cable

rugged multipin screened cable for connection between Controller and conductivity cell with built-in temperature probe Pt 1000, SixPlug plug head cable socket (protection standard IP 67)/other side stripped tinned ends for connection with Analyzer, cable \varnothing about 5 mm; standard length 10 m;

Type: **K 18/10**

2 pieces

Measuring Cable

low-noise coaxial measuring cable for connection between Controller and pH and redox/ORP combination electrode, S7 plug head connector (protection standard IP 65)/second side stripped tinned ends for connection with Controller, cable \varnothing about 5 mm; standard length 10 m;

Type: **K 43/10**

1 piece

Accessories and Replacement Parts

triple – set NBS – Standard Buffer Solution 1000 ml pH 4.01; pH 6.87; pH 9.18 (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)

maintenance kit with 2 pieces replacement membrane heads, 6 ampoules electrolyte solution

Type: **NBS-Standard 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 39**