Water Treatment and Industrial Applications

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Tekna evo
SOLENOID DOSING PUMPS

Intelligent Display, once a function is selected the pump will only display the parameters to set, which are linked to the selected function

PVDF pump head and ceramic ball valve as standard
Automatic Switching Power Supply 100-240 Vac 50/60 Hz

TECHNICAL FEATURES

<table>
<thead>
<tr>
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<td>174</td>
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<td>0.17&quot; x 1/4&quot;</td>
<td>300</td>
<td>23.9</td>
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<tr>
<td></td>
<td>6.60</td>
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<td>1.39</td>
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<td>10.03</td>
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<td>2.22</td>
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<tr>
<td></td>
<td>14.27</td>
<td>14</td>
<td>3.00</td>
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<tr>
<td>803</td>
<td>5/16&quot; x 7/16&quot;</td>
<td>300</td>
<td>22.2</td>
<td></td>
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</tbody>
</table>

INNOVATIVE
- 2 versions: analogue and digital
- 3 models that cover 1.06 to 14.27 gph with an output pressure up to 174 psi
- One style configuration allows for easy planning and preparation for installations

LONG LIFE DIAPHRAGM TESTED TO GIVES YEARS WORKING LIFE
- The advanced design and manufacturing process allows the diaphragm to have a unique life expectancy
- Made of pure solid PTFE, the diaphragm is compatible with most chemicals
- The diaphragm has been tested over a period of 5 years giving superior results
- Routine diaphragm replacement is no longer a requirement
TEKNA EVO PRODUCTS LINE

ANALOGUE VERSION

AKL  [Constant dosage] with FPM level control input
Select from two frequency ranges (0÷20% or 0÷100%).
The constant flow rate is easily adjusted with the analogue control
dial, located on the front panel.
The Power-On led and level control indicators are also on this panel.

APG  [Proportional dosage] with FPM level control input
Analogue dosing pump with constant flow rate manually
adjustable, proportional flow rate according to an external
analogue (4÷20 mA) or digital pulse signal (e.g. from water meter).
- Control dial (percentage and “n” value in multiplication mode)
- 6 position adjustable switch:
  - 3 in division mode (1, 4, 10 = n)
  - 1 in multiplication mode (n=1)
  - 1 for proportional 4÷20 mA signal
  - 1 for constant functionality
- “pacing” function adjustable by dip switch

DIGITAL VERSION

TPG  [Proportional dosage] with FPM level control input
Digital dosing pump with constant flow rate manually adjustable, proportional
flow rate according to an external analogue (4÷20 mA) or digital pulse
signal (e.g. from water meter).
- Timer function, Batch dosing, ppm
dosing, Statistics, Password and On/Off
  input (remote switch)

TPR  [Proportional dosage] with FPM level control input
Digital dosing pump with pH/Redox
control meter built in.
- Digital interface for constant or
  proportional dosing, depending on the
  measured pH or Rx value
- PT100 probe input for thermal
  compensation
- Repetition alarm relay
- Input On-Off for remote control
- 4÷20 mA output

TCK  [Timed dosage] with FPM level control input
Digital dosing pump with a manually
adjustable flow rate or timer control.
- Programmable timed relay
Level control input

Manual priming valve

Electrical connections are configured with "quick-connectors", capped when not in use

PTFE diaphragm. Standard pump head in PVDF

Case made in PP reinforced with fiber glass.

NEMA 4X rated

Complete standard installation kit includes:
- PVDF foot filter and injection valve
- PVC suction tube
- PE delivery tube

Standard power supply

Automatic Switching 100-240 Vac 50-60 Hz

MATERIALS USED IN THE PUMP HEAD

<table>
<thead>
<tr>
<th>BODY</th>
<th>PVDF</th>
</tr>
</thead>
<tbody>
<tr>
<td>BALL VALVES</td>
<td>PVDF</td>
</tr>
<tr>
<td>BALLS</td>
<td>CERAMIC</td>
</tr>
<tr>
<td>DIAPHRAGM</td>
<td>PTFE</td>
</tr>
</tbody>
</table>

- PVDF is suitable for almost all chemicals used in the Industrial, Waste Water Treatment and potable Water applications.
- Ceramic balls are used to ensure chemical compatibility and pump reliability.

The parts in contact with the liquid have been chosen in order to guarantee perfect compatibility with most chemical normally in use.

PERFORMANCE CURVE

DIMENSION [inches]

<table>
<thead>
<tr>
<th>Model</th>
<th>603</th>
<th>800</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (Height)</td>
<td>9.09 &quot;</td>
<td></td>
</tr>
<tr>
<td>B (Width)</td>
<td>4.68&quot;</td>
<td></td>
</tr>
<tr>
<td>C (Depth)</td>
<td>5.70&quot;</td>
<td>5.86&quot;</td>
</tr>
<tr>
<td>D (Max Height)</td>
<td>10.11&quot;</td>
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</table>
Kontrol 500/502
SINGLE AND TWIN-PARAMETER
CONTROL INSTRUMENTS

The Kontrol 500-series are advanced controllers designed for high-end applications. The units feature independent proportional PID-enabled control outputs, RS 485 serial port with MODBUS protocol, USB port on request, probe quality checking, a variety of outputs and full data logging capability. The user has full programming authority.

FEATURES

DATA LOGGING
Internal Flash Memory with records interval from 1 to 99 min. (near to 16000 records). Visualization key for stored data in tabular and graphic form. Type: Circular (F.I.F.O.) or Filling.

RS485 SERIAL PORT
For set-up and real-time data acquisition from remote or for stored data download on PC or laptop (Communication Software Master Controller NET required). MODBUS RTU communication protocol.

USB PORT
Download measuring data on removable memory Usb Pen Drive (upon request).

MEASURE INPUT
- High measuring resolution with probe quality control.
- A modular measuring system
- Chlorine measure in sea water application.

CURRENT OUTPUTS
4÷20mA Galvanic isolation Two independent programmable. Output Measures with PID routine regulation.

RELAY OUTPUTS
Four independent relais, two set points, one alarm remote output, on backwashing probe output. On/ OFF, Timed routine function setting.

MEASURE RANGE

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>0…14,00 pH</td>
</tr>
<tr>
<td>ORP</td>
<td>± 1500 mV</td>
</tr>
<tr>
<td>Conductivity</td>
<td>0…20 μS; 0…200 μS; 0…2,000 μS; 0…20,000 μS; 0…200,000 μS</td>
</tr>
<tr>
<td>Dissolved Oxygen</td>
<td>0…20,0 ppm or mg/l; 0…200% SAT</td>
</tr>
<tr>
<td>Temperature</td>
<td>with PT100 32…212 °F (0…100°C)</td>
</tr>
</tbody>
</table>

PRODUCTS LINE

<table>
<thead>
<tr>
<th>Single parameter</th>
<th>Kontrol PR 500</th>
<th>pH or ORP</th>
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</thead>
<tbody>
<tr>
<td>Kontrol CD 500</td>
<td>Conductivity</td>
<td></td>
</tr>
<tr>
<td>Kontrol OX 500</td>
<td>Dissolved Oxygen</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Double parameters</th>
<th>Kontrol PR-PR 502</th>
<th>pH/ORP - pH/ORP</th>
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<tbody>
<tr>
<td>Kontrol PR-CD 502</td>
<td>pH/ORP - Conductivity</td>
<td></td>
</tr>
<tr>
<td>Kontrol PR-OX 502</td>
<td>pH/ORP - Dissolved Oxygen</td>
<td></td>
</tr>
</tbody>
</table>

APPLICATIONS

- Waste Water
- Drinking Water
- Cooling Towers
- Boiler
- Legionella disinfection
- Reverse Osmosis
- Sludge
- Crate Wash
- Galvanic Process
- Dioxide Station
- CIP
- Irrigation
- Swimming Pool
- Fish Farming
- Sea water
- Dairy
Kontrol 200
SINGLE-PARAMETER CONTROL INSTRUMENT

The Kontrol 200-series are advanced controllers designed for simpler high-end applications. The units feature an independent proportional control output, probe quality checking and a variety of outputs. The user has full programming authority.

FEATURES

MEASURE INPUT

- High measuring resolution with probe quality control.
- A modular measuring system
- Chlorine measure in sea water application.

CURRENT OUTPUTS

4÷20mA Galvanic isolation Two independent programmable. Output Measures with PID routine regulation.

RELAY OUTPUTS

Four independent relays, two set points, one alarm remote output, on backwashing probe output. On/OFF, Timed routine function setting.

PRODUCTS LINE

Single parameter | Kontrol PR 200 | pH or ORP
Kontrol CD 200 | Conductivity
Kontrol OX 200 | Dissolved Oxygen

APPLICATIONS

- Waste Water
- Drinking Water
- Cooling Towers
- Boiler
- Legionella disinfection
- Reverse Osmosis
- Sludge
- Crate Wash
- Galvanic Process
- Dioxide Station
- CIP
- Irrigation
- Swimming Pool
- Fish Farming
- Sea water
- Dairy

MEASURE RANGE

<table>
<thead>
<tr>
<th>Measure</th>
<th>Range</th>
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<tbody>
<tr>
<td>pH</td>
<td>0…14,00 pH</td>
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<tr>
<td>ORP</td>
<td>± 1500 mV</td>
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<td>Temperature</td>
<td>with PT100 32…212 °F (0…100°C)</td>
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</table>

Enclosure box wall mounting ABS plastic material IP65 (144x144) and panel mounting IP54 (96x96)

Universal Power Supply 100…240 Vac 50/60 Hz

Graphic display 128 by 64 pixel resolution monochrome display with graphic icons to show: digital outputs’ status, data storage, washing cycle, alarms.
### Probes

<table>
<thead>
<tr>
<th>Probes model</th>
<th>Range</th>
<th>Min. conduct.</th>
<th>Constant</th>
<th>Max. temperature</th>
<th>Max. pressure</th>
<th>Body material</th>
<th>Connections</th>
<th>Mounting</th>
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<tbody>
<tr>
<td>SPH 1 S6</td>
<td>0÷14 pH</td>
<td>50 μS</td>
<td>-</td>
<td>140 °F</td>
<td>101.52 psi</td>
<td>Epoxy 12x120</td>
<td>6.56 yd and BNC Cable</td>
<td>Standard 12</td>
</tr>
<tr>
<td>SRH 1 PTS6</td>
<td>±2000 mV</td>
<td>-</td>
<td>-</td>
<td>140 °F</td>
<td>101.52 psi</td>
<td>Epoxy 12x120</td>
<td>6.56 yd and BNC Cable</td>
<td>Standard 12</td>
</tr>
<tr>
<td>PT 100 V</td>
<td>0÷100°C</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>101.52 psi</td>
<td>Glass 12x120</td>
<td>5.46 yd Cable</td>
<td>Standard 12</td>
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<tr>
<td>CTK 10</td>
<td>0.01÷500 μS</td>
<td>-</td>
<td>K =10 cm</td>
<td>-</td>
<td>-</td>
<td>PP</td>
<td>4-poles M connector</td>
<td>¾ &quot; G.M.</td>
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<tr>
<td>CTK 5</td>
<td>0.5÷2000 μS</td>
<td>-</td>
<td>K = 5 cm</td>
<td>212 °F</td>
<td>-</td>
<td>PP</td>
<td>Electrodes in SS 316, IP65</td>
<td>4-poles</td>
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<tr>
<td>CTK 1</td>
<td>5÷5000 μS</td>
<td>-</td>
<td>K = 1 cm</td>
<td>-</td>
<td>-</td>
<td>PP</td>
<td>Electrodes in Graphite</td>
<td>Cable 8.74 yd</td>
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<tr>
<td>CTK 1G</td>
<td>5÷20 μS</td>
<td>-</td>
<td>K = 1 cm</td>
<td>140 °F</td>
<td>-</td>
<td>PP</td>
<td>Electrodes in Graphite</td>
<td>4-poles</td>
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<tr>
<td>Oxysens</td>
<td>0÷20ppm</td>
<td>-</td>
<td>-</td>
<td>140 °F</td>
<td>-</td>
<td>Silver-platinum</td>
<td>Cable 5.46 yd</td>
<td>PG 13.5</td>
</tr>
</tbody>
</table>

**PSS3 In-line Probe Holder**
- Material: PVC
- Max. Temperature: 140 °F
- Max Pressure: 174.04 psi
- Connections: ½" G.M.

**Cables for CTK probe with 4-pole connectors**
- 5-pole cable (3 PT100, 2 sensor) with screen and PVC sheath complete with female connector.
- Connections: ½" G.M.
- Length: 5.46 or 10.93 yd

**Certified buffer solutions**
- The precision and reliability of a pH, Redox or Conductivity measurement is determined by the buffer solution used for calibrating the probe.
- Value: 4.00 pH at 68°F or 465 mV at 77°F.