Series 3000
Metso Portable Conductivity Measurement
The Portable Conductivity TCU

The portable series 3000 is a reference transmitter for conductivity and/or concentration measurements. Four (4) individual set-up modes are available, each with a complete recipe and individual setting of output range and calibration.

**Technical data**
- Conductivity measurement range: 55 nS/cm to 1000 mS/cm
- Accuracy: ±0.25 %
  (0.5 % of reading from 10 μS/cm to 0.035 μS/cm + 2 ± 1 nS/cm)
- Sampling rate: 3 samples/sec.
- Built-in temperature compensations for UPW, std. Salt, lye or acid.
- Temperature measuring range: -40 °C to +250 °C by using sensor with built-in Pt 1000 4-wire interface
- Display: LCD
- Backlight: ON/OFF
- Two (2) analog outputs for external datalogger.

**Enclosure**
- Casted aluminium case
- Protection class: IP 65/DIN EN 60529
- Power supply: One (1) industrial LI-ion
- Battery endurance:
  Approx. 150 hours of operation with backlight turned off.
  Approx. 30 hours with backlight turned on.
- Battery charging time: Primary - 3 hours, USB - 5 hours
- Battery charger: Mini USB port or primary
  Primary: 100-240 V ~ 50/60 Hz 5 VA 100 mA,
  Dimensions: 65 x 40 x 35 mm (weight: 0.1 kg)

**TCU types**

<table>
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<tr>
<th>TCU Type</th>
<th>Setup 1</th>
<th>Setup 2</th>
<th>Setup 3</th>
<th>Setup 4</th>
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<td>3001</td>
<td>UPW Conductivity</td>
<td>UPW Conductivity</td>
<td>STD Conductivity</td>
<td>STD Conductivity</td>
</tr>
<tr>
<td>3003</td>
<td>UPW Conductivity</td>
<td>STD Conductivity</td>
<td>Concentration</td>
<td>Concentration</td>
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</table>
The Portable sensors and accessories

**Metso flow sensor 4049 (UPW)**

Technical data
- Materials: PTFE, EPDM, silicone rubber and W1.4404 (AISI 316L) steel.
- Flow chamber: W1.4404 (AISI 316L) steel.
- Maximum: 2 bar at 100 °C
- Range: From 2000 to 0.055 μS/cm cable
- Calibration points: 0.1 μS/cm, 5 μS/cm, 500 μS/cm
- Sensor cable: 1 meter
- Weight: 0.7 kg

**NOTE:**
Calibrated in flow chamber. If used without flow chamber, a cell constant correction is required.

**Metso conductivity sensor 4043 (high conductivity)**

Technical data
- Materials: PVDF, EPDM, silicone rubber, W1.4404 (AISI 316L) steel and DURAN® Borosilicate glass 3.3.
- Maximum: 2 bar at 100 °C
- Range: From 200 000 to 0.5 μS/cm
- Calibration points: 100 μS/cm, 10 mS/cm, 200 mS/cm
- Sensor cable: 1 meter
- Weight: 0.5 kg

**NOTE:**
Calibrated in flow chamber. If used without flow chamber, a cell constant correction is required.

**Metso sensor 4039 for strong acids**

Technical data
- Max.: 12 bar at 120 °C
- Range: From 2000 to 0.1 mS/cm
- Calibration points: 10 mS/cm, 100 mS/cm, 500 mS/cm
- Cable: 1 meter
- Weight: 2.0 kg

**Metso dip sensor 4029**

Technical data
- Materials: PTFE, EPDM, silicone rubber and W1.4404 (AISI 316L) steel.
- Maximum: 25 bar at 210 °C
- Range: From 2000 to 0.055 μS/cm
- Calibration points: 0.1 μS/cm, 5 μS/cm, 500 μS/cm
- Sensor cable: 1 meter
- Weight: 0.7 kg

**Complete kits**

<table>
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<th>Type 3012 - High conductivity kit</th>
<th>Type 3013 - Concentration kit</th>
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<td>TCU 3001 and charger</td>
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<td>TCU 3003 and charger</td>
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<td>Sensor 4049</td>
<td>Flow chamber 74</td>
<td>Sensor 4039</td>
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<td>Datalogger 378</td>
<td>Sensor 4043</td>
<td>Flow chamber 76</td>
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<td></td>
<td>Datalogger 378</td>
<td>Datalogger 378</td>
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</table>

**Carrying case 349 for second sensor**

**Carrying case 349 for TCU, sensor, datalogger and charger**

**Carrying case 369 for second sensor**

**Carrying case 349 for TCU, sensor, datalogger and charger**

**Data logger 378**

**PVDF flow chamber 76**
With Metso Portable Conductivity, you are well prepared for anything, anywhere.....

Series 3000
Metso Portable Conductivity Measurement

Accurate control of conductivity measurement

Rugged portable conductivity measurement kit for calibration or verification of conductivity or concentration results. The instruments can be carried in an aluminum case to contain sensor, flow chamber, battery charger and datalogger. Measuring with or without temperature compensation in all ranges. For the verification of process water and ultrapure water, the instrument can be factory-calibrated in 3-5 points with traceability to international standards. The Metso Portable Conductivity Measurement is designed for use at on-site locations or for laboratory.

- Designed for industrial environments
- Protection class: IP 65/DIN EN 60529
- Easy to carry around and operate
- Flexible handle
- Stand alone datalogger with LCD display
- Auto powersave at battery low
- Charge from any USB port


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www.metso.com/conductivity

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