L40 LIQUID CONDUCTIVITY METER

The L40 Liquid Conductivity Meter is an essential diagnostic instrument for electrostatic hazard control.

The motion of low conductivity liquids, such as fuels and solvents, can result in the generation of hazardous levels of static electricity. Stirring, pouring and, in particular, flow through metal or plastic pipes are all examples of industrial operations which can produce ignition, fires and explosions.



PERFORMANCE

- The L40 measures electrical conductivity to below 1 $pS.m^{-1}$. This is an essential capability in investigating ignition hazard.

ESSENTIAL QUALITIES

- Direct read-out of conductivity on back-lit digital display.
- Auto-ranging covers 0-1 $pS.m^{-1}$ to 1.0 x 10^{8} $pS.m^{-1}$.
- Microprocessor controlled auto-zeroing before every measurement.
- External stainless steel metering cell. Metering dose volume 36 ml.

CONNECTIVITY AND CONTROL

- Integrated rechargeable battery provides alternative power source to the 110 – 240 V supply, where portability is required.

APPLICATIONS

- Accurate measurement of conductivity in liquids.

SPECIFICATION

Metering Cell Volume: 36 ml.
Electrode Spacing: 10 ± 0.8 mm.
Bias Voltage: 5 V DC.
Total Measurement Range: 0.1 $pS.m^{-1}$ - 1.0 x 10^{8} $pS.m^{-1}$.
Power Supply: Internal rechargeable battery cells and mains 110-240 V, 50-60 Hz.
Time For Full Battery Charge: 16 hours (overnight).
Low Battery: Indication on digital display.
Options (not included in basic kit): Spare metering cell. Low-volume metering cell.

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LIQUID CONDUCTIVITY

Liquid conductivity is an important parameter particularly when assessing the electrostatic hazard associated with liquid handling processes. Liquid conductivity is inversely related to the time it takes for charge on the liquid to dissipate to earth and a low conductivity implies a long charge relaxation time. This in turn leads to a higher risk of producing an ignition.

It is essential when dealing with flammable fuels and solvents of conductivity less than 500 $pS.m^{-1}$ to consider measures to combat electrostatic ignition hazards. Such measures should not be necessary with relatively conductive liquids greater than 500 $pS.m^{-1}$.

The model L40 Liquid Conductivity Meter out-performs many instruments by measuring electrical conductivity to below 1 $pS.m^{-1}$; this is an essential requirement for determination of ignition hazard. The instrument is easy to use with a direct readout of conductivity on a back-lit digital display and is auto-ranging covering 0.1 $pS.m^{-1}$ - 1.0 x 108 $pS.m^{-1}$. High precision is achieved by an inbuilt microprocessor-controlled auto-zeroing function before every measurement. The metering cell takes only 36 ml of liquid and is connected to the body of the instrument by short signal cables. This avoids damage to the instrument fascia panel in the event of liquid spillage. The stainless steel cell can be detached from its PTFE base for sample collection and ease of cleaning. Additional cells are available enabling multiple sample collection.



Instrument supplied in carrying case.