Vision on quality
www.tqc.eu

LOW VOLTAGE PINHOLE DETECTOR
LD8100, LD8105

DATASHEET

PRODUCT DESCRIPTION

The TQC Low Voltage Pinhole detector enables you to inspect various coatings on conductive substrates for small defects such as holidays and pinholes using the 'wet sponge technique'.
To have full access in any area a special Low Voltage Expansion Kit is available. This kit contains all kinds of useful accessories

BUSINESS

Protective Coatings, Corrosion Control, Coating Laboratories, Paint Production, Surface Finishing, Powder Coating

STANDARDS

ISO 8289-A, ISO 14654:1999, BS 7793-2:1996, ASTM D 5162-A, JIS K 6766:2008, TM0384-2002

FEATURES

- Color Display with battery indicator and menu based user interface
- Intuitive single button controls
- Visual, audible and tactile feedback*
- Return cable connectivity detection*
- Smart power saving features (screen dimming, standby, auto power-off)
- Detected pinhole counter
- Automated self-diagnostics

* Depending on model

SCOPE OF SUPPLY

The TQC Low Voltage Pinhole Detector-Basic (LD8100) comes in a carton box with the following items:

- TQC Low Voltage Pinhole Detector - Basic
- Sponge wand
- Grounding cable with clamp
- Calibration certificate
- User manual

The TQC Low Voltage Pinhole Detector-Advanced (LD8105) comes in a carton box with the following items:

- TQC Low Voltage Pinhole Detector -Advanced
- Sponge wand
- Grounding cable with clamp
- Calibration certificate
- User manual

TQC B.V.
Molenbaan 19
2908 LL Capelle aan den IJssel
The Netherlands
phone: +31 (0)10-7900100
fax: +31 (0)10-7900129
e-mail: info@tqc.eu
www.tqc.eu

ORDERING INFORMATION

Article N0.	Model name	Voltages (DC)
LD8100	TQC Pinhole Detector Basic	9, 90
LD8105	TQC Pinhole Detector Advanced	9, 24, 67.5, 90

ACCESSORIES

LD8155 Low Voltage Expansion Kit
To have full access in any area a special Low Voltage Expansion Kit is available. This kit comes without the Low Voltage Pinhole Detector, however the detector and its standard accessories can be stored in it.
The kit comes in a sturdy suitcase that contains:

	ACCESSORY	PURPOSE
1.	Telescopic stick	Extension arm for several sponges (Basic sponge ,role sponge, universal sponge) 350-820 mm / 13.8-32.3 inch, 3 sections
2.	Roller-sponge	Eases use on large flat surfaces
3.	Spare sponge	Spare roller sponge piece
4.	Universal clamp	Universal clamp for clamping the customizable sponge
5.	Customizable sponge	Extra sponge that can be cut by the inspector
6.	Scissors	To cut the sponge
7.	Magnet ground clamp	To connect the pinhole detector to the tested material
8.	Plastic bottle	To be filled with wetting agent (formula in manual)
9.	10 m Cable 4 mm	Extra long ground cable
10.	1,25 m Cable 4 mm	Extension cable for the telescopic stick
11.	M6 hexagonal adapter	Adapter to connect the basic sponge or the universal sponge to the telescopic stick

TQC B.V. Molenbaan 19 | 2908 LL Capelle aan den IJssel The Netherlands | phone: +31 (0)10-7900100 fax: +31 (0)10-7900129 | e-mail: info@tqc.eu www.tqc.eu

Vision on quality
www.tqc.eu

SPECIFICATIONS

Model:	LD8100	LD8105
TQC Pinhole Detector:	Basic	Advanced
Voltages (DC):	9, 90	9, 24, 67.5 and 90
Measuring Range:	Up to maximum 500 µm coating thickness	
Voltage Accuracy:	±5 % at 9 V, 24 V and 67.5 V and ±5 % at 90 V	
Sensitivity:	100 kΩ for all voltages	
Headphone Connector Type:	3,5 mm jack plug	
Headphone Output Power:	maximum 150 mW	
Headphone Output Impedance:	Approximately 75 Ω	
Instrument Dimensions:	190 x 40 x 45 mm / 7.5 x 1.6 x 1.8 inch	
Instrument Weight:	460 g	
Weight inclusive sponge:	600 g	
Display:	Graphic color display, 1 inch, 96 x 64 px	
Operation:	Single button, microprocessor menu controlled	
Measuring speed:	Continuous	
Units:	On/Off indication (defect/intact)	
Operating Relative Humidity:	0-85 % rH	
Operating Temperature:	-10 °C to 50 °C / 14 °F to 122 °F	
Factory Calibration:	Inclusive using traceable standards	
Re-Calibration:	Possible	
Battery Saving:	Configurable in menu	
Software:	Firmware update possibility	
Battery Lifetime (continuous use):	up to 130 hour (depending on the type of battery used)	

Can be used in accordance with the following standards:
ISO8289, ISO 14654, ASTM5162, NACE RP0188, NACE SP0188, ASTM G62, BS 7793-2, ASTM D 5162-A, JIS K 6766, TM0384

USE

See detailed manual

SPECIAL CARE

General maintenance
When not using the Pinhole Detector, store it in the box provided. Do not use compressed air to clean the device. When cleaning is required, use a (slightly damp) cloth and minimal pressure to remove any stains. For persistent stains a small amount of isopropyl alcohol may be used. When this is insufficient do not use any harsh chemicals such as solvents or abrasives as these may damage your device and void your warranty.

TQC B.V. Molenbaan 19 | 2908 LL Capelle aan den IJssel The Netherlands | phone: +31 (0)10-7900100 fax: +31 (0)10-7900129 | e-mail: info@tqc.eu www.tqc.eu

Display maintenance
Be gentle while cleaning the device, in particular while cleaning the display. Be careful not to apply to much pressure since the glass display may break. For the same reason be diligent not to subject the device to impacts of any kind. Exposure to extreme temperatures (>60 °C) should also be prevented as this may damage the display. This can occur when leaving the device in an enclosed space and/or in direct sunlight for a prolonged period of time, for example in a car.

Cables and connectors
It is possible to connect the device to a computer for firmware updates. Under normal conditions this will not be required, end users will be informed if updates are available. Please make sure connectors and cables are undamaged before making a connection.

Heat, moisture and dust
Protect the device from extreme heat. Do not leave the device on the dashboard of a car, near heaters or furnaces, or use direct heat to dry a wet device. When drying is required use a moisture absorbing cloth. Exposing the device to extreme temperatures may damage the screen, the plastic parts as well as the internal components. Do not leave the device in extremely dusty or wet places. Excessive dust and moisture exposure might damage the device and cause malfunctions or defects.

SAFETY PRECAUTIONS

DANGER
People with for instance a pacemaker or heart problems should completely avoid the use of this device.

WARNING: Risk of electric shock
The TQC Low Voltage Pinhole Detector (possibly) uses of tensions that may cause a mild electric shock. The earth clamp detection will switch off the voltage of the device once it is removed from the substrate, yet the risk of electric shock remains, particularly if the device isn't used properly. It is strongly recommended at all times to hold the device UNDER the button and avoid each contact with the top plate (the live part) The use of gloves is also recommended.

- Not suitable to be put in the sun or in the high light
- Avoid using it in over-high or over-low temperature environment
- Avoid humidity
- Always make sure the instrument is connected to an earthed electric socket.
- Always make sure the instrument's power is turned off while adjusting any electric component

DISCLAIMER

The right of technical modifications is reserved.
The information given in this sheet is not intended to be exhaustive and any person using the product for any purpose other than that specifically recommended in this sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. Whilst we endeavour to ensure that all advice we give about the product (whether in this sheet or otherwise) is correct we have no control over either the quality or condition of the product or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability whatsoever or howsoever arising for the performance of the product or for any loss or damage (other than death or personal injury resulting from our negligence) arising out of the use of the product. The information contained in this sheet is liable to modification from time to time in the light of experience and our policy of continuous product development.

TQC B.V.
Molenbaan 19
2908 LL Capelle aan den IJssel
The Netherlands
phone: +31 (0)10-7900100
fax: +31 (0)10-7900129
e-mail: info@tqc.eu
www.tqc.eu