TEQTO

CRACK DEPTH METER ET-28

A high-precision, hand-held instrument explicitly designed for measuring the depth of cracks on various metals and alloys, including stainless steel and duralumin, which have been previously detected by other methods.

Non-destructive measurement of crack depths in metals and alloys

- Operates on the principle of AC electro-potential measurement, providing prompt and precise depth testing compared to traditional methods. It works most efficiently in combination with other crack-revealing methods, such as magnetic particle, capillary, or eddy-current testing.
- Suitable for measurement on both ferromagnetic and non-ferromagnetic materials (e.g., stainless steel, aluminum alloys).
- Wide measuring range from 0.2 to 100.0 mm.
- Minimal influence of material electromagnetic properties on measurement results.
- Equipped with various probe designs for inspecting products of irregular shapes.
- Mobile spring-loaded contact electrodes on the probe enable measurements on curved surfaces.

Application

- Shafts, rolls, rolling mills, construction components, machines, and mechanisms
- Pipes, tubes, oil-and-gas pipelines
- Pressure vessels
- Energy industry devices

Stages of crack depth measuring

- Setting of the “0” – measure on an undamaged area of the object.
- Measuring of crack depth – position the contact electrodes on opposite sides of the crack, and the depth measurement in mm will be displayed on the screen.

Probes

Standard probe “1×4”.
Included with the device.
*Available for separate order.

Special probe “2×2”.
For hard-to-reach areas (e.g., fillets)*.

Special probe “3×1”.
For cracks deeper than 30 mm (with external electrode)*.

Main technical parameters

Characteristic	Value
Measuring range (crack depth)	0,5 – 30 mm
Estimating range (approximate crack depth)	30 – 100 mm
Measurement accuracy	up to 20 %
Maximum crack width (depending on probe design)	up to 3,5 mm
Minimum crack length	5 crack depths, minimum 3 mm
Dimensions of electronic unit	150x80x30 mm
Weight	0.5 kg
Operating temperature range	+5 … +40 °C
Operating relative air humidity	30 – 80%

Requirements for control objects

- Surface roughness of 40 Rz (10 Ra) or less.
- Stable electrical contact with the probe electrodes.

Delivery set

1. Electronic unit with accumulator
2. Probe “1×4”
3. Test block with 1 crack
4. Charger
5. Carrying and storage bag

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