

elcometer® 280 DC Portable Holiday Detector

Can be used in accordance with: **ISO 29601**

AS 3894.1, ANSI/AWWA C203, ANSI/AWWA C214, ASTM D4787, ASTM D5162, ISO 29601, JIS G 3491, JIS G 3492, NACE RP0274, NACE SP0188, NACE SP0490, NACE TM0186, NACE TM0384

The premature corrosion of a substrate is often due to the failure of its coating. Major causes of failure are flaws in the finished coating, these include **pinholes, holidays, inclusions, thin spots and bubbles**. The consequent cost of repairs, loss of production and contamination of the process can be considerable. Early inspection of coating flaws will prevent the expense and inconvenience of failure.



Features

The Elcometer 280 is a 'stick type' holiday detector which has been designed to make pulsed DC high voltage holiday detection safer, easier and more reliable than ever before.

Using state of the art electronics, the Elcometer 280 allows users to inspect coatings - without connecting the earth return lead to the component substrate - ideal for inspecting large surfaces and pipelines.

- Flashing display, bright LED and a user adjustable volume alarm indicates detection of a holiday
- 0.5 - 35kV range (user selectable) for detecting porosity in coatings up to 25mm thick
- Safety trigger integrated inside the handle cuts power if released
- Rugged, shock proof and water resistant design to ensure long life - even in harsh environments
- Balanced, ergonomic design, complete with shoulder strap allows long periods of continuous use
- A wide range of interchangeable probe accessories available - compatible with all Elcometer holiday detectors
- Ideal for testing clean, damp, dirty or slightly conductive coatings
- Voltage calculator automatically sets the correct voltage from your coating thickness value
- Internal jeep tester ensures that the selected voltage equals the test voltage

The Elcometer 280 uses the high voltage pulsed DC technique to detect holidays in coatings - even if the coating is damp, dirty or slightly conductive.

From the two stage safety switch, bright LED's and screen icons signifying when the high voltage is on, to the extended ribbing to protect the user from spark creep, the Elcometer 280 sets the standard for high voltage measurement safety.

Using the wide range of probe accessories users can detect porosity / holidays in coatings up to 25mm thick.

Rugged, shockproof and water resistant, each unit is designed for use even in the harshest of environments.

- **Specialised extended ribbing**
designed to standard EN61010, ribs provide additional protection to the user during use
- **Integrated safety trigger switch**
switches off the high voltage if released
- **Quick release battery pack**
fully charged in 4 hours, provides up to 30+ hours of continuous use*
- **Earth return lead socket**
including ¼ turn lock/release to ensure connection during testing
- **Rubberised second hand grip**
provides greater control and balance during testing
- **Large, waterproof buttons**
ideal for use - even in gloves
- **High Voltage ON/OFF**
separate button minimises risk of accidental switch on
- **Clear, backlit LCD display**
shows all relevant information, even in dark environments
- **Shoulder harness point**
strap can be quickly clipped on as required

* the battery life is dependent on selected voltage and load applied - see Technical Specification for more information

Technical Specifications

Description

	Model S	Model T
Elcometer 280 Pulsed DC Holiday Detector	D280-S----	D280-T----
Elcometer 280 Pulsed DC Holiday Detector Inspection Kit	D280-S-KIT	D280-T-KIT
Rugged, Shock Proof & Water Resistant	•	•
Integrated Safety Trigger Switch	•	•
Quick Release Battery Pack	•	•
Internal Jeep Tester	•	•
Integrated Voltage Calculator		•
Pulsed DC High Voltage Range	0.5kV - 35kV	
Voltage Adjustment	User adjustable: 0.5 - 1kV: 10 Volt steps, 1 - 35kV: 100V steps	
High Voltage Output Accuracy	±5% or ±50V below 1000 Volts	
Pulse Repetition Rate	30Hz	
Operating Temperature	0°C to 50°C	
Power Supply	Rechargeable lithium ion battery, fully charged within 4 hours	
Typical Battery Life	Battery life is dependent on selected voltage and load applied; 12" (DN305) Rolling Spring: 30 hours at 10kV; 12 hours at 35kV 40" (DN1016) Rolling Spring: 22 hours at 10kV; 8 hours at 35kV	
Instrument Case Dimensions	PC ABS case; (l x w x h): 603 x 219 x 193mm	
Weight (no probes attached)	3.0kg - including battery pack	
Certificate available	Certificate of Calibration: issued for Fixed Calibration equipment and shows readings and traceability.	

Standards

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Standards not in bold have been superseded but are still recognised in some industries.

Packing Lists

Elcometer 280 Pulsed DC Holiday Detector Gauge (Model S or T)

- 5m trailing signal return lead
- battery pack
- battery charger with mains cables
- shoulder strap and
- operating instructions

Elcometer 280 Pulsed DC Holiday Detector Inspection Kit Gauge (Model S or T)

- 5m trailing signal return lead
- battery pack (2 supplied with Model T)
- battery charger with mains cables
- stainless steel rolling spring holder (supplied with Model T only),
- 250mm probe extension shaft,
- shoulder strap and
- operating instructions

packed in a light weight, rugged, wheeled transit case - ideal for transportation


Accessories

Part Number Description

T28022769	Light weight, rugged, wheeled transit case – ideal for gauge transportation, with additional space to house up to 20m of phosphor bronze or 6m of stainless steel rolling spring
T28022622	Trailing signal return lead, 5m

Grounding mats

Grounding mats are ideal for testing on un-grounded pipes. The conductive rubber mat is wrapped around the coated pipe and connected to both the grounding pin (supplied separately) and the signal return lead.

	Part Number	Description	Outside Diameter (OD)	
			DN	NPS
	T28022637-1	Grounding Mat	up to 229mm	up to 9"
	T28022637-2	Grounding Mat	up to 457mm	up to 18"
	T28022637-3	Grounding Mat	up to 762mm	up to 30"
	T28022637-4	Grounding Mat	up to 1067mm	up to 42"
	T28022748	Grounding pin; 60cm long x 0.2cm diameter		
	T28022749	10m earth lead, clips each end		
	T28022750	10m earth lead, clip / Elcometer 280 connector		

See separate leaflet for all the accessories for the Elcometer 280 including :

- Batteries, Chargers & Earth Signal Return Leads
- Telescopic Probes, Probe Extension Rods
- Accessory Adaptors, allowing other manufacturer's accessories to fit Elcometer models
- Wire Brush Probes, band brush, flat brush, internal and external pipe brush probes
- C Type Wire Brush Probes
- Conductive Rubber Probes
- Rolling Springs, available in phosphor bronze or stainless steel