

StrayProbe[®]-Ti



StrayProbe[®] is designed for the cathodic protection monitoring of all types of buried structures (pipelines, distribution networks, tanks).

It consists of a reference electrode made of a special **Mixed Metal Oxide activated Titanium** and a controlled shape steel coupon, both embedded in a mortar-type long lasting backfill and contained in a robust non-metallic case.

ADVANTAGES

- *StrayProbe[®]* measures the *IR-free-potential*, or *true potential*, of buried structures also in the presence of stray current interference and alternating currents (AC)
- It is a full substitute of the on-off technique
- In accordance with EN 50162 it facilitates the continuous potential measurement, in particular for remote monitoring systems
- It provides long-term durability



StrayProbe® measures the *IR-free-potential*

StrayProbe® -Ti



INSTALLATION

StrayProbe® is buried in a bentonite backfill, close to the pipeline; the working side is orientated toward the soil.

The *steel coupon* (brown/black cable) is connected to the pipeline through a $10\ \Omega$ shunt to measure the absorbed current.

The voltmeter connected to the *SMMO-Ti reference electrode* (blue cable) must have an impedance higher than $10\ \text{M}\Omega$ for instant measurements and higher than $10\ \text{G}\Omega$ for remote monitoring (an impedance adapter is available on request).

The potential of the steel coupon is in the range $+0.2$ to $-0.4\ \text{V}$ before electrical connection.

OPERATING

Adsorbed current usually ranges 0.1 to $5\ \text{mA}$ (current density is about 0.1 to $6\ \text{A}/\text{m}^2$ on equivalent bare steel surface area).

To refer the potential to CSE scale (copper/copper sulphate) $-0.1\ \text{V}$ has to be added (for example, $-0.75\ \text{V}$ measured by the *StrayProbe®-Ti* corresponds to $-0.85\ \text{V}$ CSE).

SIZE WEIGHT CABLES

Size: 130 mm in diameter and 48 mm thick.

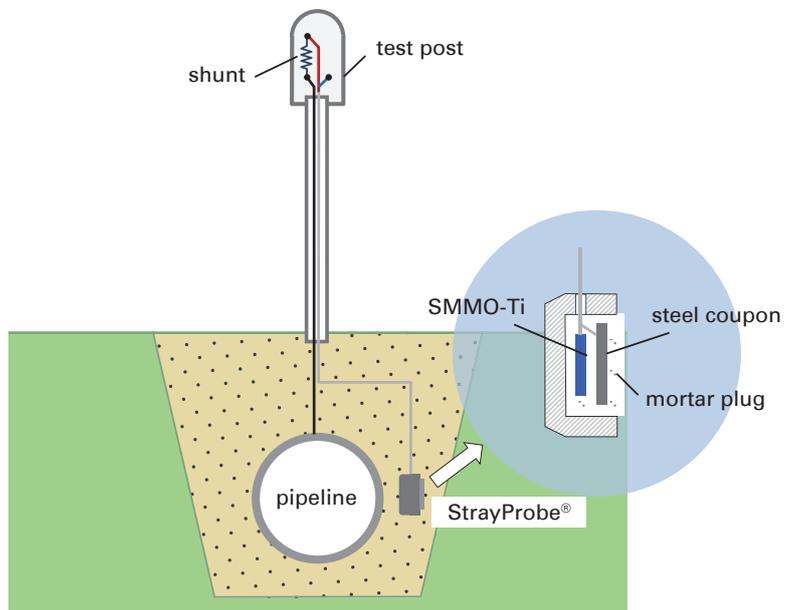
Probe weight: 1.2 kg (2.4 lb).

Bipolar Cable: $2 \times 2.5\ \text{mm}^2$, double insulation according to the normative; 6 m long or as per request.

Gross weight: 2 kg.

LIFE EXPECTANCY

No limitation.



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