

Product Datasheet: Corrosion Control Cathometer

PART NUMBER CATH001

The Cathometer is a portable corrosion control indicator for use on steel structures immersed in sea water. It can:

- Indicate the level of corrosion activity on steel structures such as underwater hulls, ballast tanks, docks, jetties and offshore platforms.
- Indicate the efficiency of any cathodic protection system fitted and give warning of the necessity of anode replacement in advance of ships docking dates or repair schedules. Identify shrouded or unprotected area in a cathodic protection scheme.
- Identify the source of problems associated with 'stray currents'.



INSTRUMENT CHARACTERISTICS

The Cathometer comprises an easy to read millivolt meter (calibrated 0-1.5Volt DC full scale, accurate to BS 89 and of 20000 ohms/Volt impedance), a high voltage tensile steel contact probe and a durable silver/silver chloride reference electrode housed in a plastic shroud. The Cathometer is simple to operate by untrained personnel, lightweight (approximately 2.75Kg), portable and compact. The reference electrode is attached to 25 metres of P.V.C covered cable conveniently located on a reel at the back of the indicator. The instrument is preset and should not require adjustment or maintenance during service. The Cathometer does not require dry cell batteries and is therefore more suitable for use in hazardous areas (refer to local requirements for suitability of use). Intrinsically Safe approved models are available to special order.

USING THE CATHOMETER

Detach the reference cell and steel contact probe from the Cathometer casing. Lower the reference electrode into the sea or ballast water. In most cases the reference electrode should be positioned within approximately 2 metres from the steelwork to be examined.

Force the contact probe into a clean (paint and rust free) area of steel. A voltage reading will immediately register. Record the voltage reading shown on the Cathometer and the position at which it was taken. A complete survey requires readings to be taken at various levels vertically down the structure, e.g., 5 metre intervals, and at as many locations in a horizontal direction as may be required.

Regular potential surveys will indicate a rate of deterioration of immersed steel due to corrosion and, conversely, will indicate the effectiveness of any cathodic protection system fitted.

READING INTERPRETATION OF STEEL POTENTIALS

(Salt Water)

0 - 0.65V:	Active Corrosion
0.65 - 0.78V:	Partial Cathodic Protection
0.78 - 1.00 V:	Complete Cathodic Protection
1.00 - 1.50V:	Over Protection

When a cathodic protection is fitted readings will rise as the reference cell approaches an anode, with maximum readings obtained when the reference cell is adjacent to an anode.



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