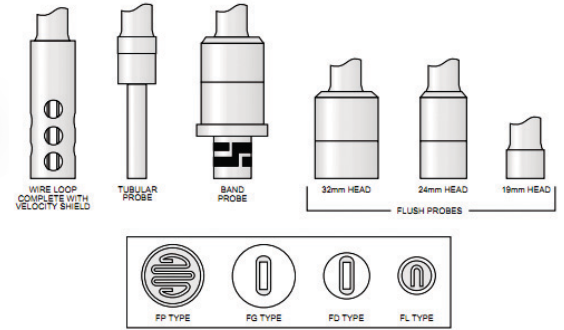
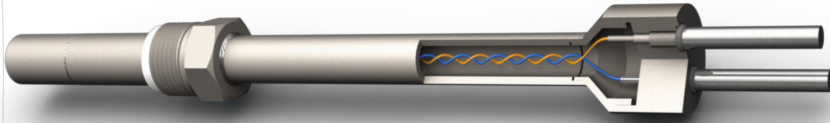
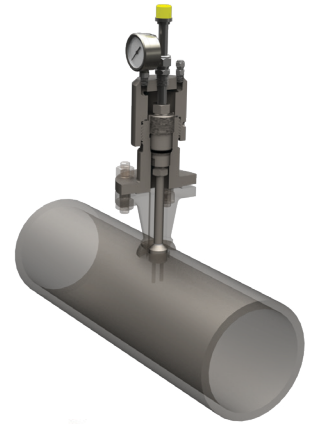


Teledyne Cormon

# Cormon Intrusive Measurement Probes

## Primary Features:

- Comprehensive range of Electrical (ER) and Linear Polarisation Resistance (LPR) measuring probes used for measuring corrosion in process applications
- Decades long track record in specifying and manufacturing probes across multiple industries and territories
- ER Probes available in a wide variety of configurations including: Wire loop, Tubular, Tube Loop, Flush mounted & Band
- LPR probes available in flush or projecting electrode form with either 2 or 3 electrodes



## ER PROBES

ER instruments and probes are used for measuring metal loss due to corrosion / erosion in process applications. The ER technique involves measuring the resistance of an exposed sample element compared to that of a protected reference element. The corrosion of the exposed sample element is measured as a change in its electrical resistance. A protected element of the same material is placed close to the sample and measured at the same time. The ratio of sample to reference resistances provides a measure of the relative corrosion of the sample element. Any two metal loss measurements separated in time may be used to calculate an annual rate of loss.

Probes are available in a range of thicknesses, configurations, mounting styles and materials to suit the particular application or process to be monitored.

## APPLICATIONS

- Refining & Processing
- Chemical Production
- Water Treatment & Distribution
- General Industrial Applications

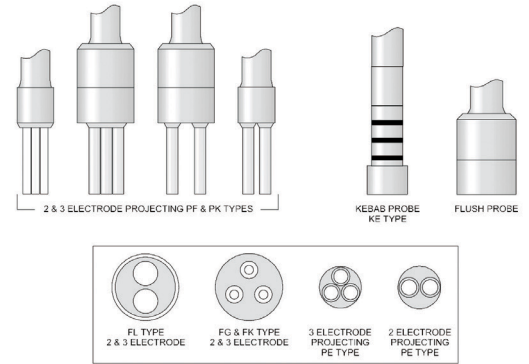


TELEDYNE CORMON

# Common Intrusive Measurement Probes

## Primary Features:

- Comprehensive range of Electrical (ER) and Linear Polarisation Resistance (LPR) measuring probes used for measuring corrosion in process applications
- Decades long track record in specifying and manufacturing probes across multiple industries and territories
- ER Probes available in a wide variety of configurations including: Wire loop, Tubular, Tube Loop, Flush mounted & Band
- LPR probes available in flush or projecting electrode form with either 2 or 3 electrodes



## LPR PROBES

LPR monitoring provides an instantaneous measure of corrosion and is often used as a method for optimising corrosion inhibitor treatment. The method is most commonly used when fluctuating corrosion rates may be expected over relatively short intervals. Measurements are made by applying a small voltage (10 to 30 mV) to a corroding metal electrode and measuring the resulting current flow. The ratio of voltage to current – the polarisation resistance – is inversely proportional to the corrosion rate.

LPR probes are available in either 2 or 3 electrode versions. The 3 electrode version minimises the effect of the process fluid, increasing effectiveness and accuracy.

Teledyne-Cormon manufactures a range of probes in either flush or projecting electrode form. Probes are normally set in either epoxy resin or glass depending on the service. Probes can be mounted in a number of styles according to application.

## LPR PROBES TYPICAL RESISTIVITY VALUE

MEDIUM	RESISTIVITY	CONDUCTIVITY
Oils/non polar organics	100 Meg ohm/cm	.01 microohm/cm
Pure distilled water	10 Meg ohm/cm	0.1 microohm/cm
Good distilled water	1 Meg ohm/cm	1.0 microohm/cm
Rain water	100k ohm/cm	10 microohm/cm
Good drinking water	10k ohm/cm	100 microohm/cm
Range if industrial cooling water	1k – 100 ohm/cm	1k – 10k microohm/cm
Sea water	10 ohm/cm	10k microohm/cm

## MOUNTING OPTIONS ER & LPR PROBES

SERIES	DESCRIPTION
AC	Body mounting suitable for 2" high pressure access fittings
RC	Retractable style 5/8" body for use with packing gland
FN & FB	Fixed length threaded bodies, NPT or BSP male threads
AN & AB	Adjustable length thread mounted bodies using swaged fittings NPT or BSP
LO	Laboratory style plain cylinder bodies
FL	Flange mounted probes



Teledyne Cormon

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