

Retrievable Electrical Resistance (ER) Probe Flush Mounting

GENERAL

Caproco offers a range of high quality, high integrity electrical resistance probes which utilize a flush element configuration to measure the rate of corrosion.

The sensing element is mounted flush in a supporting substrate to overcome any effects associated with edge corrosion. Resistance readings from the sensing element are relative to a noncorroding reference element sealed within the probe body.

APPLICATION

The flush element is designed to reproduce the precise corrosion behaviour at the wall of the pipe or vessel, as well as allowing pigging operations to be undertaken without the requirement of probe retrieval. Two sizes of elements are available to suit requirements regarding sensitivity and desired probe life.

SPECIFICATIONS

Caproco ER probes are manufactured from 316 stainless steel with an AISI 1018 mild steel element. Probe bodies and elements are available in alternative materials upon request. Standard probes are designed for mounting through a Caproco Hollow Plug assembly.

| Element Thickness | F10 0.010" (0.25 mm) F20 0.020" (0.50 mm) | |
|-------------------|--|--|
| Maximum Operating | 3,600 / 6,000 psi | |
| Pressure | (24.8 / 41.4 MPa) | |
| Maximum Operating | 500∘F | |
| Temperature | (260∘C) | |

PROBE SEALING Element and connector pins

hermetically sealed using high integrity glass ceramic seals.

ENCAPSULATION Two part loaded resin with

excellent thermal, electrical and mechanical properties.

CONNECTION

Interfaces with the Caproco ER Analyzer and most other commercial ER monitoring instrumentation, via a MIL standard 6 pin receptacle.









PROBE LENGTH IS MEASURED FROM SEALING FACE OF PROBE BODY THREADS TO ELEMENT END

| FLUSH MOUNTING RETRIEVABLE ER PROBES | | | |
|--------------------------------------|------|-------------------|-------------------|
| LENGTH | | | |
| (Inches) | (mm) | PART NUMBER - F10 | PART NUMBER - F20 |
| 1.125 | 29 | 92200 | 92300 |
| 1.250 | 32 | 92201 | 92301 |
| 1.375 | 35 | 92202 | 92302 |
| 1.500 | 38 | 92203 | 92303 |
| 1.625 | 41 | 92204 | 92304 |
| 1.750 | 44 | 92205 | 92305 |
| 1.875 | 48 | 92206 | 92306 |
| 2.000 | 51 | 92207 | 92307 |
| 2.125 | 54 | 92208 | 92308 |
| 2.250 | 57 | 92209 | 92309 |
| 2.375 | 60 | 92210 | 92310 |
| 2.500 | 64 | 92211 | 92311 |
| 2.625 | 67 | 92212 | 92312 |
| 2.750 | 70 | 92213 | 92313 |
| 2.875 | 73 | 92214 | 92314 |
| 3.000 | 76 | 92215 | 92315 |
| 3.125 | 79 | 92216 | 92316 |
| 3.250 | 83 | 92217 | 92317 |
| 3.375 | 86 | 92218 | 92318 |
| 3.500 | 89 | 92219 | 92319 |
| 3.625 | 92 | 92220 | 92320 |
| 3.750 | 95 | 92221 | 92321 |
| 3.875 | 98 | 92222 | 92322 |
| 4.000 | 102 | 92223 | 92323 |