

Retractable Galvanic Probe 2 Element

GENERAL

Caproco offers a range of high quality, high integrity galvanic probes which utilize a 2 projecting element configuration to measure the galvanic current.

Water injection is a popular secondary recovery method for increasing oilfield production. When used as a displacing fluid, water is often treated to remove corrosive contaminants such as dissolved oxygen. Oxygen is a reactive gas which, when available, vigorously takes part in the corrosion process. Leakage of oxygen into a normally de-aerated process stream can increase corrosion in a galvanic cell. If brass valves and steel piping are exposed to de-aerated water, little galvanic interaction occurs and galvanic corrosion currents are low. However, if oxygen leaks into the system, then the corrosion reactions and galvanic currents both increase with the resultant corrosion of the steel piping. The appropriate instrument, connected to a probe installed with steel and brass electrodes, can quickly detect oxygen contamination in the process stream.

APPLICATION

The two electrode galvanic probe is designed to measure the magnitude of the galvanic corrosion current generated by a galvanic couple. The natural difference in potential existing between the metals in a galvanic couple serves as a driving force (*voltage*) to pass current through the electrolyte surrounding the two metals.

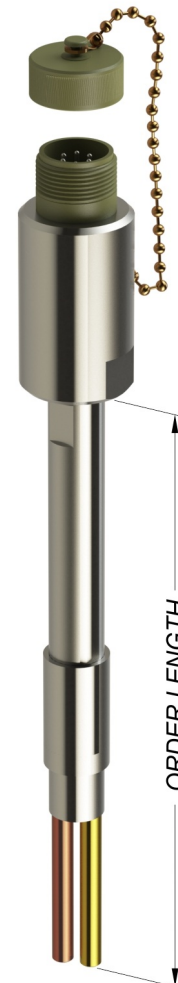
Galvanic probe elements are replaceable once they have corroded past their useful life.

SPECIFICATIONS

Caproco galvanic probes are manufactured from 316 stainless steel with AISI 1018 mild steel and brass elements. Probe bodies and elements are available in alternative materials upon request. Standard probes are designed for mounting through a Caproco low pressure stuffing box / access fitting assembly.

Element Length	3.00" x 0.25" (76mm x 6mm)
Maximum Operating Pressure	1,500 psi (10.3 MPa)
Maximum Operating Temperature	500°F (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 most commercial monitoring instrumentation, via a MIL standard 6 pin receptacle.



**PROBE LENGTH IS MEASURED FROM INSIDE
FACE OF CONNECTOR HEAD TO ELEMENT END**

PROJECTING 2 ELEMENT RETRACTABLE GALVANIC PROBES		
LENGTH		PART NUMBER
(INCHES)	(MM)	
14	356	68251
15	381	68252
16	406	68253
17	432	68254
18	457	68255
19	483	68256
20	508	68257
21	533	68258
22	559	68259
23	584	68260
24	610	68261
25	635	68262
26	660	68263
27	686	68264
28	711	68265
29	737	68266
30	762	68267
31	787	68268
32	823	68269
33	838	68270
34	864	68271
35	889	68272
36	914	68273
37	940	68274
38	965	68275
39	991	68276
40	1016	68277

STANDARD CARBON STEEL/BRASS REPLACEMENT ELEMENTS (SET OF 2) PART NUMBER 63074