

GENERAL

Caproco offers a range of high quality, high integrity hydrogen probes which utilize a measuring head and sensing element configuration to measure the level of hydrogen present in a system.

Hydrogen probes are composed of three components: measuring head, hollow plug assembly (retrievable) or probe body (fixed) and sensing element. The sensing element is comprised of a thin walled tube, designed to simulate a material delamination or inclusion.

APPLICATION

When the hydrogen sensing element inserted into the process stream begins corroding, hydrogen generated by the corrosion reaction will permeate through the wall of the tube. Measuring the pressure in the tube will indicate hydrogen buildup; the rate of pressure increase is proportional to the corrosion rate.

Hydrogen probes are available in a retrievable or fixed design, and measuring heads (bleed cross) are available in either electronic or mechanical form.

Caproco hydrogen probes are available with two insert designs. Projecting inserts expose a larger surface area to the system while the flush design is convenient for locations that regularly undergo pigging.

SPECIFICATIONS

Element Length	2.00 / 3.00" (51 / 76mm)
Maximum Operating Pressure	3,600 psi (24.8 MPa)
Maximum Operating Temperature	500°F (260°C)

Caproco hydrogen probes can be custom manufactured to suit any application. Each probe is individually calibrated and pressure tested, and supplied with calibration sheets. Inserts are manufactured from AISI 1018 mild steel, but alternative materials are available upon request.



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

PROJECTING PROBE INSERT SIZING CHART

SIZE (ELEMENT / OVERALL INSERT)		PART NUMBER	SIZE (ELEMENT / OVERALL INSERT)		PART NUMBER	SIZE (ELEMENT / OVERALL INSERT)		PART NUMBER
(INCHES)	(MM)		(INCHES)	(MM)		(INCHES)	(MM)	
2.00 / 5.00	51 / 127	13501	3.00 / 7.00	76 / 178	13509	3.00 / 12.00	76 / 305	13523
2.00 / 5.25	51 / 133	13502	3.00 / 7.25	76 / 184	13510	3.00 / 13.00	76 / 330	13524
2.00 / 5.50	51 / 140	13503	3.00 / 7.50	76 / 191	13511	3.00 / 14.00	76 / 356	13525
2.00 / 5.75	51 / 146	13504	3.00 / 7.75	76 / 197	13512	3.00 / 15.00	76 / 381	13526
2.00 / 6.00	51 / 152	13505	3.00 / 8.00	76 / 203	13513	3.00 / 16.00	76 / 406	13527
2.00 / 6.25	51 / 159	13506	3.00 / 8.25	76 / 210	13514	3.00 / 17.00	76 / 432	13528
2.00 / 6.50	51 / 165	13507	3.00 / 8.50	76 / 216	13515	3.00 / 18.00	76 / 457	13529
2.00 / 6.75	51 / 171	13508	3.00 / 8.75	76 / 222	13516	3.00 / 19.00	76 / 483	13530
			3.00 / 9.00	76 / 229	13517	3.00 / 20.00	76 / 508	13531
			3.00 / 9.25	76 / 235	13518	3.00 / 21.00	76 / 533	13532
			3.00 / 9.50	76 / 241	13519	3.00 / 22.00	76 / 559	13533
			3.00 / 9.75	76 / 248	13520	3.00 / 23.00	76 / 584	13534
			3.00 / 10.00	76 / 254	13521	3.00 / 24.00	76 / 610	13535
			3.00 / 11.00	76 / 279	13522	3.00 / 25.00	76 / 635	13536

FLUSH PROBE INSERT SIZING CHART

SIZE		PART NUMBER	SIZE		PART NUMBER
(INCHES)	(MM)		(INCHES)	(MM)	
2.750	70	12896	4.000	102	13564
2.875	73	13971	4.125	105	13976
3.000	76	12210	4.250	108	12897
3.125	79	13972	4.375	111	13977
3.250	83	13297	4.500	114	12863
3.375	86	13973	4.625	117	13978
3.500	89	12861	4.750	121	13299
3.625	92	13974	4.875	124	13979
3.750	95	13298	5.000	127	12211
3.875	98	13975			