

Chart Recorders

Pressure Temperature

Mercury Instruments chart recorders provide extremely accurate chart records of pressure and/or temperature. All critical components, including the pressure element, temperature system and chart drive, are manufactured by Mercury Instruments' own well-trained craftsmen, assuring you the finest pressure and temperature instruments available.

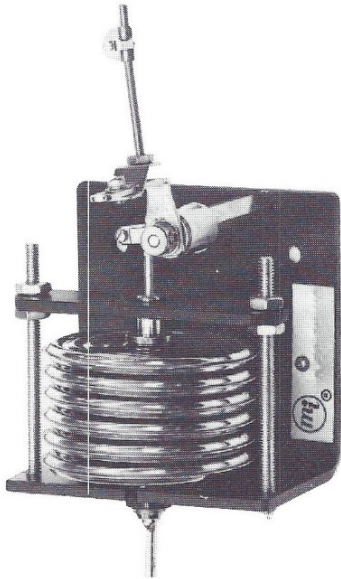


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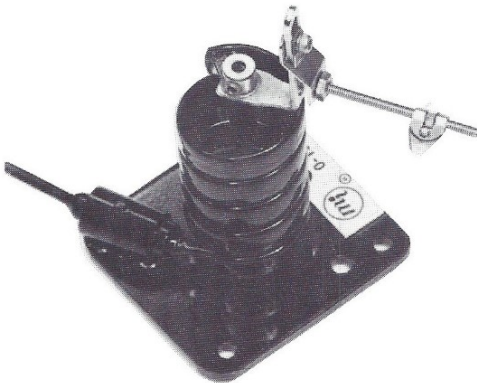
CONTROL EQUIPMENT SALES, INC.

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Pressure Elements



Diaphragm element for ranges 0-30 psi and below



Helical element for ranges above 0-30 psi

Each pressure element is manufactured by Mercury Instruments to precise specifications using the highest quality materials — Beryllium copper or 316 stainless steel. Each element deflects 22½° for the design range, is carefully made, heat-treated and cold-worked to remove all hysteresis. The accuracy of each pressure recorder is ± ½ chart graduation.

Over-Range Limits

Helical elements	
up to 500 psi	100%
above 500 psi	+ 500 psi
Diaphragm elements	100%

Typical Pressure Ranges

Pressure recorders are offered for ranges from 0 to 10 inches of water column to 5,000 pounds per square inch gauge. Vacuums to 30 inches of mercury and combination pressure and vacuum ranges are also available. Typical pressure ranges, depending on the availability of the chart, are:

0-5	0-50	0-250	0-1,200
0-10	0-60	0-300	0-1,500
0-15	0-75	0-375	0-2,000
0-20	0-100	0-500	0-2,500
0-25	0-120	0-600	0-3,000
0-30	0-150	0-750	0-4,000
0-35	0-200	0-1,000	0-5,000

Other ranges can be supplied if desired. Dual pressure ranges as well as dual pressure and temperature ranges are available (check with factory). Recorders can be calibrated to metric units of pressure and temperature.

Pressure Recorders

Mounting	Model Number		
	Wall	801	701
Flush	802	702	1202
Portable	803	703	1203
Pipestand	804	704	1204
Chart Diameter	8"	12"	12" Mi
Arc Radius	6¾"	9⅞"	6¾"
Number of Pens	1, 2 or 3	1	1, 2 or 3

Pressure Recorders with Valving and Test Connection

Mounting	Model Number			
	Wall	811-S	711-S	711-S
Pedestal	812-S	712-S	712-S	1212-S
Chart Diameter	8"	8"	12"	12"
Arc Radius	6¾"	6¾"	9⅞"	6¾"
Number of Pens	1 or 2	1 or 2	1	1 or 2

Valve and test fitting is provided with each pressure element. Solid door, tamper-proof case and double-latch bar with padlock-type handle are also provided (811-S and 812-S have hasp closure for padlock).

800 series recorders use 8-inch diameter chart, 6¾" arc radius.

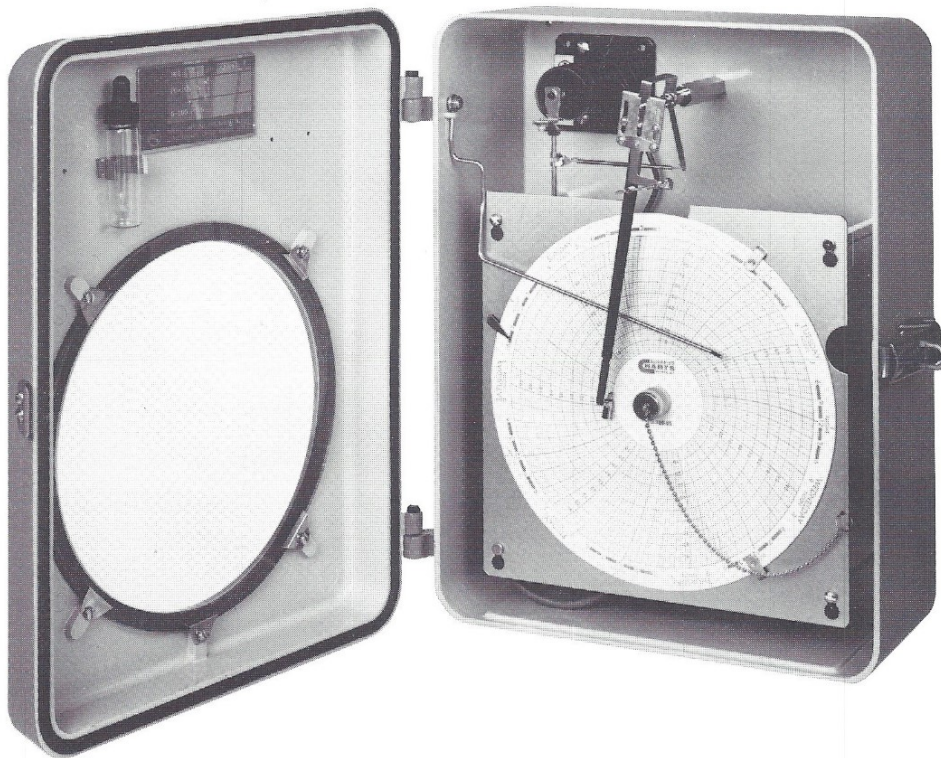
700 series recorders use 12-inch diameter chart, 9⅞" arc radius single-pen, or, in some models, the 8-inch chart, 6¾" arc radius two-pen.

1200 series recorders use 12-inch Mi chart, 6¾" arc radius.

Note: Recorders can also be calibrated to 10-inch diameter chart and other arc radius (check with factory).

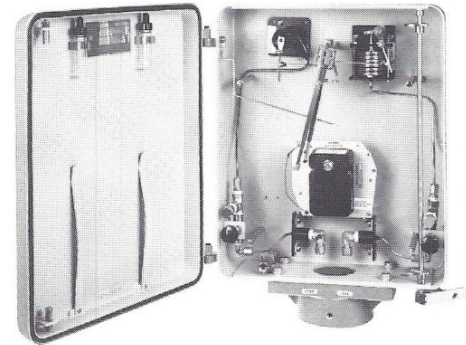
Pressure Recorders

Mercury Instruments Has the Pressure Recorder that Fits Your Needs

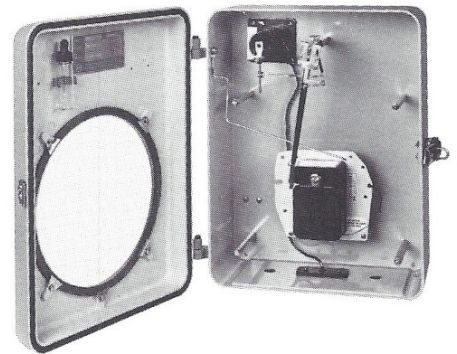


8-inch chart recorders and 12-inch chart recorders are offered for pressure ranges from 0 to 10 inches of water to 0 to 5,000 pounds per square inch. Vacuums to 30 inches of mercury are also available.

Up to 3 pens can be installed in either the 8-inch or 12-inch recorder. Calibration to metric units of pressure can be made. Pressure recorders come in wall, flush, pedestal or pipestand mount and also portable configurations.



Model 1212-S pedestal-mounted pressure recorder with valving and test connections



To order, specify:

- Chart size and pressure range(s)
- Element material
- Number of pens
- Mounting arrangement
- Chart drive rotation(s)
- Options

Sensing Bulbs and Thermowells



Full-length stainless steel armor protects the capillary from damage for the entire exposed length. A 1/2" NPT union on a 10 1/2" adjustable length stem permits insertion of the 5/8" diameter bulb to full depth in the thermowell. Standard thermowell is threaded 3/4" or 1" NPT, brass or 304 or 316 stainless steel, 4", 6", 8" or 11" length. Specify size and material.

Options:

- Bulbs: plain or air.
- Thermowells: threaded, flanged, weld-type or flanged union.

Over-Range Limits of Mercury-Filled System

For ranges of 600°F or less	25%
For ranges above 600°F	10%

Typical Temperature Ranges

Temperature recorders are offered for range spans of 100°F (55°C) up to 1,000°F (550°C), and a lower limit of -30°F (-34°C). Typical temperature ranges, depending on the availability of the chart are:

-30° to 120°	0° to 100°	0° to 150°
-20° to 130°	0° to 120°	0° to 250°

Other ranges can be supplied. Dual temperature ranges as well as dual temperature and pressure ranges are available (check with factory).

Recorders can be calibrated to metric units of temperature and pressure.

Temperature Recorders

Mounting	Model Number		
	Wall	825	725
Flush	826	726	1226
Portable	827	727	1227
Pipestand	828	728	1228
Portable (Self-Contained)	829	729	1229
Rigid Stem	830	730	1230
Chart Diameter	8"	12"	12" Mi
Arc Radius	6 3/8"	9 7/16"	6 3/8"
Number of Pens	1, 2 or 3	1	1, 2 or 3

800 series recorders use 8-inch diameter chart, 6 3/8" arc radius.

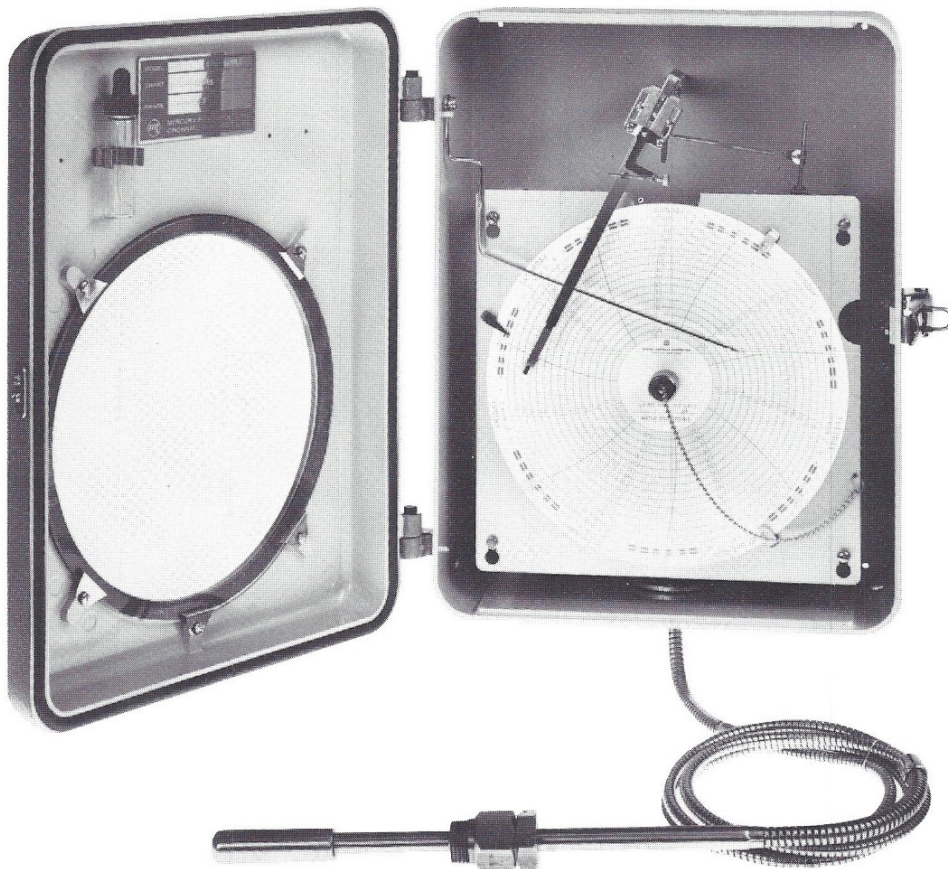
700 series recorders use 12-inch diameter chart, 9 7/16" arc radius single-pen, or, in some models, the 8-inch chart, 6 3/8" arc radius two-pen.

1200 series recorders use 12-inch Mi chart, 6 3/8" arc radius.

Note: Recorders can also be calibrated to 10-inch diameter chart and other arc radius (check with factory).

Temperature Recorders

Depend on Mercury for Temperature Recording

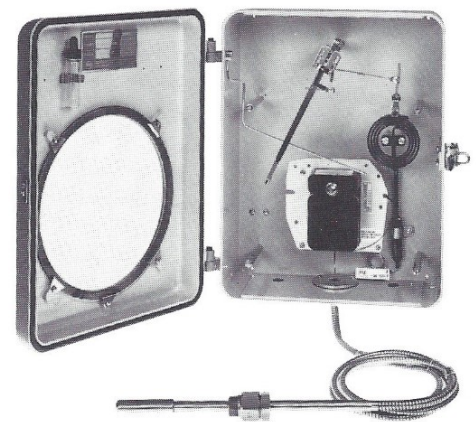


8-inch chart recorders and 12-inch chart recorders are available for temperature range spans of 100°F (55°C) up to 1,000°F (550°C), and lower limit of -30°F (-34°C).

One- or two-pen recorders are available in both the 8-inch and 12-inch size, calibrated to either English or metric units. Temperature recorders come in wall, flush or pipestand mount and also in portable configuration.

The mercury-filled temperature system manufactured by Mercury Instruments offers the ultimate for accuracy and durability in a temperature recorder. This is credited to an all-welded steel construction with uniform scale deflection and rapid response to

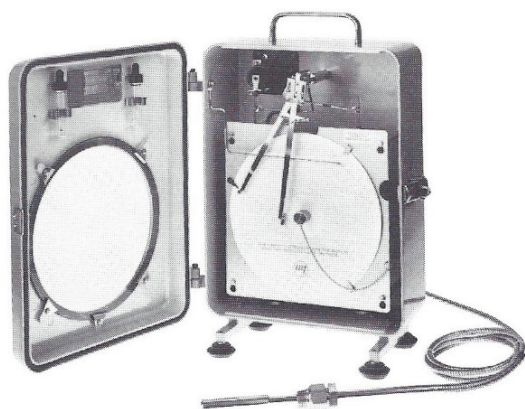
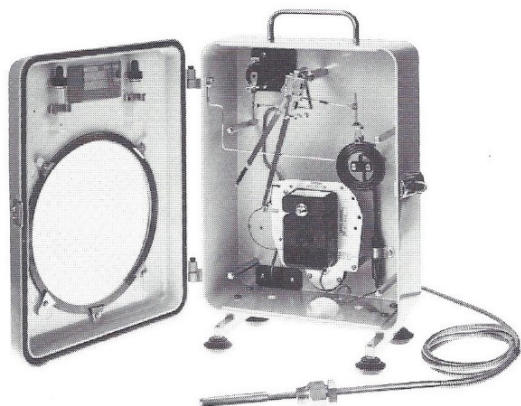
temperature changes. The standard case compensated system is used for capillary lengths of up to 25 feet. A fully compensated system is a necessary option for greater capillary length. The accuracy of each temperature recorder is ± 1 chart graduation.



To order, specify:

- Chart size and temperature range(s)
- Length of capillary (standard is 5 feet)
- Number of pens
- Mounting arrangement
- Chart drive rotation(s)
- Options

Pressure and Temperature Recorders



Combined Pressure/Temperature Recorders

Mounting	Model Number	
	Wall	810
Portable	833	1233
Pipestand	834	1234
Chart Diameter	8"	12" Mi
Arc Radius	6 ³ / ₈ "	6 ³ / ₈ "
Number of Pens	2 or 3	2 or 3

800 series recorders use 8-inch diameter chart, 6³/₈" arc radius.
 700 series recorders use 12-inch diameter chart, 9⁷/₁₆" arc radius single-pen,
 or, in some models, the 8-inch chart, 6³/₈" arc radius two-pen.

1200 series recorders use 12-inch Mi chart, 6³/₈" arc radius.

To order, specify:

- Chart size
- Pressure range
- Pressure element material
- Temperature range
- Length of capillary (standard is 5 feet)
- Number of pens
- Mounting arrangement
- Chart drive rotation(s)
- Options

Note: Recorders can also be calibrated to 10-inch diameter chart and other arc radius (check with factory).

Mounting Arrangement



Wall Mount

Case is provided with four (4) wall hangers. The $\frac{1}{4}$ " NPT pressure connection(s) and/or the thermal system capillary is out the bottom unless otherwise specified.



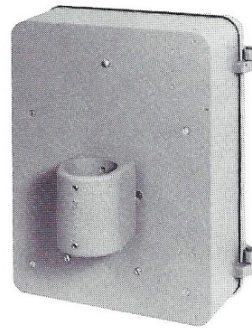
Portable

A set of feet and a carrying handle with $\frac{1}{4}$ " NPT pressure connection(s) and/or thermal system capillary is out the back. A portable self-contained recorder for ambient temperature measurement has a bulb rigidly mounted with guard to side of case.



Pedestal Mount

Pressure recorder is provided with a bracket to fit either a $2\frac{1}{2}$ " slip-on or a 3" slip-on or threaded pedestal pipe. Pressure connection(s) is either $\frac{1}{4}$ " NPT or $\frac{1}{8}$ ", $\frac{1}{4}$ " or $\frac{3}{8}$ " tubing compression fittings located inside case.



Pipestand Mount

A bracket on the back of the case permits mounting to a 2" standard pipe. Mounting bracket for 3" and 4" pipe is also available. The $\frac{1}{4}$ " NPT pressure connection(s) and/or the thermal system capillary is out the bottom unless otherwise specified.



Rigid Stem (Adjustable)

Temperature recorder can be mounted directly on the thermowell in the pipe. Rigid stem is adjustable to accommodate thermowells from 4-inch to 11-inch lengths (thermowells are ordered separately).



Flush Mount

A bezel ring on case with four (4) mounting holes permits bolting the recorder in a panel board opening. The $\frac{1}{4}$ " NPT pressure connection(s) and/or the thermal system capillary is out the back.



Water-Tight Wall Mount

Pressure recorder is housed in a water-tight case, impregnated and suitable for submergence up to 10 feet. The $\frac{1}{4}$ " NPT pressure connection(s) is out the bottom; a 1" NPT vent connection is at the top unless otherwise specified.