Microbarographs

Bulletin 77-5





No. 5-800A

No. 5-800AM-1

The Belfort, vertical drum type, microbarograph furnishes an accurate record of barometric pressure inked on a rectangular chart. Its magnified scale moves the pen 2.5 inches on the chart for every inch of mercury, through a range of 85 millibars.

Changes in the atmospheric pressure cause the opposed bellows assembly to either contract or expand. This movement is magnified through a linkage to trace the record. An important feature is the over-expansion protection for the bellows assembly. Stops are provided for the pen arm and the bellows. A unique link assembly is capable of absorbing any accidental motions imparted to the pen arm in any direction. All parts are corrosion resistant.

In the event of increasing high or decreasing low pressures, which might run the pen off the chart, the pen arm may be repositioned one inch of Hg. from the upper edge and one and one half inches of Hg. from the lower chart edge, by turning the adjustment knob on top of the element housing. A new friction-free damping device requires no dash pot, which ends the danger of spillage. The degree of damping may be adjusted. A balanced mechanism and flex strips have replaced a number of links and pivots used in the older type barographs. This new design no longer requires extreme care in selecting a vibrationfree location for the instrument.

This microbarograph is fully temperature compensated by an adjustable bimetal assembly and is adjusted for optimum performance between 32°F to 100°F.

The instrument is so calibrated that charts can be substituted (eg. inch for millibar) without recalibration.

The microbarograph is available with either the 8 day hand wound chart drive PL-14252, or the battery powered chart drive PL-15605 (see bulletin #76-76).

5-800AM-1 Marine Microbarograph is equipped with anti-backlash spring wound chart drive and an airtight case. With its outlet tube connected to the exterior this eliminates the possibility of false readings on shipboard or other confined areas due to atmospheric pressure within the room.

BELFORT INSTRUMENT COMPANY 1600 SOUTH CLINTON STREET BALTIMORE, MARYLAND 21224



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SPECIFICATIONS

BELFORT MICROBAROGRAPHS MANUFACTURED TO U.S.W.B. SPECIFICATIONS 450.7221 (Revised July 1, 1959) & 450.7223

ACCURACY: ±0.1 millibars over 2½" range TEMPERATURE COEFFICIENT - 0.0179 mb per 1°C CASE DIMENSIONS:

> STANDARD Length — 12-11/16 inches Width — 7 inches Height — 9-1/2 inches

MARINE Length — 15-1/8 inches Width — 7 inches Height — 9-1/2 inches

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WEIGHT: Net 12 lbs. Gross 25 lbs.

Net 18 lbs. Gross 28 lbs.

White

FINISH: Hammertone Gray Paint

CHARTS

UNIT OF MEASURE	Record Period		Higher Elevations
			(Pressure scales omitted)
MILLIBARS 965 TO 1050	Daily (29 hr.)		5-1071-MXD
	Weekly (195 hr.)	5-1071- M	5-1071- MX
	4-Day (108 hr.)	5-8600	
INCHES 28.5 TO 31.0	Daily (29 hr.)	5-1071-SD	5-1071-XD
	Weekly (195 hr.)	5-1071	5-1071-X
	31-Day (861 hr.)	15621	15621
MILLIMETERS 724 TO 787	Weekly (195 hr.)	5-1071- MM	5-1071-MMX

ORDERING INFORMATION

MODELS AVAILABLE:

NUT OF MEACURE

No. 5-800A — Microbarograph, with standard case & standard clock. No. 5-800AM-1 — Microbarograph, with airtight case & balanced anti-

backlash clock.

STATION ELEVATION MEAN SEA LEVEL

-1000 to 1500 ft.
0.to 3200 ft.
2800 to 6200 ft.
5800 to 9200 ft.
8800 to 12,200 ft.

Specify - Microbarograph Model No., Chart No. and elevation where Barograph is to be installed.



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