Illinois Testing Laboratories, Inc.

422 N. LaSalle Street, **Chicago, Illinois**

TESTING ENGINEERS AND MANUFACTURERS

"Alnor" Indicating Pyrometers—Portable and Wall Type. "Alnor" Surface Temperatures, "Alnor" Distant Reading Resistance Thermometers, "Alnor" Pyrometer Controllers, "Alnor" Velometers—Air Velocity Meters.

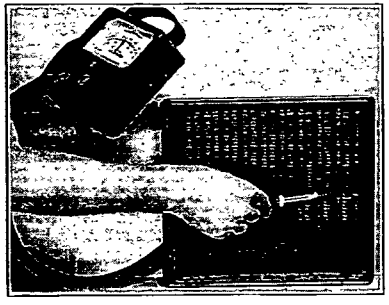


Fig. 1—Showing Tube Type Velometer with No. 2220 Angle Jet taking air velocity of grille.

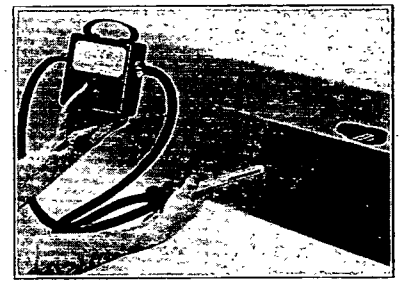


Fig. 2—Showing Tube Type Velometer with No. 2425 Duct Jet taking readings directly in the duct. Duct Jet furnished standard 18 in. or 36 in. long. Other lengths available on special order.

"ALNOR" VELOMETER

The Instantaneous Direct Reading Air Velocity Meter

The Velometer is a direct reading instrument which gives accurate and instantaneous readings of the speed of air measured in feet per minute.

The indicator or meter is housed in an attractive black Bakelite case 5¼ in. x 5¾ in. x 2⅜ in. and weighs approximately 2 lb.

The movement consists of a swinging vane to which the indicating pointer is attached, control hair springs and a magnetic damping system. The air which enters the port or jet of the instrument exerts an impact or pressure on the vane which causes it with the pointer to deflect across the scale and is read directly in feet per minute velocity.

No mathematical calculations or stop watches are necessary to determine the velocity reading as the pointer indications are a direct measurement of air speed.

While the Velometer is offered in three types, the Tube Type is by far the most popular. This type uses attachments called jets for most of the velocity readings. The style of jet to be used depends on the requirements or purpose for which it is used.

Ranges—Standard Range 0 to 300 fpm low scale, 0-3000 fpm high scale 0 to 2 in. static or total pressure. Other ranges available up to 18,000 fpm velocity and 20 in. pressure.

No. 2215 Averaging Jet—This jet is offered for obtaining velocities of ordinary duct openings or grilles. With this jet, average velocity readings over a 4 in. circle can be quickly obtained.

No. 2220 and No. 2240 Jets—These jets, angle and straight, have small orifices to give spot velocities over a ½ in. diameter. The Velometer with these jets provides accurate spot velocity readings of irregular shaped or slotted openings or other small velocity streams, locates leaks in duct systems and other similar service that would be difficult by other means.

No. 2425 Duct Jets—These jets are offered for direct velocity readings in ducts. The Duct Jet is, in effect, a double jet using two tubes and two meter fittings. With this jet, static pressure is balanced out or subtracted from total pressure and the net result or velocity pressure is read directly on the scale of the Velometer in feet per minute. Thus no calculations are necessary. Inch marks are provided on the jet for the convenience of the user.

No. 2460 Static Pressure Jet—This jet provides direct readings of static pressures of ducts, plenum chambers or pipes in inches of water.

No. 2485 Total Pressure Jet—This jet gives direct readings of total pressure, in inches of water. Inch marks are provided on this jet to enable the user to place the jet at the desired distance in the duct.

Write for Complete Folder

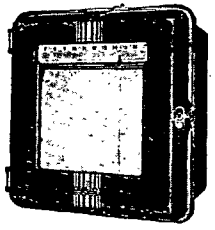
Leeds & Northrup Company

General Office and Works: 4941 Stenton Avenue, **Philadelphia, Pa.**

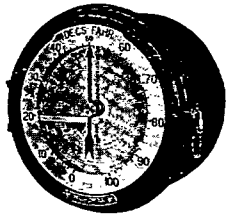
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RUGGED, NULL-TYPE INSTRUMENTS THAT ARE RELIABLE



Model S Micromax Recorder
Records from 1 to 16 points on a single strip-chart. Extremely open record. Can operate signals. (About 1/15th size)



Model R Micromax Recorder
Records 1 or 2 points on a round-chart. Has extremely readable dial. Can operate signals. (About 1/16th size)



Switchboard Indicator
Hand-operated. Can be connected through selector switches to any number of points. (About 1/10th size)

Electrical Thermometers for Air Conditioning

No method for measuring temperatures fits the specific needs of air conditioning as does the three-lead null-type resistance thermometer method. It is independent of distance and disregards all temperatures except those right at detector locations. The detectors (resistance thermometer bulbs called Thermohms), can be placed anywhere—in rooms, air ducts or water lines. They are connected by simple electrical wiring to instruments at a central location. Instruments may be: Micromax Recorders, Model S for up to sixteen Thermohms; Micromax Model R, for related pairs such as wet and dry bulb; indicators with switches for any number of Thermohms; or indicating and recording combinations.

This equipment is fundamentally reliable. Instruments and Thermohms are highly responsive, yet rugged in construction. A complete system is easy and economical to install, regardless of distances. It is easy to operate and demands minimum maintenance. Thermohms and instruments are interchangeable, and can be replaced without disturbing wiring or returning anything to the factory.

L&N Resistance Thermometers make it possible to operate efficiently; to maintain comfort or correct process atmosphere constantly . . . so that maximum return is realized on the conditioning investment.

J-N-225(2)

Electrical Instruments for the Heating Plant

The facts needed to operate a modern heating plant so as to save fuel, to protect equipment, and to operate efficiently at varying loads are provided reliably by rugged L&N instruments. Readings can be indicated or recorded or both. Recorders can be equipped to operate signals or alarms that warn the operator of extreme conditions. In some cases the instruments control automatically.

Micromax Model S provides a permanent record of conditions at from 1 to 16 points on one wide-scale chart. Micromax Model R concentrates on conditions at one point, provides a permanent record, and has a giant indicating dial that can be read at a glance. The switchboard indicator provides intermittent checks on conditions at one or several points.

In the heating plant, L&N measuring, signalling or controlling equipment is used for:

Metermax Combustion Control.
Furnace Pressure Control.
Smoke Density Analysis.
Flue Gas Analysis (Percent CO_2).
Flue Gas Temperatures.
Steam and Water Temperatures.
Boiler-Furnace Temperatures.
Electrolytic Conductivity of Water.