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H4400 HOT WATER METERS 2"-3"-4"

INSTALLATION/START-UP INSTRUCTIONS

INTRODUCTION

AMCO's H4400 Hot Water Meters are ideally suited for boiler condensate return lines, in-plant energy audits to monitor hot water consumption by production departments, hot water lines which occasionally might handle cold water, etc.

The H4400 Hot Water Meters are vertical impeller-type water meters, for installation in horizontal pipe only with the register facing upward. The magnetic coupling transfers the impeller movement to an o-ring sealed register.

METER SELECTION

The H4400 has a maximum working temperature of 350oF with working pressure at 195 PSI and at 250oF a working pressure of 230 PSI. These units' flanges are drilled according to ISO 7005-2 and is rated up to 16 Bar, 232 PSI. This means that the flanges and the whole meter are rated and operational at 232 PSI, just the drilling is according to ANSI 150/ASA 150.

The correct selection of the type and size of a meter is important to insure accurate registration and reliability. Selection should be based upon the actual working conditions such as pressure, permanent load, peak load, minimum accurate registration, temperature, mounting position, etc., rather than pipe size.

Meters, which are undersized in relation to load cause, noise, undesirable loss of pressure, and may be subject to premature wear. Alternatively, meters, which are oversized, may be inaccurate or fail to register low flow rate. (See H4400 Specifications sheet.)

Installation

The meter must be installed in a clean pipeline, free from any foreign materials.

Install the meter with the direction of flow as indicated by the arrow cast in the meter case. The meter must be installed in horizontal lines. The meter location should allow 10 straight pipe diameters upstream and 5 straight pipe diameters downstream. Gaskets and adjustment pipe must match the meter size.

The lines must be purged very slowly, to expel air, so as to insure the rotor in the meter is not damaged due to excessive speed.

INSTALLATION OF PULSERS

REED SWITCH PULSER

This pulser can be purchased as a part of the meter or added later. Should you need to install a reed switch pulser in the field, remove the bolt in the register next to the slot where the pulser plugs into the register, check the arrow on the pulser and select the appropriate output, up 1 pp 10 gallon or down 1 pp 100 gallon. Push the Reed pulser into the slot and secure the bolt and connect the wires. The Reed Switch pulser can handle maximum voltage of 48VDC, switching current 0.2 A, reed switch rated 4 watts, 50 ohm resistance in series, two wire for in-series wiring and power from an external source.

INDUCTIVE (Namur) PULSER

This pulser can be purchased as a part of the meter or added later. It is installed in the same way as the reed pulser. Nominal voltage 8VDC, current without pulse (open) 1.0mA and current with pulse (closed) 3.0mA, two wire and power from an external source. This pulser is for interface with the R420, wiring diagram available, or other appropriate electronics compatible to the above specifications. Contact closure rate are: 3.785 pp gallon.