

M190 HOT WATER METERS 1/2" - 2"

INSTALLATION/START-UP INSTRUCTIONS

INTRODUCTION

AMCO M190 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 M190 Hot Water Meters are multi-jet type water meters, for installation in horizontal pipes or inclined lines up to 45° with register facing upward. A magnetic drive between the measuring element and the register reduces the number of working parts in contact with the water.

METER SELECTION

The meter has a maximum working temperature of 266°F.

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 only on pipe size. Meters that are undersized in relation to load cause noise, undesirable loss of pressure, and may be subject to premature wear. Alternatively, meters that are oversized may be inaccurate or fail to register a low flow rate.

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 pipes or inclined lines up to 45° with register facing upward. The meter location should allow 10 straight pipe diameters upstream and 5 straight pipe diameters downstream. Gaskets and adjacent pipe must match the meter size.

WIRING OF PULSER

The pulser is integral to the meter. The transmitting element in pulser is a dry contact reed switch, SPST, n/o with a 3-watt non-inductive rating. Maximum voltage is 42 V AC/DC. Reed switch closure rate is 1 contact per gallon, with a 60~40 open closed ratio. To be wired in series.

REGISTER ROTATION

This meter does allow for register/pulser register rotation by turning the register/pulser without loosening of the housing.

FLOW TESTING

The M190 is tested prior to shipment.

This meter has a design accuracy of plus or minus 3 percent.

If the meter reads excessively high, it is probably due to the presence of air in the fluid stream. The meter would register air as water.

Slow meter readings are usually the result of a mechanical defect or the presence of foreign matter within the meter that is causing frictional loading.

PRESSURE/TEMPERATURE RATINGS

TEMP F	-20-150	200	225	250	266
MIN PSIG	-	6	25	45	70

"MIN PSIG" is the minimum line pressure required to prevent flashing within the meter body.