

H4400

Hot water meter

Sizes 2", 3" and 4"



| Size | | | 2" | 3" | 4" |
|-----------------------------------|------------------|--------|---------|-----|------|
| Qmin | Min. flow (gpm) | ±5% | 2.6 | 7 | 10.5 |
| Qt | Low flow (gpm) | ±2% | 9.9 | 26 | 39.6 |
| Qn | Cont. flow (gpm) | ±2% | 66 | 176 | 254 |
| Qmax | Peak flow (gpm) | ±2% | 110 | 308 | 440 |
| Operating pressure by temperature | | 250 °F | 230 psi | | |
| | | 350 °F | 195 psi | | |

| Register reading smallest quantity | | 2" | 3" | 4" |
|------------------------------------|--|-----|-----|-----|
| US gallons | | 0.1 | 0.1 | 0.1 |

| Capacity of register | | 2" | 3" | 4" |
|-----------------------|--|-----|-----|-----|
| US gallons (millions) | | 100 | 100 | 100 |

| Pulse output (choose one) Reed switch pulse | | 2" | 3" | 4" |
|--|--|-----------------------|----|----|
| Arrows up configuration | | 1 contact = 10 USG | | |
| Arrows down configuration | | 1 contact = 100 USG | | |
| Inductive (NAMUR) pulse | | 1 pulse = 0.2642 USG* | | |

*3.785 pulses = 1 USG

Pulse options

The H4400 hot water meters can be fitted with one of two pulse assemblies. The reed switch pulser is a plug-in assembly that fits without breaking the seal of the meter. Max. voltage is 48 V DC, switching current 0.2 A, reed switch rated at 4W, 50 ohm resistance in series, two wire cable wired in series with external power.

The inductive (NAMUR) pulser is a plug-in assembly that fits between the meter body and register. The transmitting element is a proximity sensor. Nominal voltage 8VDC, open current 1.0 mA, closed current 3.0 mA. Two wire cable, polarity sensitive; external power source required. The pulser is for interface with Elster's RIDA4-20AK panel mount converter, wire diagrams available, or other appropriate electronics compatible with the above specifications - check with electronics' manufacturer.

Low flow performance at its highest for hot water

This family of Elster AMCO Water meters offers a wide measuring range with improved low flow performance.

Operation

The H4400 is a Woltmann vertical impeller (inferential) meter. The impeller, shaft and magnet are the only moving parts in the measuring element. The magnetic coupling transfers the impeller movement to the register.

Installation

The meter must be installed in a clean pipeline, free from any foreign materials. The meter shall be installed with the direction of flow as indicated by the arrow cast in the meter case. The meter may be installed in a horizontal line with the register facing upward. The meter requires 10 pipe diameters ahead of the meter and 5 pipe diameters after the meter, of straight pipe of the same size as the meter, to insure proper flow through the meter.

Application

The meter is for use with hot water to 350°F (180°C) with working pressure up to 195 psi (13.4 bar) or 250°F (120°C) with working pressure to 230 psi (16 bar). Both the pressure loss and accuracy tests are made before shipment. No adjustments need to be made before installation. The meter should be installed in a protected environment. It's not submersible.

Construction

The meter consists of a main case, a measuring chamber, an impeller, a removable top plate and o-ring with a magnetically driven register or register with reed switch or opto-electronic pulser.

Connection

ASA class 150 raised face flange

Materials

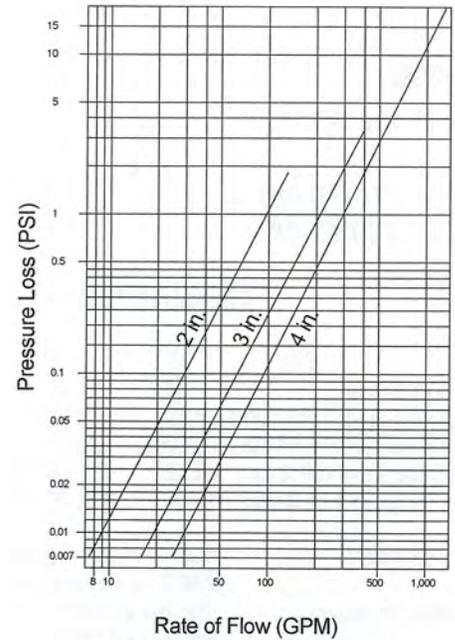
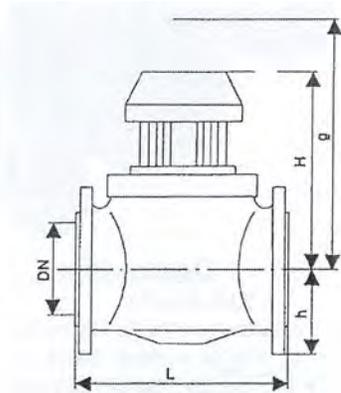
| | |
|-----------------|---------------------------------------|
| Meter body | Cast iron (Nodular) |
| Wetted material | Polyetheretherketone (PEEK) |
| O-ring seal | Tetrafluoroethylene-propylene (Aflas) |
| Magnet | Ferrite |
| Register | Polyphenylsulfide (PPS) |

Dimensions and net weights

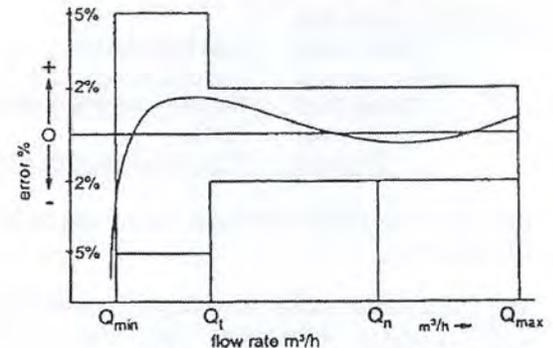
| Meter size (inches) | 2" | 3" | 4" |
|---------------------|------|------|------|
| L | 10.6 | 11.8 | 14.2 |
| g | 10.8 | 12 | 13.6 |
| H | 7.7 | 8 | 9.3 |
| h | 3.2 | 3.9 | 4.3 |
| W | 6.7 | 7.9 | 10.2 |
| Weight (lbs) | 30.9 | 44 | 72.8 |

Note: The width is not shown on the drawing.

Flanges. The meter body with flanges drilled according to ISO 7005-2 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.



H4400 Meters - Pressure Loss Curves (Typical)



H4400 Meters - Accuracy Curves

Temperature/pressure rating

| Temperature | -20—150 | 220 | 225 | 250 | 275 | 300 | 325 | 350 |
|-------------|---------|-----|-----|-----|-----|-----|-----|-----|
| Min PSIG* | ---- | 6 | 25 | 45 | 72 | 112 | 154 | 194 |

*This is the minimum line pressure required to prevent steam flashing within the meter body. Flashing can damage the meter permanently.



elster

www.elsteramcowater.com

United States
Elster AMCO Water, LLC
10 SW 49th Avenue, Bldg. 100
Ocala, FL 34474
T +1 352 369 6500
F +1 352 368 1950
watermeters@elster.com

Canada
Elster Canadian Meter Company Inc.
1100 Walker's Line, Suite 101
Burlington, Ontario L7N 2G3
T +1 866 703 7581
F +1 905 634 6705
watermeters@elster.com

Caribbean
Elster AMCO Water, Inc.
P.O. Box 225, Carretera 112 KM 2.3
Isabella, PR 00662
T +1 787 872 2006
F +1 787 872 5427
prwatermeters@elster.com

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