

Proline t-mass T 150 thermal mass flowmeter

The flowmeter for reliable and easy
monitoring of liquids



Benefits:

- Dedicated to the monitoring of conductive and non-conductive liquids
- High process safety – high repeatability and linearity due to integrated temperature compensation
- Cost-effective measurement – easy installation, negligible pressure loss and maintenance-free
- Reliable flow trending – multivariable measurement
- Fast and efficient commissioning – guided operating menus
- High plant availability – self-diagnostics and error monitoring
- Automatic recovery of data for servicing

Specs at a glance

- **Max. measurement error** Flow: $\pm 5\%$ o.f.s.
- **Measuring range** 226 to 14 100 000 l/h (60 to 3 730 000 gal/h) (under reference conditions)
- **Medium temperature range** -20 to $+100\text{ }^{\circ}\text{C}$ (-4 to $+212\text{ }^{\circ}\text{F}$)
- **Max. process pressure** PN 40
- **Wetted materials** Transducer: 1.4404 (316/316L); Alloy C22, 2.4602 (UNS N06022) Insertion tube: 1.4404 (316/316L); Alloy C22, 2.4602 (UNS N06022) Connection: - Compression fitting: 1.4404 (316L); Alloy C22, 2.4602 (UNS N06022) - Threadolet: 1.4404 (316L); Alloy C22, 2.4602 (UNS N06022) - Clamping ferrule: PEEK 450G; 1.4404 (316L); Alloy C22, 2.4602 (UNS N06022) - Tri-Clamp; DN40 DIN 11851, DN50 DIN 11851; DN40 DIN 11864-1A, DN50 DIN 11864-1A: 1.4404 (316L)

Field of application: The t-mass T 150 is the first thermal mass device from Endress+Hauser for measuring liquids. t-mass T 150 is designed chiefly for water applications. As it measures independently of the

electrical conductivity of a fluid and can be used in a variety of water-based and non-water-based liquids for the purpose of monitoring and trending. Customer-specific settings are saved on the display and can be transferred from one device to another by means of the display.

Features and specifications

Liquids

Measuring principle

Thermal

Product headline

The flowmeter for reliable and easy monitoring of liquids. Dedicated to the monitoring of conductive and non-conductive liquids.

Sensor features

High process safety – high repeatability and linearity due to integrated temperature compensation. Cost-effective measurement – easy installation, negligible pressure loss and maintenance-free. Reliable flow trending – multivariable measurement. Insertion version for nominal diameter DN 40 to 1000 (1½ to 40"). Sensor in standard or hygienic version.

Transmitter features

Fast and efficient commissioning – guided operating menus. High plant availability – self-diagnostics and error monitoring. Automatic recovery of data for servicing. Device in compact version with DC 24 V power supply. 4-20 mA HART, pulse/frequency/switch output.

Nominal diameter range

DN 40 to 1000 (1½ to 40")

Liquids

Wetted materials

Transducer: 1.4404 (316/316L); Alloy C22, 2.4602 (UNS N06022)

Insertion tube: 1.4404 (316/316L); Alloy C22, 2.4602 (UNS N06022)

Connection:

- Compression fitting: 1.4404 (316L); Alloy C22, 2.4602 (UNS N06022)
- Thredolet: 1.4404 (316L); Alloy C22, 2.4602 (UNS N06022)
- Clamping ferrule: PEEK 450G; 1.4404 (316L); Alloy C22, 2.4602 (UNS N06022)
- Tri-Clamp; DN40 DIN 11851, DN50 DIN 11851; DN40 DIN 11864-1A, DN50 DIN 11864-1A: 1.4404 (316L)

Measured variables

Mass flow, temperature, volume flow

Max. measurement error

Flow: ± 5 % o.f.s.

Measuring range

226 to 14 100 000 l/h (60 to 3 730 000 gal/h)
(under reference conditions)

Max. process pressure

PN 40

Medium temperature range

-20 to +100 °C (-4 to +212 °F)

Ambient temperature range

-40 to +60 °C (-40 to +140 °F)

Transmitter housing material

AlSi10Mg, coated

Degree of protection

IP66/67, type 4X enclosure

Display/Operation

4-line display with push buttons

Configuration via local display and operating tools possible

Liquids

Outputs

4-20 mA HART (active)

Pulse/frequency/switch output (passive)

Inputs

Status input

Digital communication

HART

Power supply

DC 18 to 30 V

Hazardous area approvals

ATEX, IECEx, cCSAus

Other approvals and certificates

3.1 material, calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025), NAMUR

Hygienic approvals: EHEDG, 3-A

Metrological approvals and certificates

Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025), NAMUR

Pressure approvals and certificates

CRN

Material certificates

3.1 material

Hygienic approvals and certificates

Sanitary approval: 3-A, EHEDG



info@lenntech.com Tel. +31-152-610-900

www.lenntech.com Fax. +31-152-616-289