

## Proline t-mass B 150 thermal mass flowmeter

The flowmeter for cost-effective measurement and easy monitoring of utility gases



More information and current pricing:

[www.cz.endress.com/6BAB](http://www.cz.endress.com/6BAB)

### Benefits:

- Suitable for air, nitrogen, carbon dioxide and argon in circular piping or rectangular ducts
- Optimal process monitoring – easy measurement even at low pressures and flow velocities
- 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** 3 % o.r. 4 % o.r. 5 % o.f.s. (depending on chosen option of ordering feature "Calibration flow")
- **Measuring range** 20 to 720 000 kg/h (45 to 1 587 600 lb/h) 20 to 1 080 000 kg/h (45 to 2 381 400 lb/h) (for air, depending on chosen option of ordering feature "Calibration flow")
- **Medium temperature range** -40 to +100 °C (-40 to +212 °F)
- **Max. process pressure** 20 bar g (290 psi g)
- **Wetted materials** Transducer: 1.4404 (316L) Insertion tube: 1.4404 (316L); 1.4435 (316L) Connection: Compression fitting: 1.4404 (316L) Sealing ring: EPDM; HNBR; 1.4401 (316) Clamping ring: PEEK 450G

**Field of application:** The t-mass B 150 insertion version is suitable for large pipelines or rectangular ventilation ducts. It is designed for the cost-effective measurement of utility gases, in particular compressed air. It is a trending device aimed at sub-metering applications. Its 4-wire

technology is contained within a rugged compact aluminum housing. 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

### Gas

#### Measuring principle

Thermal

#### Product headline

The flowmeter for cost-effective measurement and easy monitoring of utility gases.

Suitable for air, nitrogen, carbon dioxide and argon in circular piping or rectangular ducts.

#### Sensor features

Optimal process monitoring – easy measurement even at low pressures and flow velocities. Cost - effective measurement – easy installation, negligible pressure loss and maintenance - free. Reliable flow trending – multivariable measurement.

Insertion version for nominal diameter DN 80 to 1500 (3 to 60").

Installation and removal of sensor without process interruption. Easy installation.

#### 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. Compact and robust transmitter.

#### Nominal diameter range

DN 80 to 1500 (3 to 60")

## Gas

**Wetted materials**

Transducer: 1.4404 (316L)

Insertion tube: 1.4404 (316L); 1.4435 (316L)

Connection:

Compression fitting: 1.4404 (316L)

Sealing ring: EPDM; HNBR; 1.4401 (316)

Clamping ring: PEEK 450G

**Measured variables**

Mass flow, temperature, corrected volume flow, FAD volume flow

**Max. measurement error**

3 % o.r.

4 % o.r.

5 % o.f.s.

(depending on chosen option of ordering feature "Calibration flow")

**Measuring range**

20 to 720 000 kg/h (45 to 1 587 600 lb/h)

20 to 1 080 000 kg/h (45 to 2 381 400 lb/h)

(for air, depending on chosen option of ordering feature "Calibration flow")

**Max. process pressure**

20 bar g (290 psi g)

**Medium temperature range**

-40 to +100 °C (-40 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

## Gas

**Display/Operation**

4 - line display with push Buttons

Configuration via local display and operating tools possible

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**Outputs**

4 - 20 mA HART (active)

Pulse/frequency/switch output (passive)

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**Inputs**

Status input

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**Digital communication**

HART

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**Power supply**

DC 18 to 30 V

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**Hazardous area approvals**

ATEX, IECEx, cCSAus

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**Metrological approvals and certificates**

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

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**Pressure approvals and certificates**

CRN

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