Proline t-mass B 150
thermal mass flowmeter

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

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)

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\(^o\)). Installation and removal of sensor without process interruption. Easy installation.

**Transmitter features**
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\(^o\))
**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

**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

**Metrological approvals and certificates**
Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025), NAMUR

**Pressure approvals and certificates**
CRN

More information [www.us.endress.com/6BAB](http://www.us.endress.com/6BAB)