

## t-mass 65F



More information and current pricing:

[www.endress.com/65F](http://www.endress.com/65F)

### Benefits:

- Measurement of gases and gas mixtures in small line sizes
- Plant safety – high accuracy and repeatability for a wide range of utility and process gases
- 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** Gas: 1.5% o.r. (10 to 100% o.f.s.), 0.15% o.f.s. (1 to 10% o.f.s.)
- **Measuring range** 0.5 to 3750 kg/h (1.1 to 8250 lb/h)
- **Medium temperature range** -40 °C to +100 °C (-40 °F to +212 °F)
- **Max. process pressure** PN40 / Cl. 300 / 20K
- **Wetted materials** Transducer: 1.4404 (316L); Alloy C22, 2.4602 (UNS N06022) Process connections: 1.4404 (316L/316) Sensor body: DN 15 to 25 (1/2" to 1"): CF3M-A351 DN 40 to 100 (1-1/2" to 4"): 1.4404 (316/316L) Bushing: PEEK GF30, PVDF O-ring seals: EPDM, Kalrez 6375, Viton FKM

**Field of application:** The t-mass 65F inline device is specially designed for the direct mass flow measurement of industrial gases and compressed air. With a turndown of typically 100:1 it can measure accurately operational flow rates and off line leakage. The integrated gas engine allows the customer to configure the device for 20 freely selectable gases.

### Features and specifications

## Gas

**Measuring principle**

Thermal

---

**Product headline**

std\_productprofile\_product\_usp\_12695.  
std\_productprofile\_product\_field\_of\_application\_12696.

---

**Sensor features**

std\_productprofile\_product\_benefits\_12697. Cost-effective measurement installation, negligible pressure loss and maintenance-free.

std\_successorproducts\_product\_differentiating\_tech\_features\_50120\_1  
std\_successorproducts\_product\_differentiating\_tech\_features\_50121\_1  
std\_successorproducts\_product\_differentiating\_tech\_features\_50122\_1

---

**Transmitter features**

Reliable flow trending – multivariable measurement.

std\_productprofile\_product\_benefits\_12703.

std\_productprofile\_product\_benefits\_12704.

std\_successorproducts\_product\_differentiating\_tech\_features\_50123\_1

std\_successorproducts\_product\_differentiating\_tech\_features\_50124\_1

std\_successorproducts\_product\_differentiating\_tech\_features\_50125\_1

---

**Nominal diameter range**

DN 15 to 100 (1/2" to 4")

---

**Wetted materials**

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

Process connections: 1.4404 (316L/316)

Sensor body:

DN 15 to 25 (1/2" to 1"): CF3M-A351

DN 40 to 100 (1-1/2" to 4"): 1.4404 (316/316L)

Bushing: PEEK GF30, PVDF

O-ring seals: EPDM, Kalrez 6375, Viton FKM

---

**Measured variables**

Mass flow, temperature, volume flow, energy flow

---

## Gas

**Max. measurement error**

Gas: 1.5% o.r. (10 to 100% o.f.s.), 0.15% o.f.s. (1 to 10% o.f.s.)

---

**Measuring range**

0.5 to 3750 kg/h (1.1 to 8250 lb/h)

---

**Max. process pressure**

PN40 / Cl. 300 / 20K

---

**Medium temperature range**

-40 °C to +100 °C (-40 °F to +212 °F)

---

**Ambient temperature range**

-20 °C to +60 °C (-4 °F to +140 °F)

Optional: -40 °C to +60 °C (-40 °F to +140 °F)

---

**Transmitter housing material**

Transmitter housing:

Compact: powder coated die-cast aluminium

Wall-mount: powder coated die-cast aluminium

Remote field: powder coated die-cast aluminium

Connection housing (remote version): powder coated die-cast aluminium

---

**Degree of protection**

IP 67

NEMA 4x

---

**Display/Operation**

Liquid crystal: back-lit, two lines with 16 characters per line

Configuration via local display and operating tools possible

---

**Outputs**

4-20mA HART (active/passive selectable), pulse, frequency, status

---

**Inputs**

4-20mA, status input

---

**Digital communication**

HART, PROFIBUS DP, PROFIBUS PA, FOUNDATION Fieldbus, Modbus RS4

---

## Gas

### **Power supply**

85 to 260 VAC, 45 to 65 Hz

20 to 55 VAC, 45 to 65 Hz

16 to 62 VDC

---

### **Hazardous area approvals**

ATEX, FM, CSA, NEPSI

---

### **Product safety**

CE, C-tick, EAC marking

---

### **Pressure approvals and certificates**

PED, CRN

---

### **Hygienic approvals and certificates**

Oxygen service (certified acc. To BS IEC 60877)

---

More information [www.endress.com/65F](http://www.endress.com/65F)