NORTHDOME® is a unique transmitter that measures in real-time gas density and temperature. With its small footprint and stainless steel construction, NORTHDOME® is ideal for OEM applications such as being embedded into gas analytical instruments or gas metering systems. Its approved design for use in hazardous areas and its compactness give the NORTHDOME® the assets to bring gas density and temperature monitoring into a wide range of applications.

The fast response time and high repeatability provided by the patented MesoScale® design offer a unique opportunity to stay close to composition changes whether in laboratory or process conditions. Installed in a tank or through tubing, its “plug & play” capability leads to easy on site deployment which contributes to simplify and provide safer systems.

Combined with a pressure sensor, NORTHDOME® can be used to calculate the molar mass or the specific gravity of the monitored gas medium.

**NORTHDOME® MEASURES IN REAL-TIME**

- **DENSITY**
- **TEMPERATURE**

**NORTHDOME® BENEFITS**

- **EASY TO INTEGRATE**
  - COMPACT (< 10 cm)
- **DURABLE**
  - WETTED PARTS IN 316L STAINLESS STEEL
- **COST EFFECTIVE**
- **SAFETY IN HAZARDOUS AREAS**
  - ATEX / IECEx CERTIFIED (ZONE 0)

**TYPICAL APPLICATIONS**

- WOBBE INDEX CALCULATION
- ENHANCED PROCESS MONITORING CONTROL
- INDUSTRIAL GAS PURITY
GAS DENSITY METER

PERFORMANCES

Calibration ranges
(Other ranges on request)
- Density: 0.3 - 3 kg/m³ and 1.5 - 8 kg/m³
- Temperature: +10 ... 70°C

Accuracy
- Density: +/- 0.020 kg/m³
- Temperature: +/- 0.5°C
* Performances can be improved regarding the application

Repeatability
- Density: 0.005 kg/m³
- Temperature: 0.1°C

Operating conditions
- Temperature: -40 ... +105°C (+95°C in Ex areas)
- Pressure: 0 ... 20 bar
- Burst pressure: 100 bar

Communication protocols
(Other outputs on request)
- ModBus RTU (RS485), UART (via USB)
- 4-20 mA, Frequency

Certifications
- CE, EMC (EN61326-1:2013, Namur NE21:2011)
- ATEX II 1G Ex ia IIC T4
- IECEx Ex ia IIC T4 Ga
- TP TC 012/2011: 0Ex ia IIC T4 Ga X

MECHANICAL INTEGRATION

Dimensions in mm.

NORTHDOME® typical installation on flow through baseplate, with fittings from 1/8” to 1/2” NPT

 الجهالة المادية

القياسات في الملمام.

إعداد NORTHDOME® العادة على حقن عبر قاعدة، مع مجموعات من 1/8” إلى 1/2” NPT

*approximate total weight 500g