

Suitable for: RITTER Drum-type Gas Meters

Filling liquid: Isoamylbenzoat »IAB«

Measuring Range

0 °C to + 80 °C scale graduation 0.5 °C

15 °C to + 30 °C scale graduation 0.1 °C



Application

The Thermometer can be used for measurement of the gas temperature while measuring the gas flow. Among other reasons, this is necessary if the measured and indicated **actual volume** of gas must be recalculated into the **norm volume**. The **actual volume** is the volume at the **actual** temperature and the **actual** pressure. The **norm volume** of a gas is the volume at **norm conditions** which are (in Germany).

The **norm volume** of a gas is the volume at **norm conditions** which are (in Germany):

Norm Temperatur = 273,15 Kelvin (= 0 °C)

Norm Druck = 1.013,25 mbar

The formula for converting the actual volume into norm volume is:

$$V_n = V_i \times \frac{p_n}{p_i} \times \frac{T_i}{T_n} \quad \text{where}$$

V_n	=	Norm Volume in	[ltr]
V_i	=	indicated Volume in	[ltr]
p_n	=	Norm Pressure in	[mbar]
p_i	=	actual Pressure in	[mbar]
T_n	=	Norm Temperature in	[Kelvin]
T_i	=	indicated Temperature in	[Kelvin]

Installation

Unpack the Thermometer. Unscrew the closing cap of the Thermometer (Gas) support on the Gas Meter. Mount the Thermometer by inserting it carefully through the Thermometer (Gas) support. Seal the Gas Meter's casing by tightly screwing the union nut which is attached to the Thermometer. Thus, the Thermometer is ready for use. The removed closing cap of the support can be stored easily by screwing it onto the respective thread support located at the base plate of the gas meter.

V 2.0 / Rev. 2020-01-30 / Subject to alterations.

The most recent version of this data-sheet can be found at <https://www.ritter.de/en/data-sheet/thermometer-tg-gas/>
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