

TanGas Flow HT



Industrie NDIR Analyser

simple operation and calibration

Analog output 4-20mA

bypass measurement using a pump

measurement of explosive gases and vapours

simple installation

rugged NDIR analyser

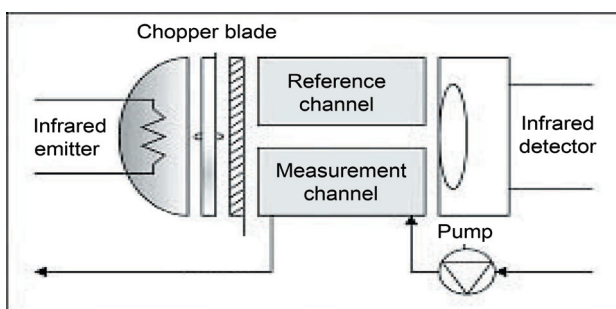
Protection class IP65



TanGas Flow HT / Industrial NDIR Analyser

Function

During the NDIR gas analysis (NDIR: non-dispersive infrared spectroscopy) the infrared radiation transmitted by a radiation source is conducted through a room (cuvette) filled with the gas to be analysed. The emerging radiation is then measured by a detector in a certain wavelength range. For the selection of this wavelength range non-dispersive elements such as optical filters are used instead of dispersive elements such as prisms or diffraction gratings.



If the gas absorbs infrared radiation in this range, the gas concentration can be determined through the radiation reduction level, the spectral range of the infrared absorption (so e.g. CH₄, CO₂ and NH₃, but not HE, N₂, O₂).

Application

This sensors are particularly used wherever precise measurements, high selectivity, insensitivity to toxic substances and unambiguous measurement results are of utmost importance.

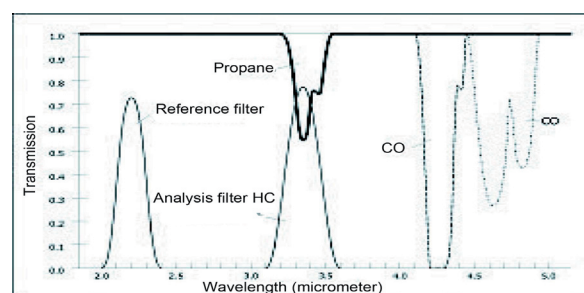
Measurement ranges for volume concentrations of ppm (ppb, if applicable) up to 10%.

Suitability

For measurements and warnings down to the LEL and for volume concentrations up to 100%.

Cross sensitivity

The selectivity depends on the type of gas and the optical design of the measurement equipment.



Assets

- Suitable for the measurement of explosive gases and vapours in concentrations close to the LEL (Lower explosive limit)
- Bypass measurement using a pump for measurements in places that are hard to access
- Analog output 4-20mA, two alarm thresholds and fault messages with 24V output for the alarm
- Rugged NDIR analyser; with appropriate sample preparation also suitable for rugged industrial environments
- Protection class IP 65 (Plug IP67), suitable for outdoor installation
- Simple operation and calibration

Technical data

Measurement range:	(Hydrocarbons) 0-5.0% CH ₄
Accuracy:	+/- 2% FS max.
React. time (T90):	10 sec from gas entry
Temp. range:	-20°C to +50°C (short time 60°C)
Humidity:	0-95% (non-condensing)
Power cons.:	6 W
Outputs:	4-20mA (linear)
Resolution:	0.1mA

Technische Daten / Performance Characteristics / Données techniques: