

TCD 200 TG

Thermal Conductivity Gas Analyser



AVAILABLE OPTIONS:

- inert gas purging for preventing hazardous atmosphere inside housing
- pressure reducer (max 10 bar in, 50 mbar out)
- particle filter 2 μm
- 5-way valve
- electrical/pneumatical pump
- electronic flow monitoring/- alarm

For measurement of binary gas mixtures ISATEC offers the Analyser TCD 200 TG: the measuring principle of Thermal Conductivity uses the different thermal conductivity of gases.

The main advantage of ISATEC TCD 200 TG is the speed of the measurement. Due to the extremely low thermal mass of the sensor, T-90 Times of less than 2 Seconds at a gas flow of 50 NI/h can be reached.

For use of ISATEC TCD 200 TG in hazardous areas classified as Zone 2, the system can be equipped with continuous inert gas purging.

Typical applications are the measurement of:

- Hydrogen in Nitrogen
- Hydrogen in Helium
- Argon in Nitrogen or Oxygen
- Carbon dioxide in Nitrogen or Oxygen
- Carbon dioxide in Methane

ISATEC TCD 200 TG is available for wall mounting IP 65, or in a panel mounting version IP 54. The micro-processor controls the electronics and the display. Calibration and maintenance sequences can be controlled from the analyser's main menu.

Automated components allow remote control of the ISATEC TCD 200 TG from the control room.

ISATEC TCD 200 TG

TECHNICAL SPECIFICATIONS

Measuring range	Depending on gas composition/ Typical gas mixtures are:		
	Sample gas	Associated gas	Measuring range
	H ₂	N ₂ or air	0-0,5/98-100/0-100 Vol. %
	H ₂	Ar	0-0,3 Vol. %
	H ₂	He	20-100 Vol. %
	He	N ₂ or air	0-0,8/97-100/0-100 Vol. %
	Ar	N ₂ , O ₂ or air	0-3/96-100/0-100 Vol. %
	CH ₄	N ₂ or air	0-3/96-100/0-100 Vol. %
Analogue output port	(0) 4 ... 20mA or 0...10 V		
Reproducibility	≤ 1 % of measuring range		
Resolution	0,1 % of measuring range, or 0,01 Vol. % depending on gas concentration		
T-90 Time	≤ 2 Sec. at a flow of 50 NI/h		
Longterm drift	< 2% of the smallest measuring range per week		
Display	2 x 16-digit LCD Display		
Gas connections	Inlet / Outlet 3 (6) / 6 mm ferrule pack		
Gas sampling	integrated gas inlet valve Gas flow meter		
Sample gas flow	min. 25 NI/h, max. 50 NI/h		
Sample gas pressure	min. 1,01 bar abs., max. 2 bar abs.		
Sample gas temperature	From 5°C to + 45 °C		
Ambient temperature	From 5°C to + 45 °C		
Relative humidity	0 ... 99 % not condensing		
Power supply	24 VDC		
Protection class / Housing / Dimensions	IP 65/wall mounting/ca. 300 x 260 x 130 mm IP 54/panel mounting/144 x 144 mm		
Weight	2-5 kg		