

FID-PT84 DATASHEET

JUNHO 2013

Thermo-FID PT84/LT

Flameionisationdetektor – Portable

Technical data

Models	PT84/LT
	PT84 with bottleholder
Weight PT/LT	11 kg
Weight PT with bottleholder (without bottles)	16 kg
Dimension PT/LT	W = 483 mm H = 155 mm D = 380 mm
Dimension PT with bottleholder	W = 483 mm H = 290 mm D = 380 mm
Measured value display	selectable
	ppm
	mg/m ³
	g/m ³
	Vol%
	%LEL
Linearity	< 4% above measurement range
Measured value output	0(4)mA to 20mA; burden 600Ω not galvanically isolated
Ambient temperature PT/63	-5°C to 40°C
Ambient temperature PT63/LT	+5°C to 40°C
Air humidity	< 90% rel. humidity, + 20°C
	< 50% rel. humidity, + 40°C
Geographical altitude	0 to 1500 m above NN
Protection class (DIN40050)	IP20



The Thermo-FID PT84 is a completely mounted analyser with a portable 2/3 19" rack. Optional there can be adapted a bottleholder or a pressure-regulator for hydrogen and spangas. Burnerair and zerogas are standardised over catalyst. The sample gas conveyance takes place over the internal membrane pump. (Leakage control; Exhaust Emission control; Plant monitoring; Methanefree measurements)

General application

The Thermo-FID is applied in a variety of applications for all kind of industries, environmental protection and as well for research and development. The implementations reach from an LEL-control, over emission and immission control to analytical exhaust control for the chemical industry and in the field of engine-development. Furthermore there is process optimisation and the FID is also used in the field of analytical control of TLV- and TRC- values.

Technical design

The electronic system of the FID allows several extra functions. The integrated CPU allows a menu-driven handling as well as a full automatic self-control and failure analysis of the system. On the alphanumeric display are shown several operation and service instructions in clear text which give an easy maintenance process. The process-controlled and dynamic amplifier analysis always within the optimum range. The amplified signals are digitised directly at the detector and get transmitted as digital data to the CPU for the analysis. Therefore there is no distortion of the little currents because of badly shielded or too long signal ways.

Accreditation	17. BImSchV / TA Air (936/806016) QAL 1 (DIN EN 14181 and DIN EN ISO 14956) MCerts (Sira MC 050062/00)	
Vaccum System	Membrane pump	
Measurement range	2 mg org.C/m³ to 100.000 mg org.C/m³	
Detection limit	< 0.05 mg org.C/m³	
Response time (T90)	< 0.5 s if measured value > 20 mg org.C/m³ < 5.0 s if measured value < 20 mg org.C/m³	
Samplegas (self-drawn)	ca. 25 l/h with 1013 hPa	
Samplegas-pressure	800 mBar to 1200 mBar	
Detector-temperature	T2: 110 °C to 170 °C T3: 130 °C to 165 °C T4: 95 °C to 100 °C	
Supplementary heating system (PT100)	T2: 0 °C to 260 °C T3: 0 °C to 180 °C T4: 0 °C to 110 °C	
Catalyst-temperature	400 °C	
Instrumentair	Ambient air above Membrane pump	
Fuel gas	Hydrogen 0.7 Bar to 1.0 Bar / < 80 ml/min Quality 5.0	
Burnerair	Over internal catalyst	
Calibrationgas	2.0 Bar bis 2.5 Bar / < 130 NI/h Konzentration 60 % to 80 % of the measurement range In relation to C3H8	
Zeropointgas	Over internal catalyst	
Nominal voltage	115 V ± 10 % or 230 V ± 10 %; 48 Hz to 62 Hz; < 250 W	
Supplementary heating system (Probe, external catalyst)	115 V ± 10 % or 230 V ± 10 %; 48 Hz to 62 Hz; < 1000 W	
Models	PT63 with bottle connection	PT/LT
Bottleholder	DIN 477	DIN 477
Fuel gas	Typ 1	Typ 1
Calibrationgas	Typ 14	Typ 14
Bottle size	1l	1l

Additional Information for PT84



Front PT84/LT on stand



Back PT84 with bottleholder

Order data

Thermo-FID ,PT84'	Thermo-FID Portable ,PT84' with bottleholder
Thermo-FID ,PT84/LT'	Thermo-FID Portable ,PT84'/LT (without bottleholder)

Options

<i>Gas bottle regulator/ pressure regulator 84 TE for Hydrogen and span gas</i>	
Modul Methanefree-Methane	Inclusive Status-/Alarmboard
Probe for withdrawal of gas	180°C heated up to 3 m
	180°C heated up to 5 m
Supplementary regulators	Temperature controller 300 di IP65
	Temperature controller 300 di KA 19" 21TE
Internal Membrane pump	Standard
External Membrane pump	On request
Dilution probe 1:10/ 1:20	Dilution probe heated without enclosure
External Zerogas	Conversion kit Zero gas external
Synthetic Air for Burnerair	Conversion kit Zero gas external and synthetic Air as Burnerair
Flame Trap ATEX 94/9/EG	In Line Flame Trap FS 30 Eex dIIC

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