



iFiD NMHC

NMHC Flame-Ionisation-Detector
iFiD NMHC for Mobile for monitoring
of NMHC, THC and CH₄

Complies with EN 12619 & EN 13526
standards for emission monitoring
EN 25140 in preparation



Description

The **iFiD Mobile** Flame-Ionisation-Detector (FID) **iFiD NMHC** measures with its built in NMHC Cutter the methane concentration and parallel in a second channel also the THC in a wide range of applications air monitoring, thermal reactor and combustor emissions monitoring and also vehicle exhaust gases. The monitoring is continuous with a high accuracy, sensitivity and stability. All components which come in contact with sample are fully heated at 200°.

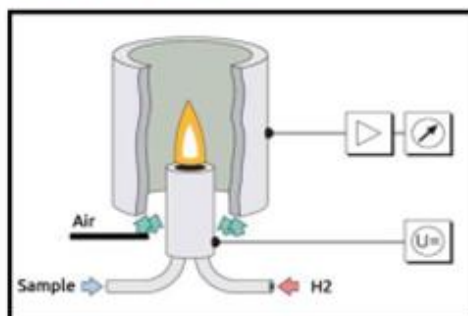
Special Advantages

- User-friendly Touchpanel 7" TFT
- Single Range – no switch between ranges
- Graphic Display of HC-concentration
- Heated integrated Samplegasfilter 300°C
- Internal Datalogging by USB Stick
- Internal Response Factor correction

Applications

- Emission monitoring
- Fuel Cells
- Waste plants and process control andfills

Operation principle



iFiD NMHC

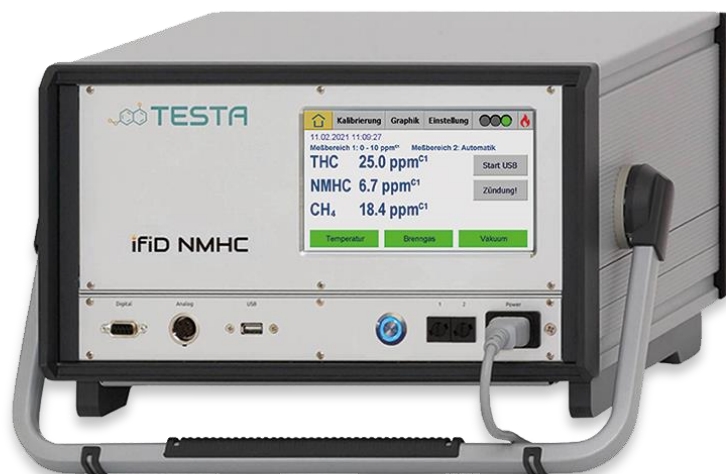
System Performance

Measuring component:	CH ₄ and C _x H _y
Operation:	7" TFT – Touch
Display: ppmC ₃ or ppm C ₁	NMHC CH ₄ THC
Measuring range:	0 - 10.000 mgC/m ³
Repeatability:	± 1 % of Range
Zero drift:	± 1 % in 24 h
Response time:	1 Sec. (T ₉₀)
Warm-up time:	15 minutes
Analogue Output:	0-20mA ; 0-10V
Digital Output:	Ethernet - RS232
Remote control:	VNC; over tablet

Gas Requirements:

• Fuel	H ₂ 5.0 or He/H ₂
• Span gas:	C ₃ H ₈
• Zero gas:	synthetic air
• Combustion air:	over built in cat

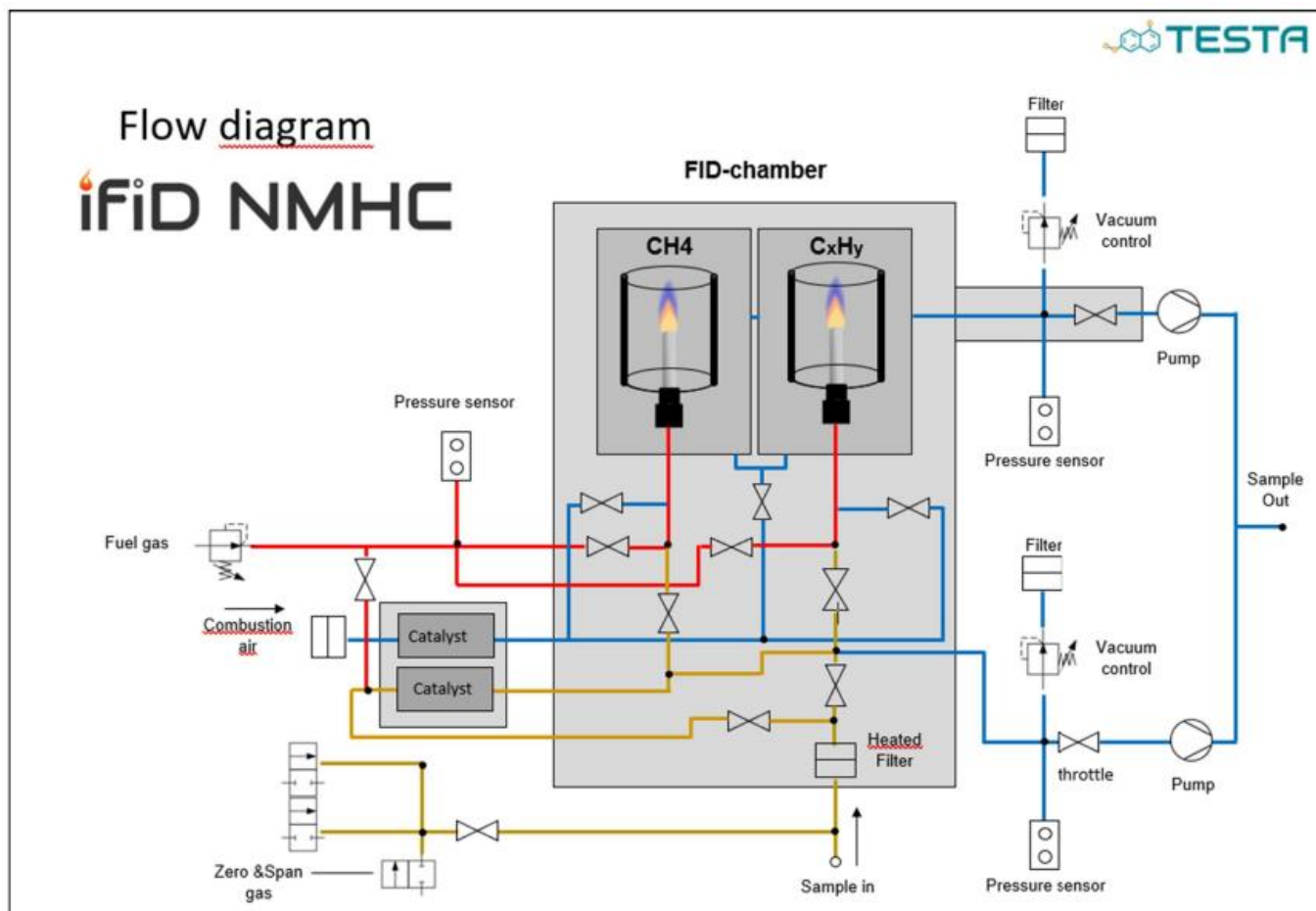
Fuel consumption:	30 ml/min
Zero / Spangas:	1 l/min
Flowcontrol:	integrated
Pressure Compensation:	-150hPa +500hPa
Power supply:	100 V ... 240 V
Frequency:	50 Hz.... 60 Hz
Power consumption:	350 W
Ambient temperature:	0°C ... +45°C
Protection class:	IP42
Dimensions (H x W x D):	178x370x420mm
Weight:	12 kg



L'iFiD NMHC Mobile è un dispositivo di misurazione a **2 canali**. L'unità è PROVISTA DI un catalizzatore di metano incorporato per misurare il contenuto di CH₄ al canale 1 e il contenuto di TOC contemporaneamente al canale 2.

Quindi **la misurazione viene eseguita determinando simultaneamente l'esatto valore di TOC, il valore di metano e il calcolo del corrispondente valore NMHC.**

Tutti e 3 i parametri di questa analisi (THC - CH₄ - NMHC) vengono visualizzati **contemporaneamente** e possono essere memorizzati su chiavetta USB o registrati nel software dello strumento (iFiD Master).



Technical specifications

Adjusted measuring range and supplied system documentation

Measured values	
Measuring principle	Flame ionization
Measuring component	Total hydrocarbon (THC), Methan (CH ₄), NMHC
Concentration unit	mgC/m ³ , ppm C ₁ , ppm C ₃ ,
Smallest measuring range	0 ... 1 mgC/m ³
Largest measuring range	0 ... 10.000 mgC/m ³
Certified measuring range according to DIN EN 15267-3	0 ... 15 mgC/m ³

Time response	
Warm-up time (depending on settings)	15-60 min (at room temperature)
Response time (device rear panel)	approx. 3.0 s

[1] At sample gas inlet

Measurement behavior	
Zero point drift[1]	< 2 % rel. at maintenance interval [2]
Sensitivity drift[1]	< 2 % rel. at maintenance interval [2]
Reproduction	< 1 % from measuring range end value
Repeatability	< 1 % from measuring range end value
Detection limit	0.05 mg/m ³ org C
Linearity	< 2 % from measuring range end value

[1] With daily zero and reference point adjustment

[2] Maintenance interval = 4 weeks according to DIN EN 15267

Analogue output	
Analogue output (2x)	0-20mA with living zero point at 4mA
Burden	300 Ohm

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Device properties	
Type	NMHC
Height units	3 U (plus 1 U for thermal compensation)
measures	12 kg (26 lbs)
Heating temperature	
- Detector	190 °C (374 °F)
- External heating (optional)	60 ... 250 °C (140 ... 480 °F) (adjustable)
Sample gas flow	Approx. 50 l/h
Input pressure absolute measuring gas	90 ... 110 kPa (0.9 ... 1.1 bar)
Environmental conditions	
Ambient temperature	+5 ... +40 °C (40 ... 104 °F)
Storage temperature	-20 ... +70 °C (0 ... 160 °F)
Relative air humidity	Max. 95 % (without condensate formation)
Ambient air pressure	900 ... 1100 hPa (mbar)[1]
Protection class	IP 42, for use in rooms
Permissible contamination	Pollution degree 2

[1] If the pressure is different: If necessary, adjust the pressure after consultation with Testa customer service.

Energy supply				
Mains voltage: – - Electronics & Heating	115/230 VAC (multi-range power supply)			
Mains frequency	50 Hz			
Power consumption: - Electronics - Detector heating - External heating system	Max. 50 VA Max. 350 VA Max. 1000 VA			
Mains fuse device plug	230 V: 6,3 A, low			
Gas supply				
Gas	Quality	Flow rate	Inlet pressure	Connection [1]
Fuel gas	H ₂ ≥ 5.0	60 ml/min	300 ± 20 kPa (3 ± 0.2 bar)	
Combustion air	Internal catalyst (standard) External combustion air generator (option)	30 l/h		
Zero gas	C external	75 l/h		
Span gas	– Propane in synthetic air – Methan in synthetic air - concentration: approx. 80 % of the CRE	75 l/h		

