HIOTS
Helvetia IoT Solutions

HIOTS Emission Monitoring Systems

TOWARDS A STRONG AND RELIABLE EMISSIONS MONITORING SYSTEM !

iOTEST

Cloud Data Logger

How ioTest Can Help You ?

The ioTest is a continuous emission monitoring system which can be used as a tool to monitor engine parameters such as exhaust temperature, backpressure, λ (lambda), O2, NOx, PM, RPM, OBD-II and other parameters according to requirements.

The ioTest collects real-time data from onboard sensors and gives this opportunity to check the measurements from anywhere through the web application. Along with online data visualization and alarm notifications, the ioTest stores sensor data, alarm codes and audit logs for compliance reporting up to 10 years. The ioTest can be used for R&D, regulatory preparation, benchmarking or monitoring components involved in the after-treatment of exhaust gases such as DPF and SCR.

SWISS ENGINEERING

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HIOTS

Helvetia IoT Solutions

ALL-IN-ONE MONITORING SOLUTION

iOTEST

Cloud Data Logger

GPS System

On-board diagnostics

Alarm LED Indicator

Industrial 4G Modem

Differential Pressure Sensor

Harness

Particulate Matter Sensor

NOx sensor

Wideband lambda sensor

Exhaust Temperature Sensor

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MORE THAN JUST DATA ACQUISITION

WEB APPLICATION MONITORING

Web Access to measurement data and viewing LiveData via the browser

- Live data view and storage
- Measurement data can be downloaded as .CSV files
- Easy acknowledgment of alarms
- Changing logger parameters over the air
- Access to GPS Location
- No local software installation, intuitive user interface

SMART PHONE APP MONITORING

Access anytime any where with Mobile Apps, HIOTS Cloud

- Viewing live data in Live view
- All measurement data are constantly available
- Alarm function for critical values
- Access to GPS Location
- Protection of measurement data by secure login

POST-PROCESS ANALYSIS SOFTWARE

Powerful and flexible post-processing software for the visualization and interpretation of data

- Specialized functionality for Aftertreatment System
- Graphical data visualization
- Data cleansing and preparation: curve operation, statistics
- Export data and report test result
- Multiple-format data export for use in third-party applications

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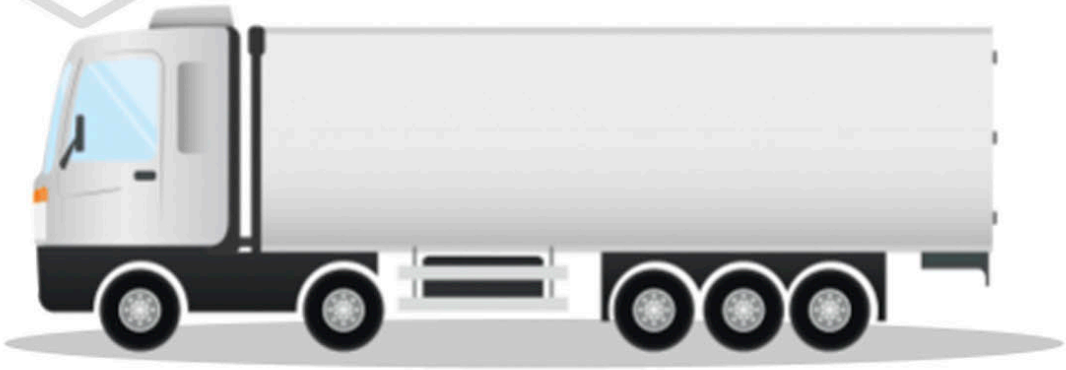
iOTEST
Cloud Data Logger



STANDARD SYSTEM

- ioTest Wi-Fi Cloud DataLogger
- Differential Pressure Sensor
- Exhaust Gas Temperature Sensor
- Cable Harness with WiFi Dongle 4G Modem
- Alarm and LED Indicator
- Engine RPM and Digital /Analog input

OPTIONS

- Industrial 4G Modem
- GPS System
- OBD-II Scanner Interface
- Wideband lambda sensor
- NOx sensor
- Particulate Matter Sensor (Soot Sensor)

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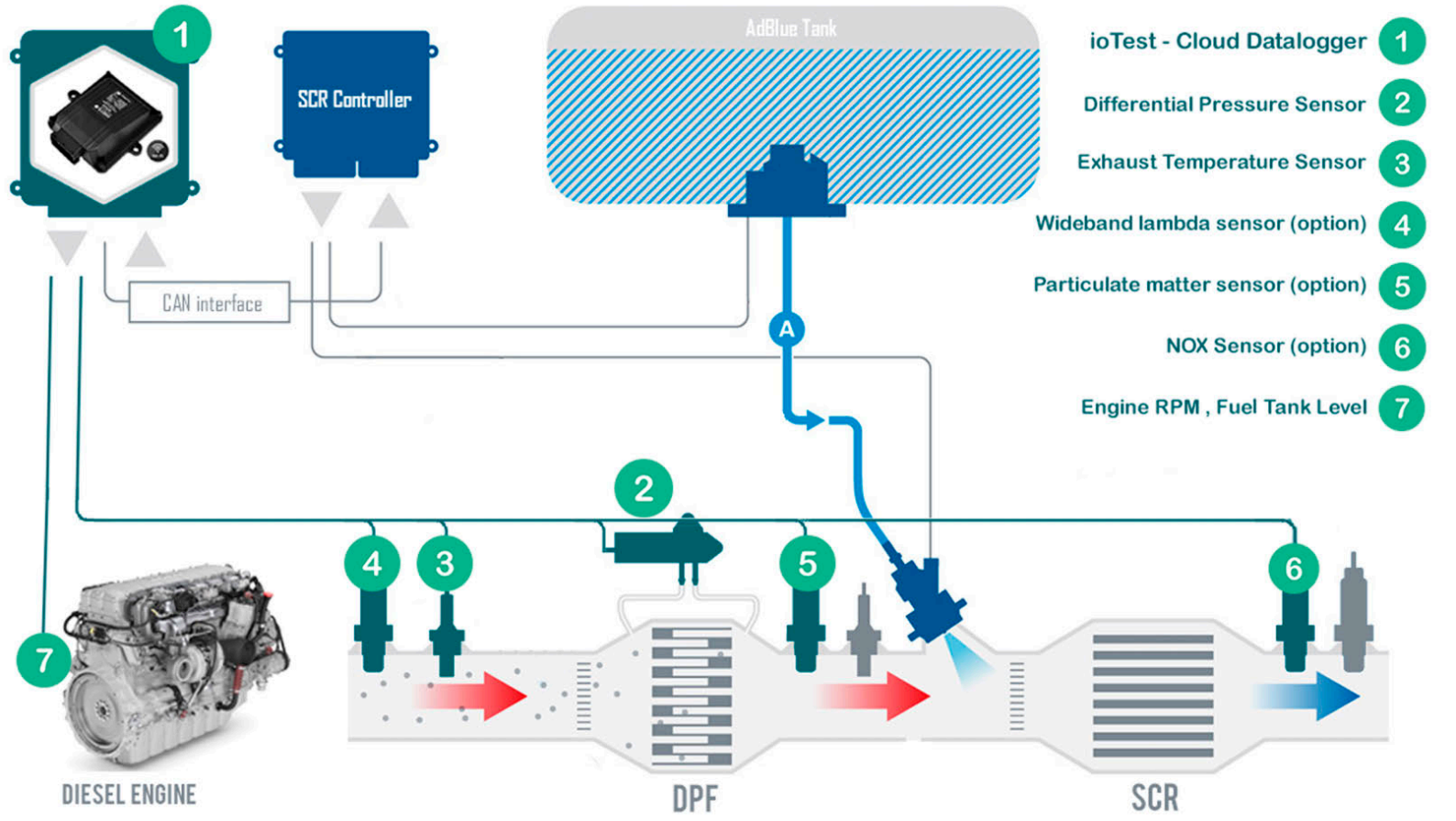
SYSTEM DETAIL VIEW



1 ioTest - Cloud Datalogger
2 Differential Pressure Sensor
3 Exhaust Temperature Sensor
4 Wideband lambda sensor (option)
5 Particulate matter sensor (option)
6 NOX Sensor (option)
7 Engine RPM , Fuel Tank Level

SPECIFICATIONS AND TECHNICAL DATA

The ioTest data logger is a completely isolated device which collects, stores and transmits data to a cloud database without being dependent on any external sources. The main data logger section is responsible for collecting data coming from sensors and storing them on an internal Memory. Being beneficiary of a Wi-Fi connection to the provided external 4G industrial modem router, data would be transmitted to the data server.

INTERFACES :

Differential Pressure Sensor		0 – 900 mbar
Exhaust Temperature Sensor		0 – 900 ˚C
Engine RPM input Signal (W)		0 – 10000 rpm
GPS system*		
Fuel Level Meter	Analog input	2-10 volt
1 x RS485		
1 x CAN-bus	[CAN Wideband lambda sensor*	λ = 0.65 to air]
	[CAN NOx sensor* Measuring range:	0–3,000 ppm]
	[CAN Particulate Matter Sensor*	(Soot sensor)]

2xDigital output Alarm Buzzer with LED indicator light
On-board diagnostics OBD-II Scanner Interface*

Standard Harness with 3G/4G dongle WIFI cellular modem
Industrial WIFI 3G/4G Cellular modem*

GENERAL:

Power supply	10 – 38 VDC	
Memory capacity	16 GB	Storage for up to 10 years
Sampling rate	1Hz	Selectable sample rate
Wi-Fi protocols	802.11 b/g/n	
Wi-Fi frequency range	2.4 ~ 2.5 GHz	
Processor cores	2	
Operating Temp	-20 ~ 80 ˚C	
Dimensions	120 × 108 × 32 mm	

Electrical protection: Reverse polarity, short circuiting and overvoltage

*option