AVL COMBUSTION MEASUREMENT SYSTEMS

INDIMICRO™

THE NEW DIMENSION IN MOBILE COMBUSTION ANALYSIS

The IndiMicro™ sets a new standard for compact combustion measurement systems. It's small size and the combination of signal amplification and powerful data acquisition qualifies the system for a wide range of mobile application. Four analogue inputs and two digital inputs for preconditioned and multiplexed current clamp signals enable to record all the necessary information, which is synchronized with the ECU crank angle signal. An integrated GigaBit Ethernet interface supports the real time raw data transfer to a connected laptop or automotive PC utilizing the data acquisition software IndiCom Mobile™. This software is specially designed for the need of mobile combustion investigations. The workflow oriented user interface reduces preparation time and makes the full range of functionalities easy to use for every user. During the measurement a professional graphical display enables to monitor the acquired or in real time calculated indicating parameters. IndiMicro™ can also operate as standalone device providing real time processed results values on an integrated CAN bus interface.

Your Benefits at a Glance

- Very small size , facilitating also unconventional mounting positions closer to the sensors
- Wide operating temperature range and very low power consumption, therefore also ideally suited for cold start measurements.
- Direct integration into application system (e.g. INCA)
- Connection of a Hall sensor and current clamps by one small common interface box with a single cable wiring to IndiMicro.
- Full upgrade path to IndiCom Top level.

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Technical Data / Product Name	**IndiMicro**
Product Description	Ultra compact indicating system for direct connection of pressure sensors
Analog Input channels	4 channels , each either for piezoelectric sensors or as voltage inputs
Sampling Rate per Channel	1MHz per channel
ADC Resolution	16 Bit
Analog Input Signal	+/- 10V
Digital In Channels	2 ; connection via AVL Universal Pulse Conditioner 389
Digital Out Channels	2
CAN interface	yes
Input Range (piezo)	Up to 14,400 pC
Linearity	+/- 0.01% FS
Filter	2, 5, 10, 20, 50,100kHz
Digital data filters	User definable digital filter before transformation to crank angle
Drift Compansation	Cyclic or continuous drift compensation modes
Crank Angle Inputs	LVDS ; direct connection of AVL 365 or AVL Universal Pulse Conditioner 389; 60-2, 36-1 and similar ECU signals also supported
Interface	GigaBit Ethernet to PC/Notebook
Testbed Connection	RS232 or TCPIP
Special Measurement modes	Continuous Data Transfer
Real Time Processing	yes
Plausibility	Plausibility monitoring for indicating hardware and data with error output as Bit or message
Operation mode	Time based data acquisition with automatic transformation to crank angle; Automatic Cold Start Sequence; Background Event Monitoring; Continuous Raw Data Streaming to PC / Hard disc; Operation also without PC
SW Package	IndiCom Mobile or IndiCom Top
Temperature Range	-35°C…50°C
Dimensions W x H x D in mm/ Weight in kg	9.5” x 1HU x 27 cm/ 3kg
Power Supply/ Consumption	9 – 36V / 25W
Application	The IndiMicro™ is a solution for mobile combustion investigations. Because of its compact design the handling and installation effort is very simple, which makes it very suitable for changing operational areas.

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