

## Climatic Test Measurement System

Application Note #28



Questi prodotti sono distribuiti e supportati in Italia da:

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The sheer amount of new car designs and the time they spend in development are stunning. But to bring new cars to market at ever-shorter intervals, new and innovative test and measurement philosophies are needed.

Climatic car tests are usually differentiated between climate test-cell measurements and road-based measurements—a distinction which often leads to problems—such as incompatible measurement data produced by different systems and long set-up times between road and facility-based measurements. In addition, mastery of different systems is necessary. These problems have to be solved to boost the efficiency of tests.

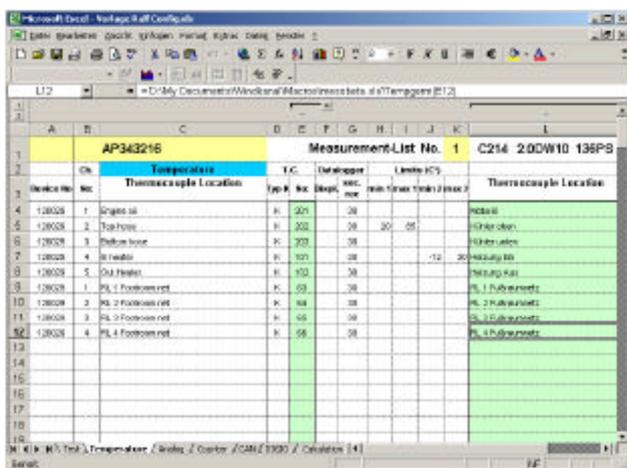
Together with FORD, imc has developed a special climatic measurement concept. It gives due consideration to all requirements of both road-based and climatic wind tunnel measurements. The imc CRONOS-PL measurement system and imc CANSAS serve as its base, together with a turn-key software solution.



**CRONOS PL-8 with 128 temperature channels**

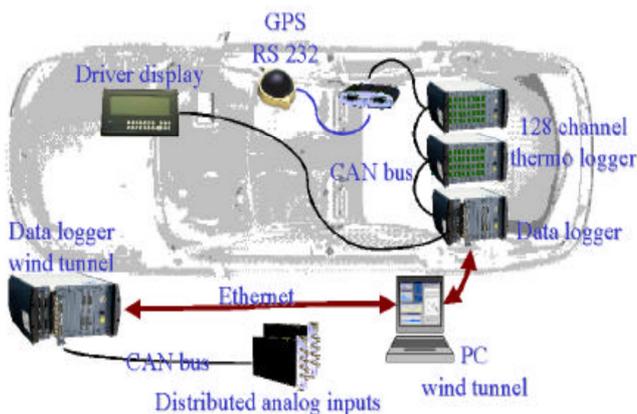
The compact and durable system provides a practically infinite number of analog signal inputs (temperature, voltages, etc.) and is equipped with a synchronized CAN bus interface. A special hardware design allows operation in an ambient temperature range between -40°C and 70°C. The PC-independent systems store their data in a 4 GByte flash card and a “Personal Analyzer” can be used for statistics, math or analytical online calculations. Therefore, the results are instantly available right after, or even during the measurement. A PC or data server connection uses the built-in Ethernet interface or WLAN technology.

All further analysis and documentation can be performed with the help of imc FAMOS, imc’s offline analysis tool.



AP343216		Measurement-List No. 1				C214 2.0DW10 138PS	
Device No.	Temp. Thermocouple Location	Type	Unit	Range	Limit	Unit	Temp. Thermocouple Location
4	128028 1	Engine oil	K	200	20		Motor
5	128028 2	Top floor	K	200	20	30	Motor
6	128028 3	Bottom floor	K	200	20		Motor
7	128028 4	Oil cooler	K	200	20	10	Motor
8	128028 5	Oil filter	K	200	20		Motor
9	128028 1	PL 1 Footwear net	K	50	20		PL 1 Footwear net
10	128028 2	PL 2 Footwear net	K	50	20		PL 2 Footwear net
11	128028 3	PL 3 Footwear net	K	50	20		PL 3 Footwear net
12	128028 4	PL 4 Footwear net	K	50	20		PL 4 Footwear net

**EXCEL databases are the used for the system configuration**



Centralized and decentralized measurement systems can be combined, and a driver display rather than a PC provides the necessary information.