

Climatic Test Measurement System

Application Note #28



Questi prodotti sono distribuiti e supportati in Italia da:



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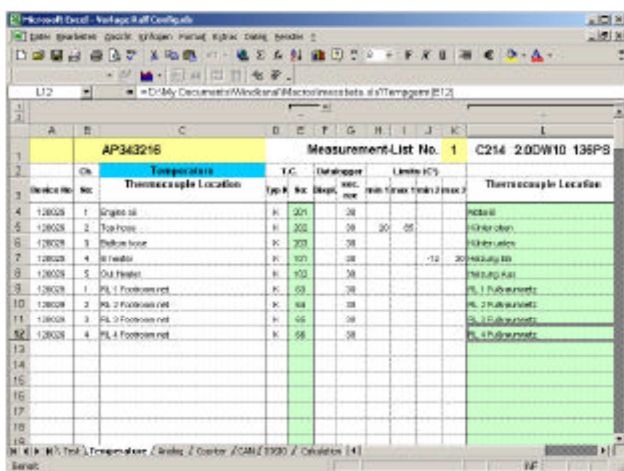
The sheer amount of new car designs and the time they spend in development are stunning. But to bring new cars to market at ever-shorter intervals, new and innovative test and measurement philosophies are needed.

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

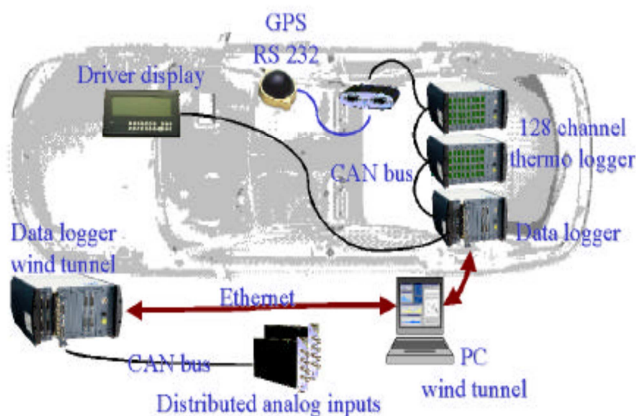


AP343216		Measurement-List No. 1				C214 2.0DW10 138PS
Device No.	Temp. Thermocouple Location	Type	Temp. range	Units	Temp. range	Thermocouple Location
4	128028 1 Engine oil	H	205	20		Motor
5	128028 2 Top floor	H	205	20	30	Motor
6	128028 3 Bottom floor	H	205	20		Motor
7	128028 4 Air intake	H	205	20	10	Motor
8	128028 5 Oil Pan	H	205	20		Motor
9	128028 1 PL 1 Footwell	H	50	20		PL 1 Footwell
10	128028 2 PL 2 Footwell	H	50	20		PL 2 Footwell
11	128028 3 PL 3 Footwell	H	50	20		PL 3 Footwell
12	128028 4 PL 4 Footwell	H	50	20		PL 4 Footwell

EXCEL databases are the used for the system configuration

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.



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