imc CRONOS*compact*

Measurement
Monitoring
Control
Simulation

imc
integrated measurement & control

Off road multi-channel, mixed signal simultaneous data logging: analog and CAN

In vehicle logging, e.g. vehicle validation testing and prototype fleet recording

Sound and vibration analysis, e.g. multiaxis force and acceleration measurements

Voltage & High Voltage	Analog Output	Temperature	Strain Gauge	Frequency Speed/Angle	Digital Input/Output	Acceleration	Audio	Video

SAVING YOU TIME ...

- Modular system – quick and easy to adapt to new test requirements
- Universal sensor-/signal connectors
- Automatic sensor recognition (TEDS)
- High precision, 24/16-bit resolution – virtually eliminating digitizer noise
- Live calculated results during measurement
- Measurement, open and closed-loop control, and simulations all with one synchronous system
- Graphical, menu-driven operation – no programming necessary
- Easily integrates into any testing environment
- State-based configuration of test routines without programming
- Automation of operation, analysis and documentation
- Adaptable user interface for custom measurement tasks
- Flexible i/o configuration for automation environments

Platform Based Modular Design - Universal, Flexible, Versatile

Across test stand, benchtop, and mobile applications, imc CRONOS*compact* provides you with the versatile possibilities of an integrated hardware and software design platform.

The modular equipment structure and its universal connectivity offer the flexibility you need for a diverse range of measurement and control tasks, all with one instrument.

SIMPLY CLEVER:

The Right Connections
- CAN Bus
- LIN
- FlexRay
- PROFIBUS
- EtherCAT

Wireless Measurements
- WLAN
- UMTS/3G
- GPRS/EDGE
- Modem

Capture synchronized signals from different sensors, analog and digital data, as well as Field bus, audio or video data, and apply these operations directly online: basic math functions, data reduction, events, FFT-analysis, filters, statistical functions, class-counting, strain gauge rosettes, closed-loop control and PID, target value monitoring, Field bus simulation, simulation, analysis of rotating machinery, power measurements, and more.

REAL TIME POWER:

Measurement and simulation with one device
- Run MatLab/Simulink models directly in the system
- Live synchronous calculations with measured channel signals

Test stand measurement and control for mechanical and electromechanical components
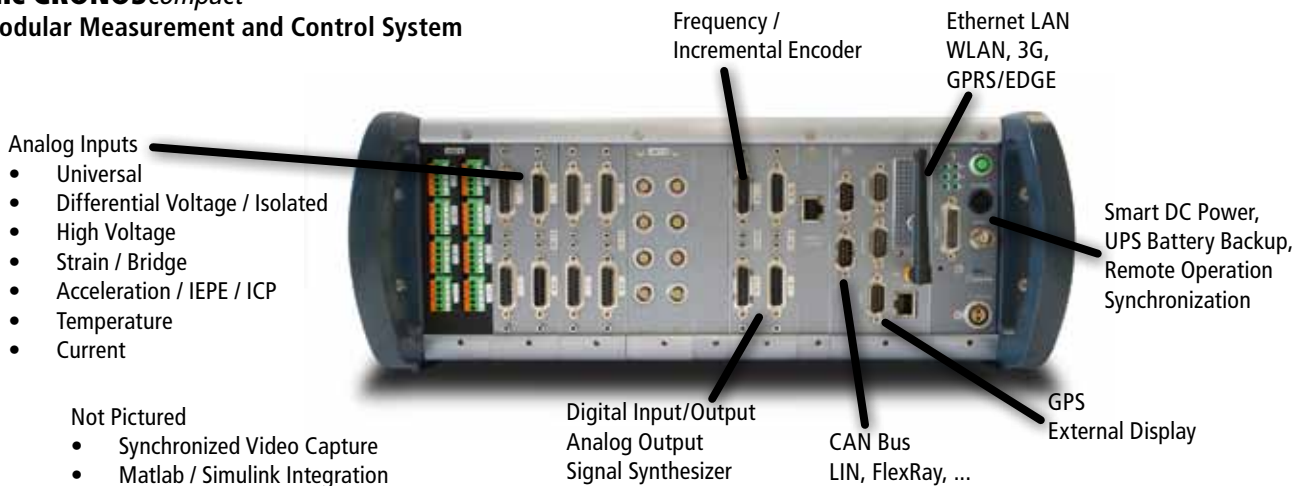

Railway systems and vehicles, e.g. track load surveying and dynamic measurements

Simultaneous recording and processing of signals from multiple subsystems

imc CRONOS_compact_ –
Modular Measurement and Control System

Frequency / Incremental Encoder

Ethernet LAN WLAN, 3G, GPRS/EDGE

Analog Inputs
- Universal
- Differential Voltage / Isolated
- High Voltage
- Strain / Bridge
- Acceleration / IEPE / ICP
- Temperature
- Current

Smart DC Power, UPS Battery Backup, Remote Operation Synchronization

Not Pictured
- Synchronized Video Capture
- Matlab / Simulink Integration

Digital Input/Output
Analog Output
Signal Synthesizer

CAN Bus
LIN, FlexRay, ...

GPS
External Display

EXTENSIVE FUNCTION LIBRARY: ONLINE FAMOS

- Signal Arithmetic (+, -, *, /, ...)
- Data Reduction
- Event Driven Calculations
- FFT & Spectral Analysis
- Digital Filters

- Statistics
- Class Counting / Rainflow
- Strain Gauge and Rosettes
- Closed Loop Synchronous Control
- Target Value / Open Loop Control

- Field Bus Simulation
- Electromechanical System Simulation
- Analysis of Rotating Machniery
- Power Measurements (mechanical and 1-, 2-, 3-phase electromotor/generator)

MOBILE BLACK-BOX & PC INDEPENDENT

- PC-less Data Logging
- Utilize pre-configured experiments
- Intelligent power adapter with UPS
- Optional: Lithium-ion battery
- Optional: Extended Environmental (-40° to +85°C, 0 to 100%RH)*
- Shock and vibration rated

*Condensation Allowed

LIVE DISPLAY OF SIGNALS AND RESULTS

- Freely defined display styles: colors, line type, stacking order, etc.
- 2D-, 3D-display, color maps, bar graphs, Waterfall, single values and much more.
- Automatic logbook records together with measured data in one display
- Zooming and navigation within data

TEST REPORTS - FAST AND PROFESSIONAL

- Drag & Drop data to show waveforms and tables of results
- Text, pictures and visual elements such as lines, arrows etc.
- Multi-page report templates
- Automated report updating
- Export as WMF, JPG, BMP, PNG, PDF

imcStudio - Testing Your Way

Once upon a time, running a test meant turning a few knobs, and watching a couple of gauges. Test Reports were simple. Software tools came along giving us more features, but at the cost of exponentially increasing complexity.

Take back control! **imcStudio** offers a comprehensive solution which relieves you from complex programming, while providing a quick and easily customizable user experience, fully integrated into **CRONOS**compact.

Whether you are a development engineer gathering your own data in the field, a test engineer creating a multi-user test cell operator interface, or an engineering manager responsible for enterprise level measurement and control strategy, **imc** provides a cross-application, multi-use & balanced solution all under one roof: **imcStudio**.
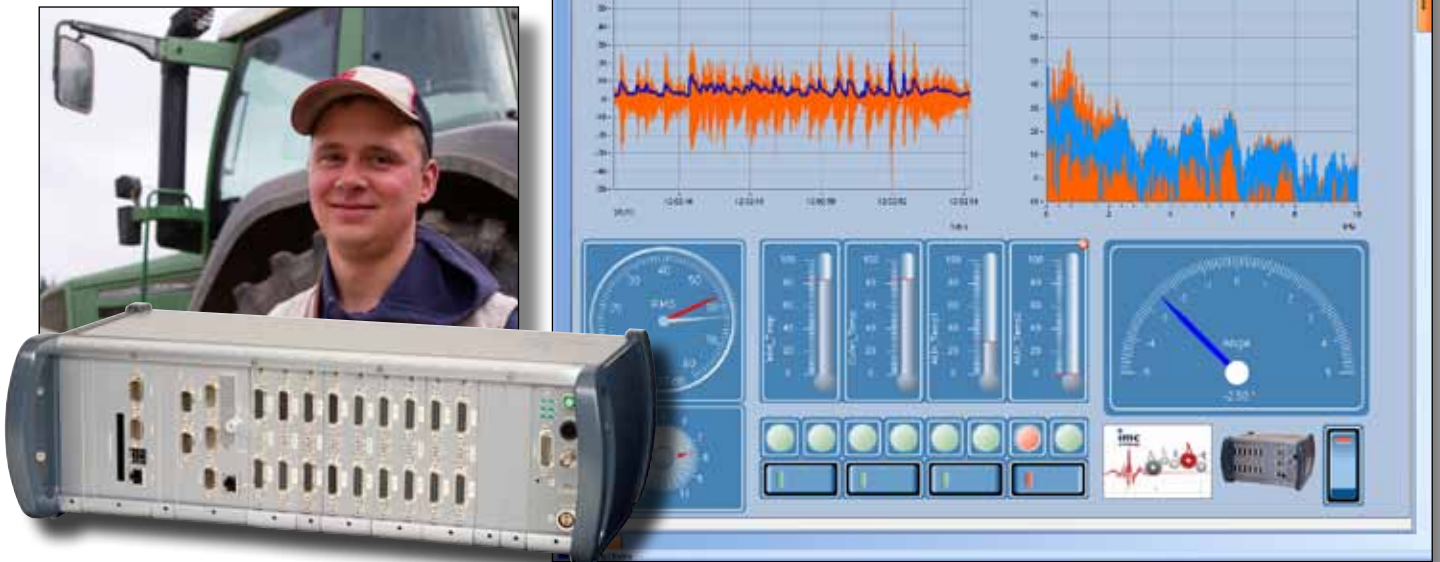
Additional information: **www.imc-berlin.de/en/cronoscompact**

HOTLINE

Questions on Setup and Operation, Repairs, Updates, Calibrations, and System Upgrades

APPLICATIONS

Project Consultation, Development Planning, Application Support, Test Stations, Integration and Custom Hardware and Software Solutions

TRAINING

General and Special Topic Product Training and Seminars

SALES

Application Consultation, Product Configuration, Proposals and Quotations

INTERNATIONAL CONTACTS

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