

imc CANSASfit

clickable • small • temperature resistant

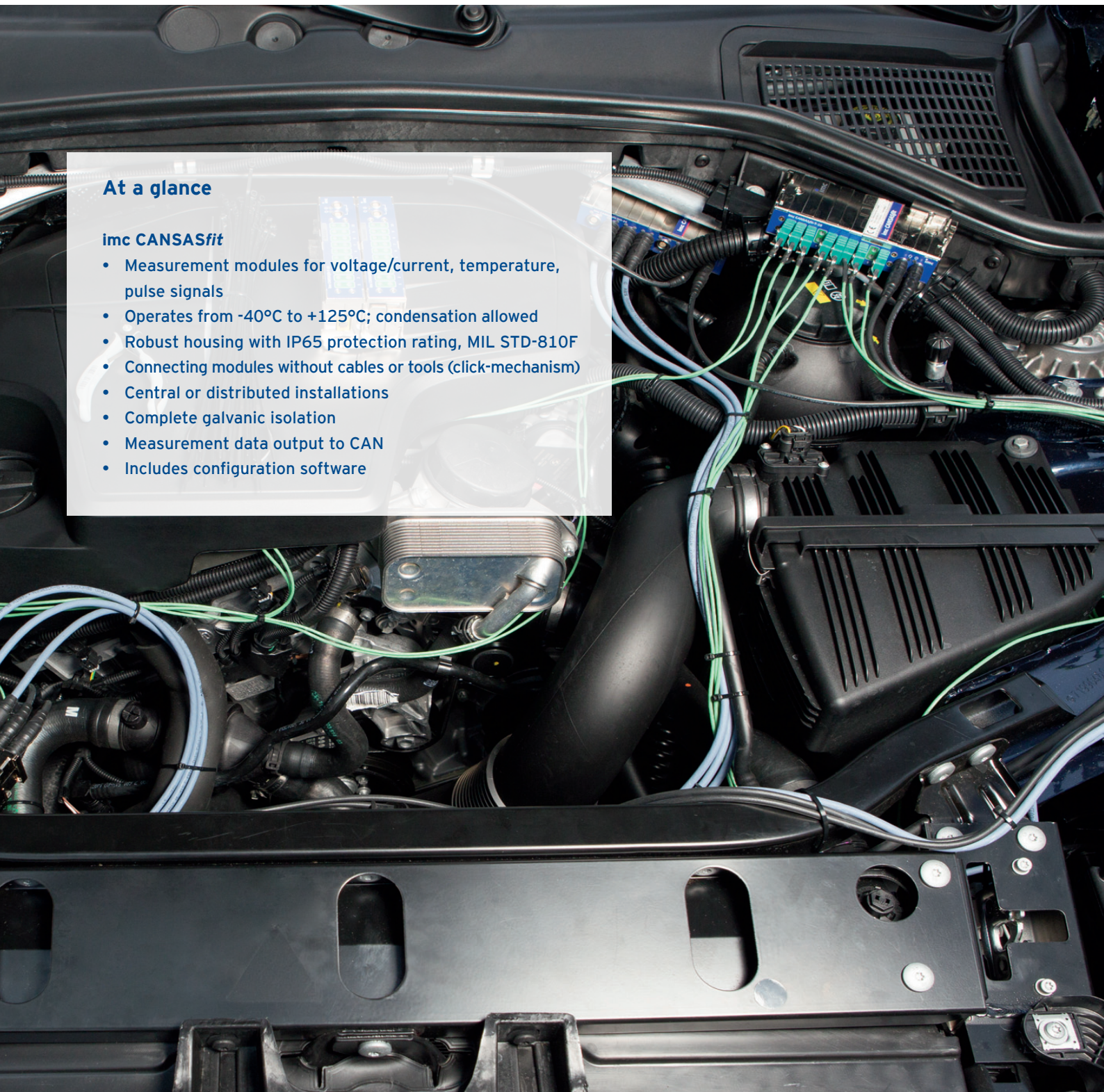


Robust measurement modules for mobile applications

At a glance

imc CANSASfit

- Measurement modules for voltage/current, temperature, pulse signals
- Operates from -40°C to +125°C; condensation allowed
- Robust housing with IP65 protection rating, MIL STD-810F
- Connecting modules without cables or tools (click-mechanism)
- Central or distributed installations
- Complete galvanic isolation
- Measurement data output to CAN
- Includes configuration software



Productive testing: road trials

Smart measurement modules for mobile applications

Measurement systems for the automobile industry must be robust and compact because the operating environments, e.g., in the engine compartment, can be hot and crowded. The new imc CANSAS*fit* series works reliably from -40° to $+125^{\circ}\text{C}$, is rated at IP65 and due to its small design, can be placed almost anywhere.

The modules allow for direct connection to all typical sensors such as voltage, current, temperature, rpm, displacement and velocity. The digitized measurement signals are output as CAN messages and can be read or recorded by any measurement, automation or control system with a CAN interface.

Click-mechanism for more comfort

By means of the imc click-mechanism, imc CANSAS*fit* modules allow for a quick connection: both mechanically and electrically. Thus, the user can simply click modules together to create blocks. Wiring between the modules is not necessary.

Data logger to supplement imc CANSAS modules

These measurement modules are perfectly complemented by an imc data logger - such as the imc CRONOS*compact* or imc BUSDAQ. In ECU development and testing, they provide for acquisition and real-time processing of measurement information from vehicle and field buses.



Voltage



Current 20mA



Temperature



RTD/NTC

Pulse
counterDigital input/
output

Productive testing and digitalization with imc CANSASfit

CAN-based systems

- For vehicle testing, test stands and laboratory use
- Distributed and granulated topologies

Mechanics

- IP65 protection rating for tough environments
- Extreme temperature range: -40°C to +125°C
- Power supply and CAN: LEMO.0B (5-pin),
I/O: LEMO.0B or LEMO.1B (6-pin)

Compact design

- L138 x W31 x H53 mm
- Minimal module size allows for placement in crowded spaces
- Multiple mounting options: Click connect to blocks.
Integrated mounting holes (e.g., for cable ties)
- Die-cast aluminum housing

High-precision analog inputs

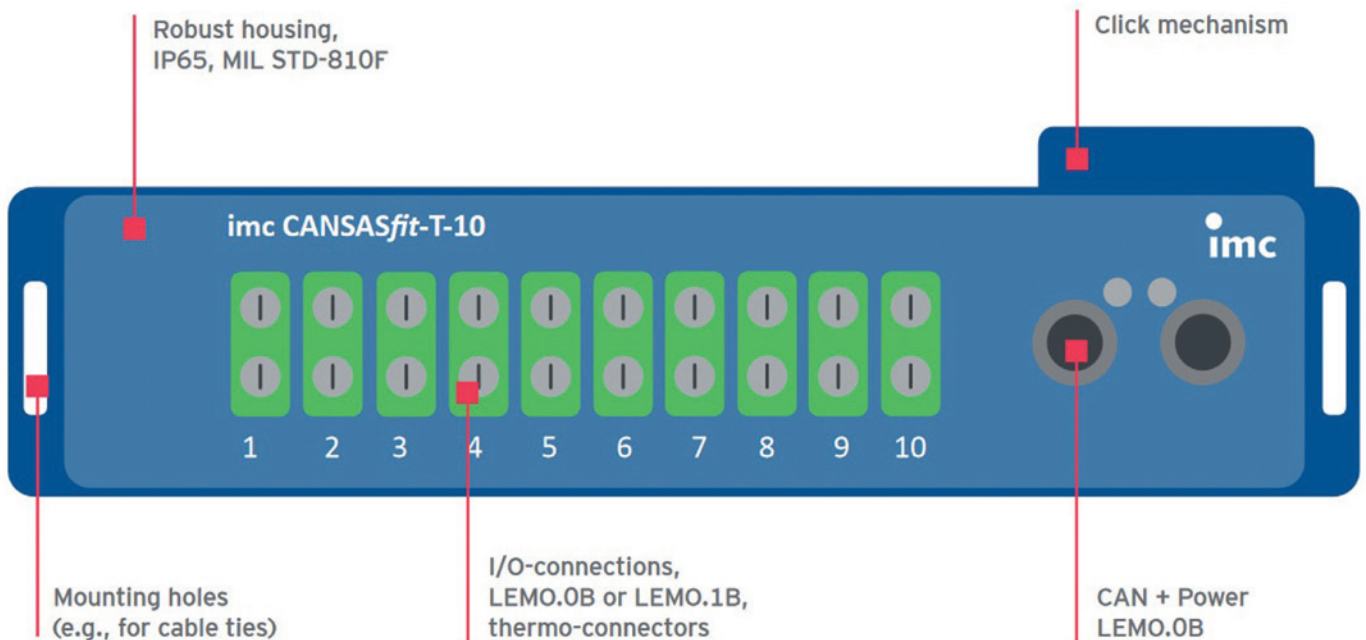
- Individually converted: 24 bit sigma-delta ADCs
- Fully-isolated (channel-to-channel): 300V
- Fully-isolated and individual sensor power supply

Signal processing

- Channel-specific signal filtering incl. automatic anti-aliasing filter
- Status LEDs and cable-break detection

Configuration software

- imc CANSAS software allows measurement module configuration
- Self-start with saved configuration
- Also available: factory pre-configured



In Practice

Fit for endurance testing

Before the first customer vehicle rolls off the assembly line, endurance testing must be carried out to verify the quality of the entire vehicle. The car's life expectancy is tested by accelerated simulation under the harshest conditions. Fleets are tested for thousands of kilometers on country roads, freeways and city environments. With imc CANSAS*fit* measurement modules, you are always ready to handle such testing requirements. Whether in the engine compartment or behind a side panel: due to their compact design, they can be placed almost anywhere. Furthermore, in combination with a data logger, all sensor data, control information and GPS data can be autonomously acquired.



Fit for climate / HVAC testing

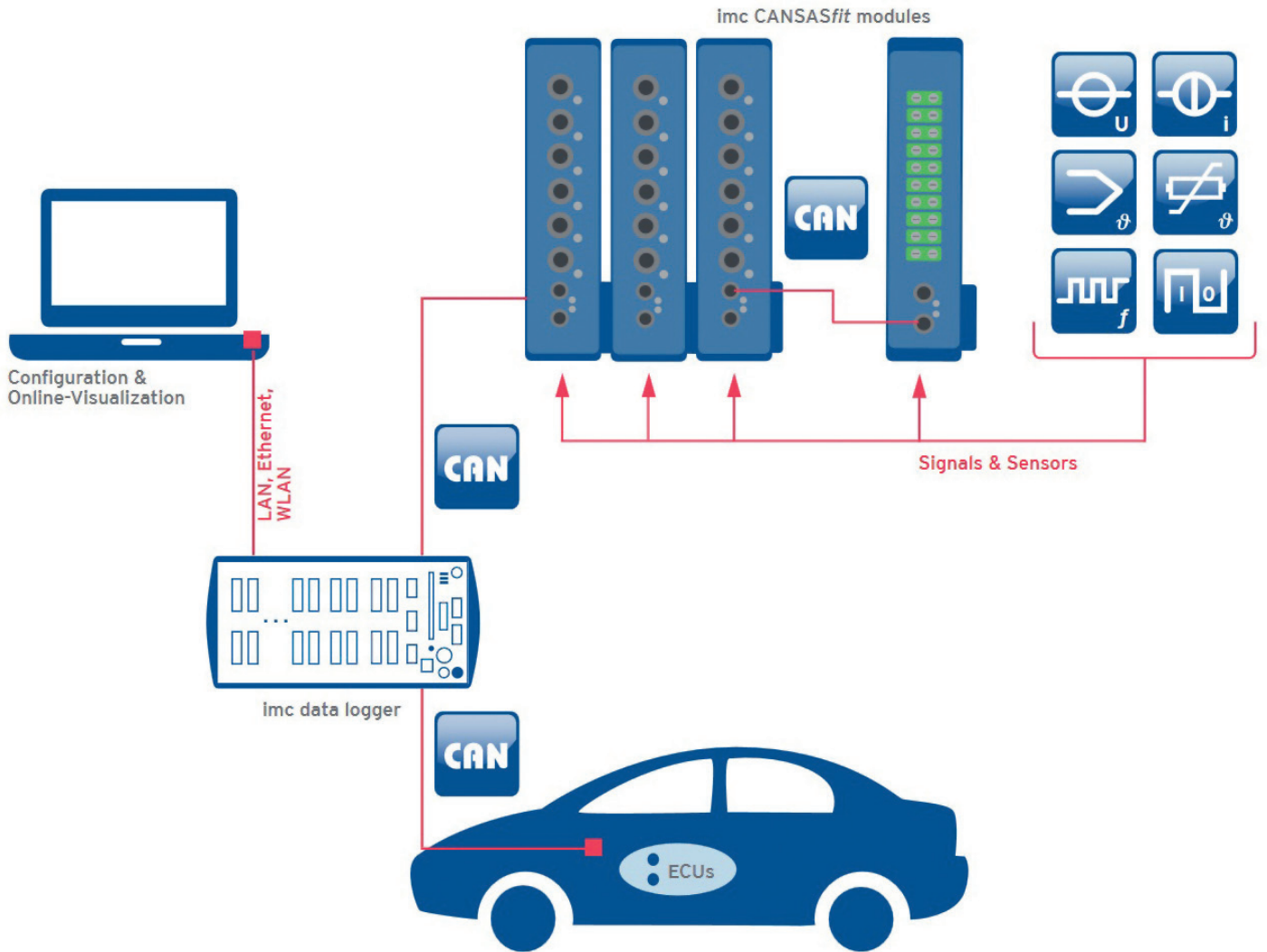
Whether in a climate chamber, in the desert or in the arctic, imc CANSAS*fit* can accurately take measurements in temperatures from -40°C to $+125^{\circ}\text{C}$. The sealed housing design protects the module from condensation and corrosion. Even under harsh environmental conditions, the modules operate reliably: imc CANSAS*fit* has an IP65 protection rating and is resistant to dirt, water spray, vibration and shocks. In addition, the compact design makes the modules ideal for the engine compartment.



Fit for distributed tests in plants and machinery

In large installations and machines, such as wind turbines, the measuring points are often far apart. In this type of setting, a spatially-distributed measurement system has clear advantages. Taking the measurements close to the sensor reduces the amount of wiring and minimizes the chance of electrical interference. As a result, the quality of the measurement results is increased, as well as saving time and money. Combining the imc CANSAS*fit* with an imc data logger lets you create multi-channel measurement networks, even over long distances.





imc CANSASfit Details

Functions and specifications

Analog Modules

module name CANFT	size	connector	speed		isolation			modes				voltage mode		supply					
	channels	connector options	max. sampling rate (per channel)	signal bandwidth (~3dB)	galvanically isolated	per channel	isolation voltage	voltage	current (20mA)	RTD (PT100... PT1000)	NTC, resistance (5 ohm ... 100 kOhm)	thermo couple	sensor supply	min. voltage range (mV)	max. voltage range (V)	min. supply	max. supply	output power per channel	individually isolated
analog modules																			
T-10	10	Thermo (Uni)	100 Hz	20 Hz	●	●	300 V					●							
UTI-6	6	6 x LEMO	1000 Hz	400 Hz	●	●	300 V	●	●	●	●	●	25 mV	60V	±2,5V	±15 V	0,4 W	●	

Digital Modules

module name CANFT	size	connector	speed		isolation			modes	conditioning
	channels	connector options	max. sampling rate (per channel)	signal bandwidth (~3dB)	galvanically isolated	isolated groups	isolation voltage		
pulse counter									
ENC-6	6	6 x LEMO	1000 Hz	2 Mhz	●	2	300 V	displacement, angle, time, frequency, speed, RPM	differential inputs, filter, adjustable thresholds
digital I/O									
DI-16	16	4 x LEMO	1000 Hz		●	4	300 V	Port / Bits	24V / 5V Logic
DO-16	16	4 x LEMO	1000 Hz		●	4	300 V	Port / Bits	24V / 5V HighSide / LowSide / TotemPole





imc Test & Measurement GmbH

Voltastraße 5
13355 Berlin
Germany

Tel.: +49 (0)30 - 46 70 90 0
Fax: +49 (0)30 - 463 15 76
hotline@imc-tm.de
www.imc-tm.com