xProLog

Micro-Sized GPS/CAN Logger

xpro®

High Performance Automotive Test Systems

xpro© Data-Logger

micro-sized for CAN, GPS, IMU, Analogue - modular expandable

xProLog - powerful data logger sqeezed into a tiny box !

Despite its small size, xProLog is a fully featured and very comprehensive measurement system for recording CAN data and data from the internal 6D inertial sensor and altimeter as well as from the internal high-sensivity 25 Hz GPS receiver.

xProLog is the ideal tool for numerous measurement applications where a fast installation, uncomplicated operation and at the same time the compact size are important.

xProLog has been developed for a wide range of test applications

- Quick look measurements - quick information for on-going CAN bus activities
- Easy evaluation of driving behavior / driving dynamics of a vehicle
- Long-term measurements for durability tests
- Tachograph applications
- Acquisition of data from SUCHY® signal conditioning boxes like e.g. xProTherm32 etc.
- Acquisition of general CAN sources
- Depending on installed option: direct logging of up to 4 analog channels or from a second CAN Bus

Data are reliably written by xProLog to an SD-Card. Flash cards up to 32 GByte are supported, whereby a single file can be up to 4 GByte in size - enough for even very extensive measurement tasks. An intelligent file management creates a separate file for each measurement day and thus ensures a clean structuring of the data.

During the development of xProLog, we paid special attention to the usability in e-Vehicles and consistently implemented a system in lowest-power technology. Current consumption of xProLog is only approx. 150 mA @ 12V, which means that xProLog can be operated for a whole day even with a small sized add-on battery.

Moreover - a clever design protects the file system against data loss in case of a sudden power loss, especially when starting the vehicle engine.

Full spectrum of measurement inputs and signal outputs

- CAN bus interface 2.0B, hardware CAN-FD ready with separate galvanic isolation
- Expandable with an interface for a second CAN bus
- Expandable with 4 high-resolution 24-Bit analog inputs and +/-20 volt input range
- GPS receiver with 25 Hz data rate, highest sensitivity and GLONASS/GALIEO support
- An accurate, high-resolution altimeter
- A 6-axis inertial sensor for acceleration and gyro data with compensation of mounting position
- USB interface for Firmware-Upgrades and Real-Time data transfer to i.e. Laptop
- COM-Port to connect SUCHY® driver displays
- 1MHz counter input for different applications
- External trigger input and marker function
- Output of speed as analog and frequency signal
- 1 PPS accurate 1Hz time pulse for synchronization of multiple systems
- Precision real time clock
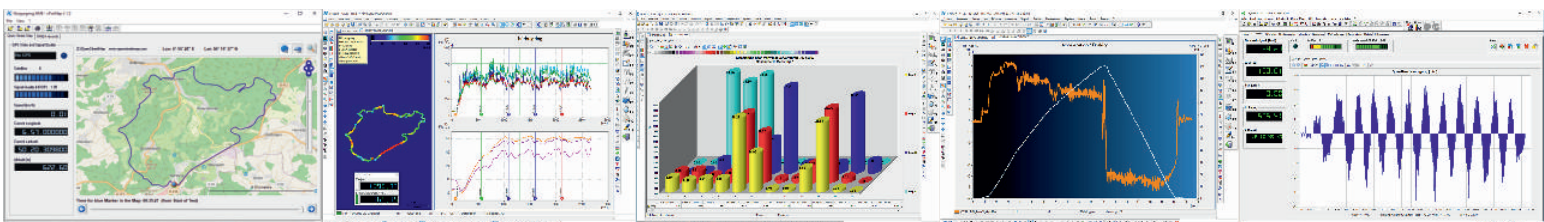
Your compact data logger for all tasks: xProLog

Suchy Data Systems GmbH.
Am Steinacker 29
85253 Erdweg / Germany
+49 8138 69 74 240

www.suchy-data-systems.com

xpro© Data-Logger

micro-sized for CAN, GPS, IMU, Analogue - modular expandable

Suchy Data Systems

CAN-Bus Handling of xpro Log

With the software tool provided for the system, acquisition of CAN bus data is extremely easy. Even a large number of channels can be activated within shortest time. Settings can be taken from .dbc files or alternatively from master files.

As an extra, we already integrated the 120 Ohm terminating resistor for the CAN bus. This terminating resistor is programmable and can be activated by software – no more cumbersome soldering of a resistor into an external socket. The status "Termination on/off" is automatically stored.

Up to 500 CAN channels with up to 100 Hz can be sampled, plus the data from GPS and the internal sensors. For storage space optimization, 4 different sampling rates are supported. So even extremely long and complex sessions can be recorded on a 32 GByte SD card.

In our systems the CAN bus interface is generally properly protected against EMI overvoltage spikes and filtered to reduce electromagnetic noise.

The CAN bus interface is already CAN-FD capable. The software interface of course has to be adapted to the actual data format our customers are using.

No matter if you would like to record data from the vehicle CAN or if you need to record a large number of temperature channels with e.g. xProTherm32 - with xProLog this is done in no time and at a surprisingly low price.

xProLog with perfect power management

- Consequently designed in low power technology – thus optimized for e-Vehicles
- Extra wide Supply voltage range 9 ... 32 VDC
- Dual supply mode: accepts supply sources directly from vehicle and/or from USB port (e.g. laptop)
- Careful galvanic isolation between vehicle power and processor level
- Reverse polarity protection and non-destructive electronic fuse
- Battery-free power back-up with automatic data backup in case of a sudden power failure
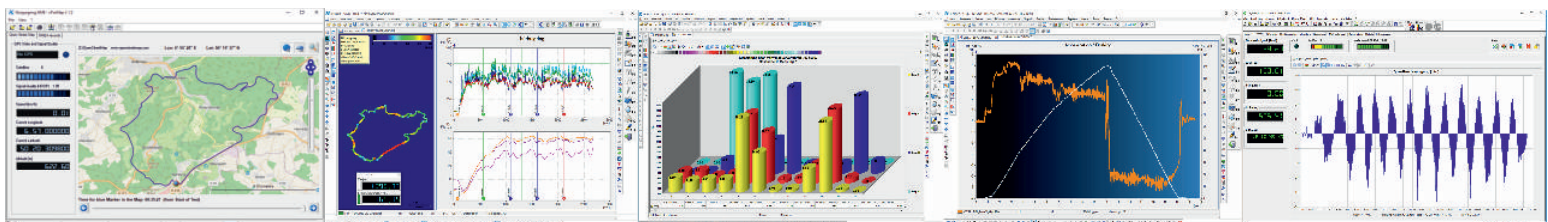
Your compact data logger for all tasks: xProLog

Suchy Data Systems GmbH.
Am Steinacker 29
85253 Erdweg / Germany
+49 8138 69 74 240

www.suchy-data-systems.com

xpro© Data-Logger

micro-sized for CAN, GPS, IMU, Analogue - modular expandable

xProLog Add-Ons

Make your xProLog even more powerful – by installing Piggy-Pack Modules

Sensational for a system of this size - xProLog can be upgraded with additional functions by inserting one oft the available expansion modules.

- Analog module with 4 channels, +/-20 V input range, 24-bit technology
- Module for a second independent CAN bus
- Improved Inertial Sensor with low drift and low noise feature
- Further function modules will follow

Piggy-Pack Extension "Analog Module"

The analog module opens direct access for xProLog to the high-resolution acquisition of analog data.

- Measurement of analog data in latest 24-bit-technology
- Wide Input range +/- 20V , 100 Hz data rate (more on request)
- 4 input channels
- Inputs designed in "differential" Technology – non ground referenced

Do you need a specific interface feature ? We can build it for you !

Piggy-Pack Extension Module "2nd CAN-Bus"

You need access to a second CAN bus?

For instance when logging vehicle CAN plus an additional instrumentation CAN ?

Then this Piggy-Pack module is the easy to install solution !

This module also doubles the number of CAN channels that can be acquired to a record-breaking 1000 channels for a system of this size.

Also the extension CAN is already prepared for CAN-FD.

System Expansion via Splitter Boxes

Additional Splitter boxes facilitate access to the CAN and analogue Signals

- Splitter Box "CAN" provides a CAN hub with several CAN sockets plus separate socket to connect a display unit
- Redirects the CAN connector of the 2nd extension CAN to the front panel
- Splitter-Box "Analog" provides 4 standard BNC sockets for incoming analogue signals
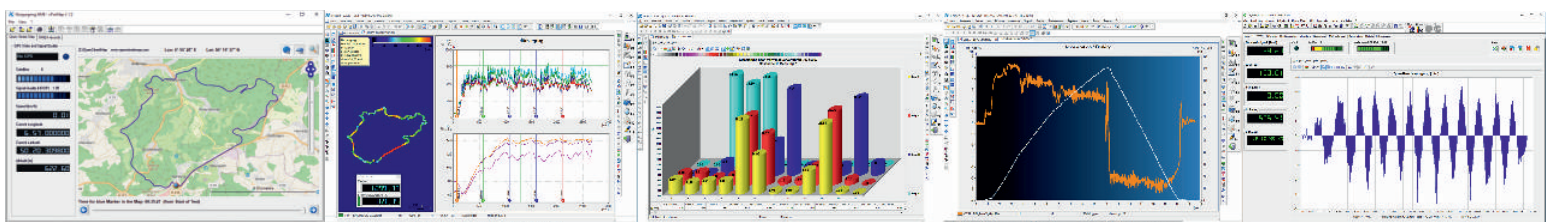
Your compact data logger for all tasks: xProLog

Suchy Data Systems GmbH.
Am Steinacker 29
85253 Erdweg / Germany
+49 8138 69 74 240

www.suchy-data-systems.com

xpro© Data-Logger

micro-sized for CAN, GPS, IMU, Analogue - modular expandable

Rack-System for xProLog

With our super compact slide-in rack xProLog becomes a system. All system members are elegantly and safely stored. You will be surprised about the total size: it is only 12 x 9 x 9 cm! The rack-system also reduces necessary cable lengths.

We have developed these accessories especially for motorcycle applications. The complete system can be easily stored in the bike's pockets.

The rack concept also reduces assembly times considerably, as essential connections can be pre-installed within the rack - eliminating the need for additional external cables.


Add-On Driver Display

Last but not least – there is also a perfectly matching driver display for xProLog and also for xProGPS_nano.

This new model has a display in so-called transflective technology, which means it can perfectly be used even in brightest sunlight. Using the display at night or driving in a tunnel ? No problem - a backlight is included as a standard.

With 8 function keys you get full control of xProLog:

- Selection of a measurement file
- Start / Stop measurement
- Setting of markers
- Choose which data from which input to be displayed (multiple screens supported)
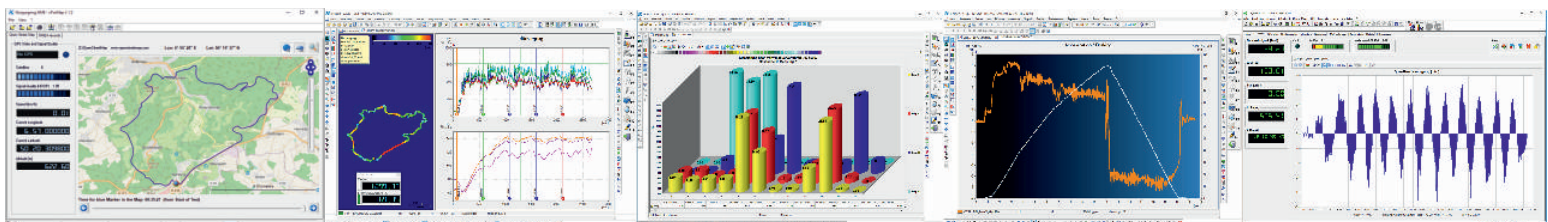
Your compact data logger for all tasks: xProLog

Suchy Data Systems GmbH.
Am Steinacker 29
85253 Erdweg / Germany
+49 8138 69 74 240

www.suchy-data-systems.com

xpro© Data-Logger

micro-sized for CAN, GPS, IMU, Analogue - modular expandable

Suchy Data Systems

Extensive Software Package

xProLog is supported by a great software package running under Microsoft Windows.

The software tool xProWin allows both the initialization of measurement jobs plus their evaluation by different graphics, spreadsheets, etc..

To communicate with other tools of another brand, data of xProLog can be exported in .CSV format.

There is also a geographic map tool to display routes travelled. This tool is based on Open Street Map. Alternatively NMEA data even can be exported to Google-Earth (KML file format).

The firmware which runs xProLog is extremely easy to use. It provides a wide range of very useful features.

Here is an example to demonstrate how extensively we solve the topic "Trigger":

- Manual start via push button on front panel
- Auto-Start at Power-On
- Start by trigger event on any measuring channel
- Start via external trigger, e.g. light barrier
- Start / stop by time (option)
- Post-trigger function
- Marker function for special events (time-stamp)

xProLog - a compact instrumentation system with extensive functions available at a top price !
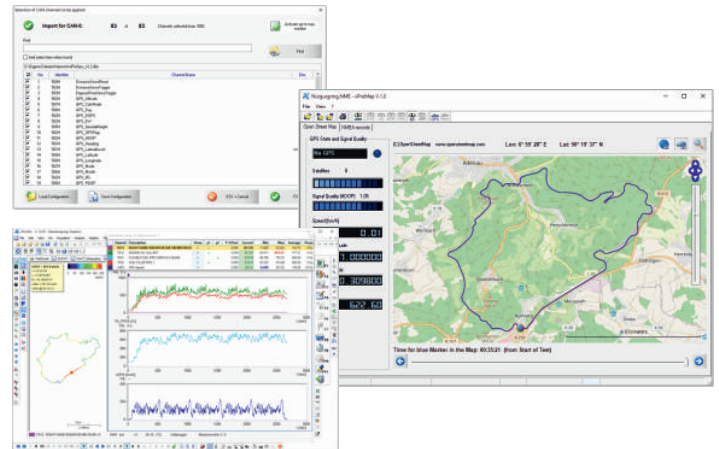
Technical data

- Dimensions xProLog: 120 x 83 x 23
- Dimensions Rack: 120 x 90 x 87 mm
- Weight xProLog: 250 gr
- Weight Rack with 3 units: 830 gr
- Power supply: 9 ... 32 VDC
- Temperature range logger: –40 ... +80°C
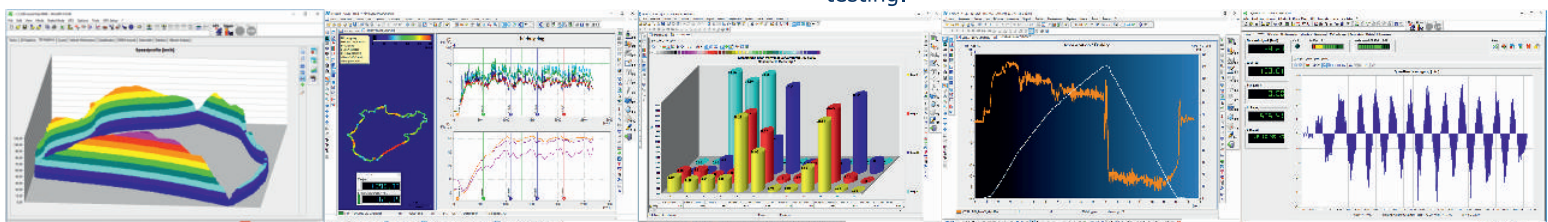- Temperature range display: -20 ... +70°C

CAN bus interface

- Supports CAN 2.0 B
- Data rate up to 1 Mbit, programmable
- 11-bit and 29-bit identifier
- CAN-FD prepared

Specification GPS

- 25 Hz data rate
- Simultaneous access to US-GPS, GLONASS, Beidou and Galileo
- Sensitivity -165 dbm

Interested ? We will be glad to send you an evaluation unit for testing.

Your compact data logger for all tasks: xProLog

Suchy Data Systems GmbH.
Am Steinacker 29
85253 Erdweg / Germany
+49 8138 69 74 240

www.suchy-data-systems.com