

Suchy Data Systems

# xProAnalog8

Accessing the Analogue World by CAN  
8 Channel High-Resolution 24 Bit / +/-20V Input Range



- 8 protected Analogue Input Channels
- High-Resolution 24-Bit Converter Technology
- Flexible CAN 2.0B Interface / CAN-FD ready
- Built in CAN-Hub for Chaining multiple Modules
- Sensor Excitation Voltage 5 V and 12 V on each channel
- Status LED on each Channel plus Live CAN-Status
- Compact Size and robust Alloy Housing

xpro<sup>®</sup>

High Performance Automotive Test Systems

**XPRO\_ANALOG8 - ACCESSING THE ANALOGUE WORLD BY CAN**

**xProAnalog8** converts analogue signals into CAN-Bus messages.

**High Resolution Input stage**

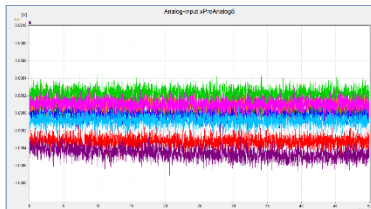
**xProAnalog8** comes with 8 input channels and samples data with multiple high-resolution 24-Bit-Converters at a standard rate of 100 Hz.

The input voltage range is +/-20 Volts, which covers access to all standard voltages occurring in a 12V / 13.8 Volts powered vehicle.

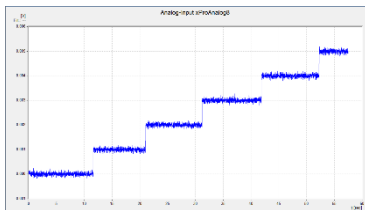
All inputs are of *differential type*, which means they are not directly GND related. This is important when issues due to ground loops can occur in a test application.

The 24-Bit converter provides a Bit-resolution of appx. 40 µVolts. Stable results can be expected at around 1 mV, which is amazing for an +/- 20 V input range.

Noise level appx 0.1 mVolts:



Steps of 1 mVolt:



**Excitation Voltages 5V / 12V for Channel**

Analogue Input signals are attached to the system by robust Lemos connectors.

All input sockets provide two stabilised sensor excitation voltages of 5 V and 12.0 VDC. A max.

current of 10mA per channel is sufficient to supply low power sensors or potentiometers.

**Flexible CAN-Interface**

Based on the scaling / ID-instructions of the included dbc-file the converted analogue information of each channel is sent out to CAN.

Multiple xProAnalog8 modules can be chained to create systems with much more input channels.



Both CAN-ID-Base-Address and 120 Ohm Bus Termination resistor can be programmed either by DIP-Switch or by software.

xProAnalog8 is CAN-FD ready on hardware side. Software adaptation has to be discussed with end-user due to many dialects.

**Rock-Solid Power-Supply**

For maximum signal quality and system reliability the analogue input circuitry of **xProAnalog8** is galvanically isolated from the external power supply.

The extra wide Power-Supply range is 9V ... 32 VDC so xProAnalog8 can also directly be powered from board supplies of commercial trucks etc.

Of course power supply is protected against wrong polarity, over-current, EMI influences.

**Technical Data**

- Analogue Input Voltage Range            +/-20 V
- Max. Resolution                             40µV / bit
- Output Data Rate                            100 Hz / 1kHz optional
- Sensor Excitation Voltages               5 V / 12.0 V @ 10mA
- Power supply                                 9 ... 32 VDC @ 65 mA
- Physical Dimensions                       117 \* 39 \* 35 mm
- Weight                                         appx. 200 g
- Temperature Range                         -40 to +80 C