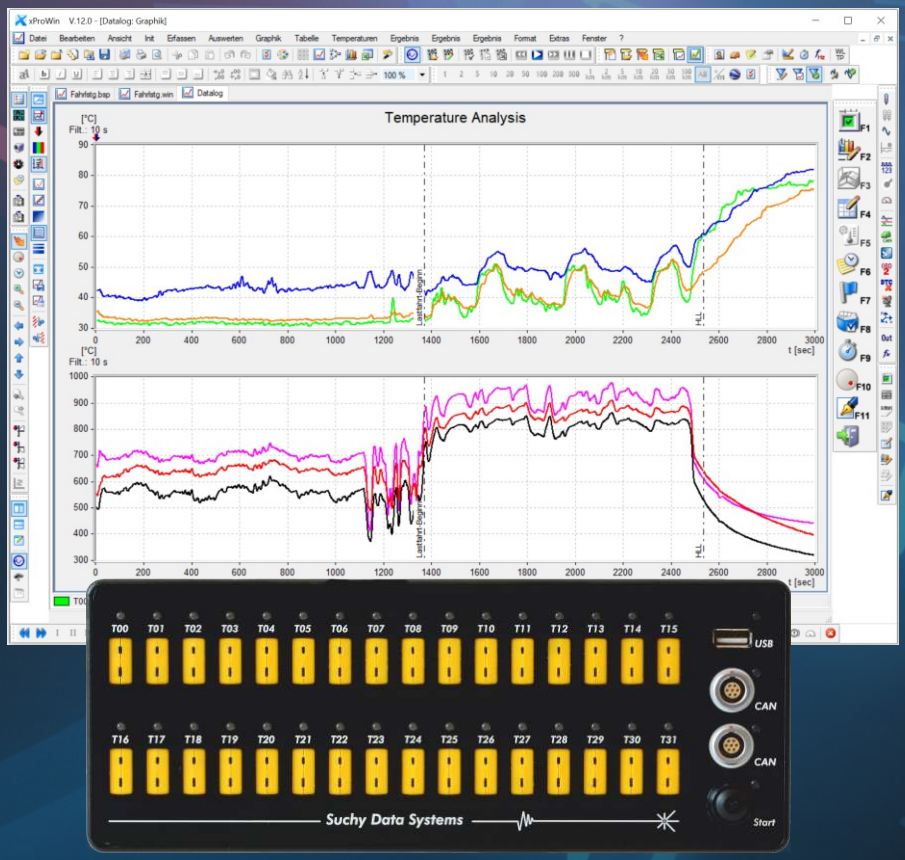
Suchy Data Systems

# xproThermo32

## measuring 32 Thermocouples in high Precision


**galvanic Isolation, Status LEDs, 1/100 C° Resolution, CAN-Hub**

**clever Testing with xpro©**

# xproThermo32

## expandable 32 Channel Thermocouple Signal Conditioning

### be a winner in the Multi Channel Race !

#### 32 Measure Thermocouples with a compact Unit

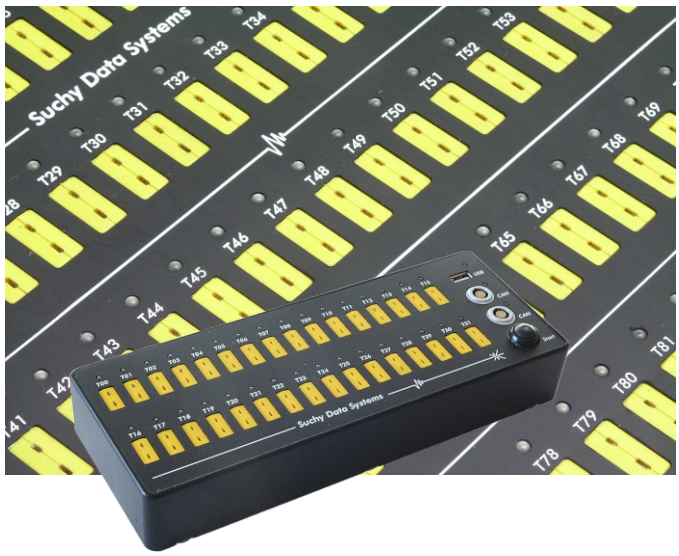
During the development phase of a vehicle, a wide variety of thermal load profiles must be tested and evaluated. It must be ensured that all components remain within the specified range.

For reasons of cost optimization it has been widely decided to measure all points of interest in one go and not just individual units. As a result it becomes necessary to install even hundreds of thermal sensors to cover all hot spots or all air flow areas.

Conventional temperature converters usually provide only 8 measuring channels. Thus many of eight-channel modules would have to be installed and wired. Unfortunately in many cases this is impossible due to limited space.

To overcome this problem we have developed **xproThermo32** - a signal conditioning unit that provides 32 thermal channels in a single compact housing.

If even more channels are required - additional **xproThermo32** modules can be used to create a comprehensive measuring chain even for hundreds of individual sensors.




#### CAN Communication

Measured temperatures are sent to a master data logger via CAN bus. The setup for this can be carried out using the .dbc file supplied.

The default setting of the CAN bus is CAN 2.0B with 500kBit/s. CAN-FD is already prepared and can be adapted according to customer requirements.

To make chaining of several modules simple and effective a CAN-Hub is provided as a standard.

Firmware updates can be programmed with our xproUFL tool via the USB interface.

#### Details for Technicians

**xproThermo32** converts the thermoelectric voltages in the µVolt range with a resolution of 24 bits. The signals are pre-amplified and then smoothed using a complex filter algorithm.

Applying the latest semiconductor technologies ensures optimum noise behavior, low drift and improved accuracy.

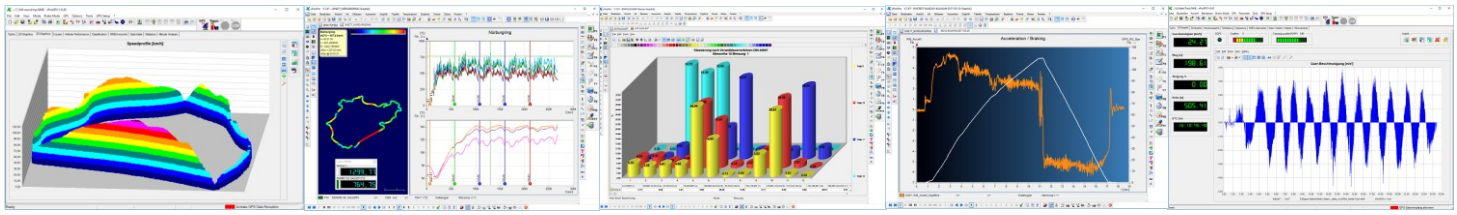
Each measuring channel has its own precise cold junction compensation and is separately galvanically isolated with its own power supply.

**xproThermo32** automatically detects a defective or unplugged sensor. The health status is indicated by a 2-color LED. A quick glance at the front panel is all it takes to know whether your system is working properly.

The operating voltage of the system provides an extra wide input range of 10 ... 32 VDC. and is protected against reverse polarity and EMI.

#### Technical Facts

- CAN bus 2.0B, CAN-FD prepared
- Thermocouple type K standard, others on request
- Resolution approx. 1/100 °C, accuracy approx. 0.5 C
- 32 channels with channel to channel galvanic isolation
- Status LED for each channel for burn-out detection
- Power supply 10 ... 32 VDC, approx. 200 mA
- Size approx. 250 * 100 * 40 mm Weight approx. 300 g



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