

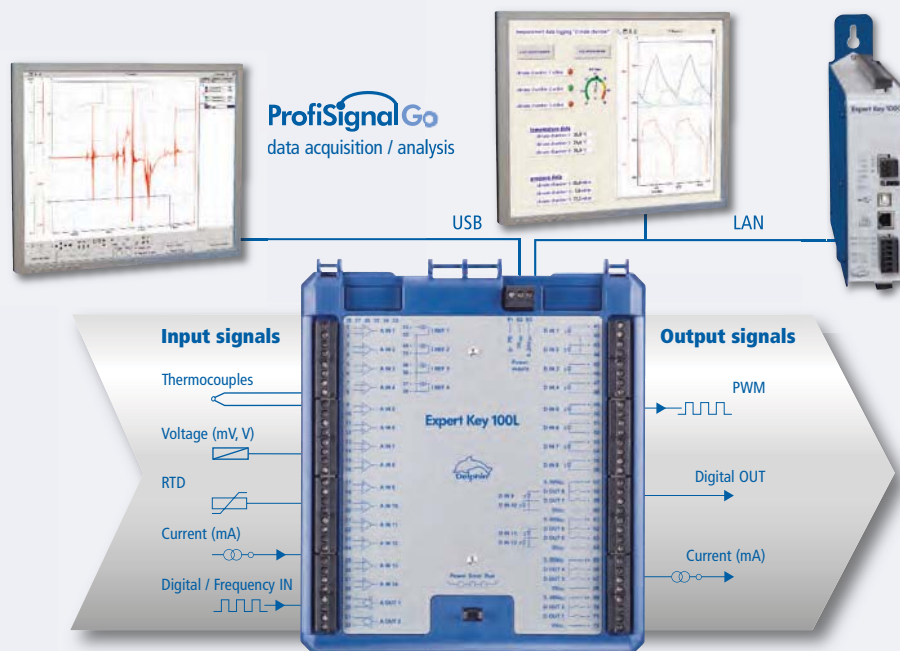
Expert Key – PC-supported measurement

Measurement data acquisition mobile and stationary

Expert Key devices acquire and monitor measurement data and automate experiment and test stand installations.

Expert Key is available in four models: for laboratory (L), industry (C), testing (P) and temperature measurement (T). Expert Key is therefore a universal and quick to deploy data acquisition system for permanent or mobile systems.

Expert Key is a compact device with a wide range of analog and digital inputs / outputs and plug-in terminals. Expert Key has two alternative interfaces: USB and LAN. These enable measurement data to be acquired locally at a PC or, for example, transmitted from a test stand via a company LAN. Expert Key enables fast system set-up and mobile measurement with a laptop and the ProfiSignal Go software. Expert Key is also suitable for permanent installations using cabinet systems.



Product features

- Very cost effective
- Communicates via USB or LAN
- Universal inputs and outputs
- Scalable, even for large applications
- Synchronizing of multiple devices
- Ease of operation
- Drivers for LabVIEW™, Modbus, OPC, DASyLab™ available
- "Made in Germany" quality

Flexible

Expert Key devices are available with a range of channel numbers. Type 100 is equipped with analog and digital inputs and outputs and is therefore highly suited for use within test engineering.

Type 200 has 28 universal inputs and is highly suited for analog data acquisition.



Technical specifications are available on page 48.

Universal connectivity

Differential inputs are used exclusively as input signals. These can be configured individually as mA, mV or V signals and as RTDs or thermocouples. Any sensor can be attached to the terminals which are able to accommodate lines of up to 2,5 mm² in diameter. Integrated signal conditioning enables mA, V measurement data to be converted into the required unit of measurement, e.g., bar, N, %rh etc. In contrast to many low-cost products, Expert Key devices are equipped with full potential isolation.



Expert Key

Type	100	200
Analog inputs (mV, mA, TE, RTD)	14	28
Analog outputs (mA, V)	2	2
Digital inputs (frequency, counter)* ¹	12	1
Digital outputs* ²	8	1

*¹ 4 switchable as digital outputs

*² 4 with PWM function

Expert Key models

Analog input sampling rates achieve 100,000 measurement values per second. Analog output signals can be output to V or mA switchable outputs.

Digital inputs (with counter functions of up to 1 MHz) and digital outputs (with PWM function) with switch capacities of up to 30 W are standard in the 100 version.

Easy configuration and connection

Channels are easy to configure using the powerful ProfiSignal configurator included in the Expert Key delivery. Following drivers to enable integration into the user's existing software systems are available: LabVIEW™, DASyLab™, Diadem™ OPC-Server, Modbus TCP driver for deployment in industrial environments, as well as the OCX driver and .NET programming interfaces.

Expert Key – Models

Expert Key L – for laboratories and service

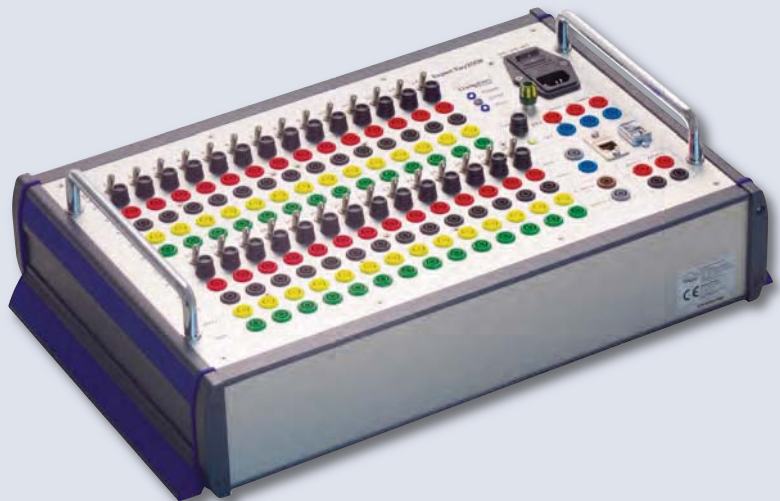
The Expert Key 100L and 200L have a tabletop design. A pop-up lid gives a clear overview of connections. Sensors and actuators are connected via plugs located on the sides. Because of the L model's universal capabilities, it is particularly suited to laboratory, experiment, test and service applications. Supply adapter is included in the delivery.



Expert Key 100L
Expert Key 200L

Expert Key P – for experiments and testing

The Expert Key 100P and 200P have a console-type design. These models are intended for use in testing and laboratory environments. Signals are connected via 4 mm safety lab plugs. Measurement data from sensors can be transmitted to a PC via USB or LAN interfaces. RTD sensors, voltage and current signals are directly connected to any of the analog inputs. ProfiSignal software enables users to generate systems for data acquisition that comply to FDA 21 CFR Part 11.



Expert Key 100P
Expert Key 200P

Expert Key C – for cabinet installation

The Expert Key 100C and 200C are identical to the L models apart from the housings. The housing design enables the devices to be used in cabinets or 19" rack systems.

Expert Key can also be supplied without an housing to enable OEM systems.



Expert Key 100C
Expert Key 200C

Expert Key T – multi-channel temperature measurement

The devices, designed for multi-channel temperature measurement but also suited to temperature measurement and combined high-speed signal acquisition.

The compact Expert Key T devices have console-type housings. They are intended for use in laboratories and test stands as tabletop or wall-mounted devices. The analog and digital inputs and outputs are easy to access and signals and actuators are quick to connect requiring no tools.



Expert Key 100T
Expert Key 200T