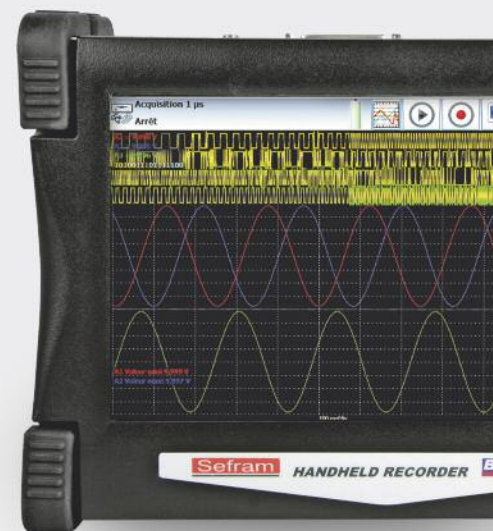
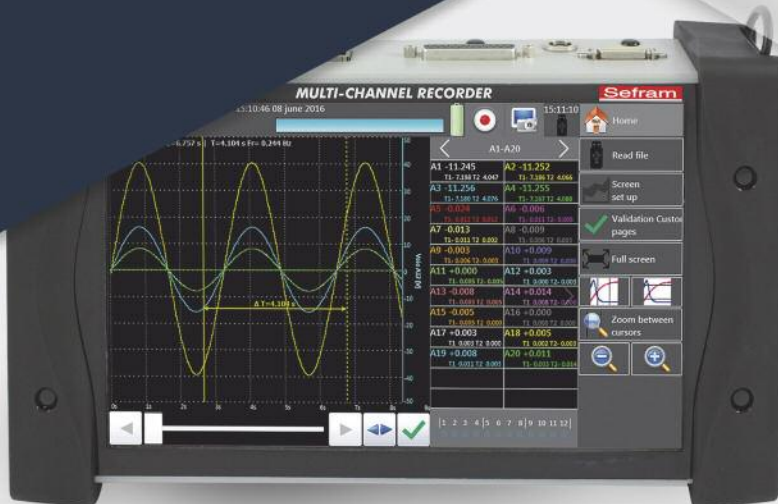
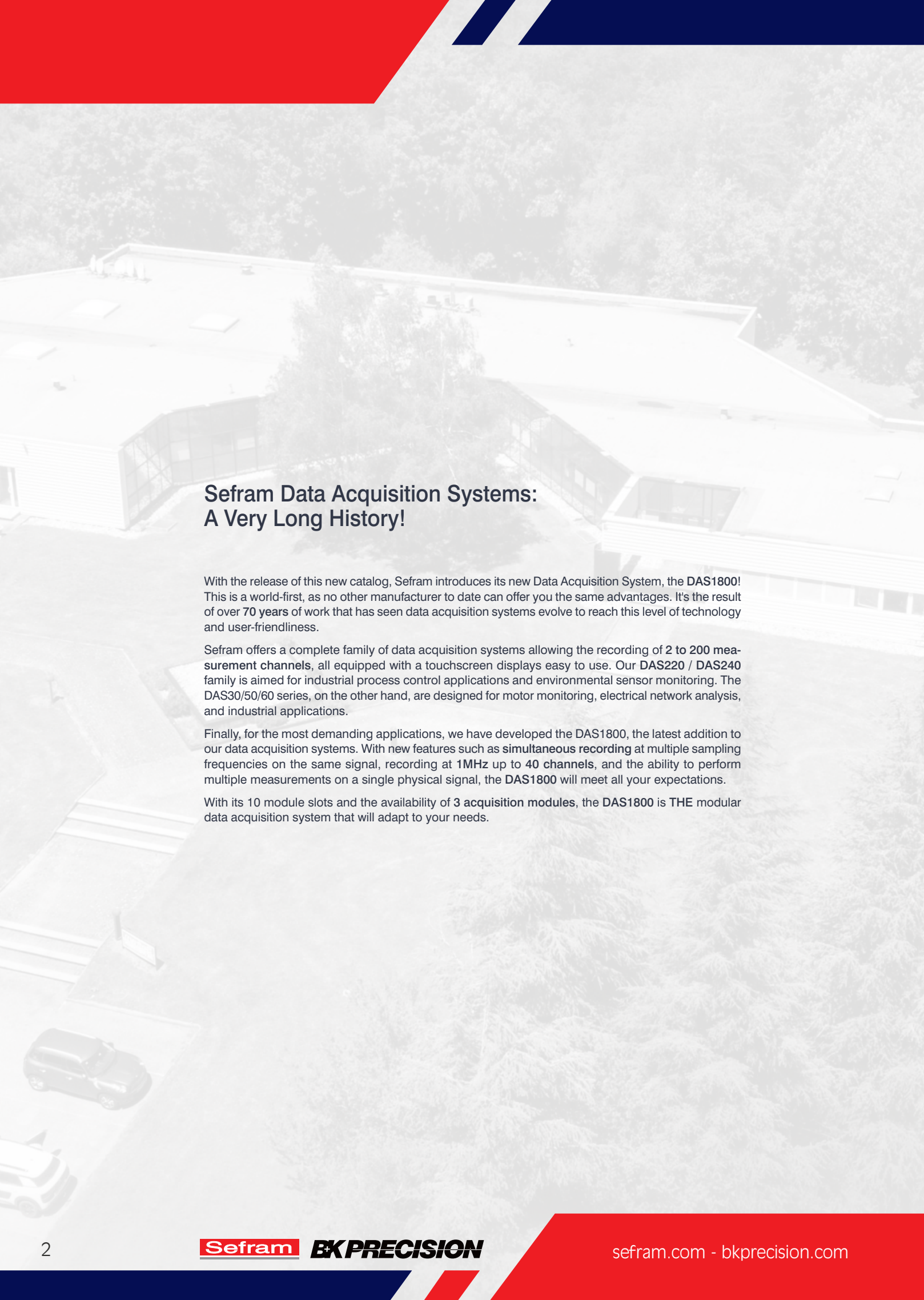


DATA ACQUISITION SYSTEMS





Sefram Data Acquisition Systems: A Very Long History!

With the release of this new catalog, Sefram introduces its new Data Acquisition System, the **DAS1800**! This is a world-first, as no other manufacturer to date can offer you the same advantages. It's the result of over **70 years** of work that has seen data acquisition systems evolve to reach this level of technology and user-friendliness.

Sefram offers a complete family of data acquisition systems allowing the recording of **2 to 200 measurement channels**, all equipped with a touchscreen displays easy to use. Our **DAS220 / DAS240** family is aimed for industrial process control applications and environmental sensor monitoring. The **DAS30/50/60** series, on the other hand, are designed for motor monitoring, electrical network analysis, and industrial applications.

Finally, for the most demanding applications, we have developed the **DAS1800**, the latest addition to our data acquisition systems. With new features such as **simultaneous recording** at multiple sampling frequencies on the same signal, recording at **1MHz up to 40 channels**, and the ability to perform multiple measurements on a single physical signal, the **DAS1800** will meet all your expectations.

With its **10 module slots** and the availability of **3 acquisition modules**, the **DAS1800** is **THE** modular data acquisition system that will adapt to your needs.



DAS220 10 channels
DAS240 20 à 200 channels



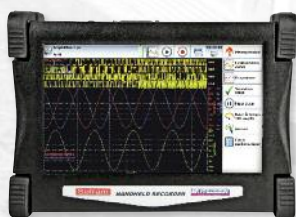
DAS1800
4 to 80 channels



DAS1700
6 to 72 channels

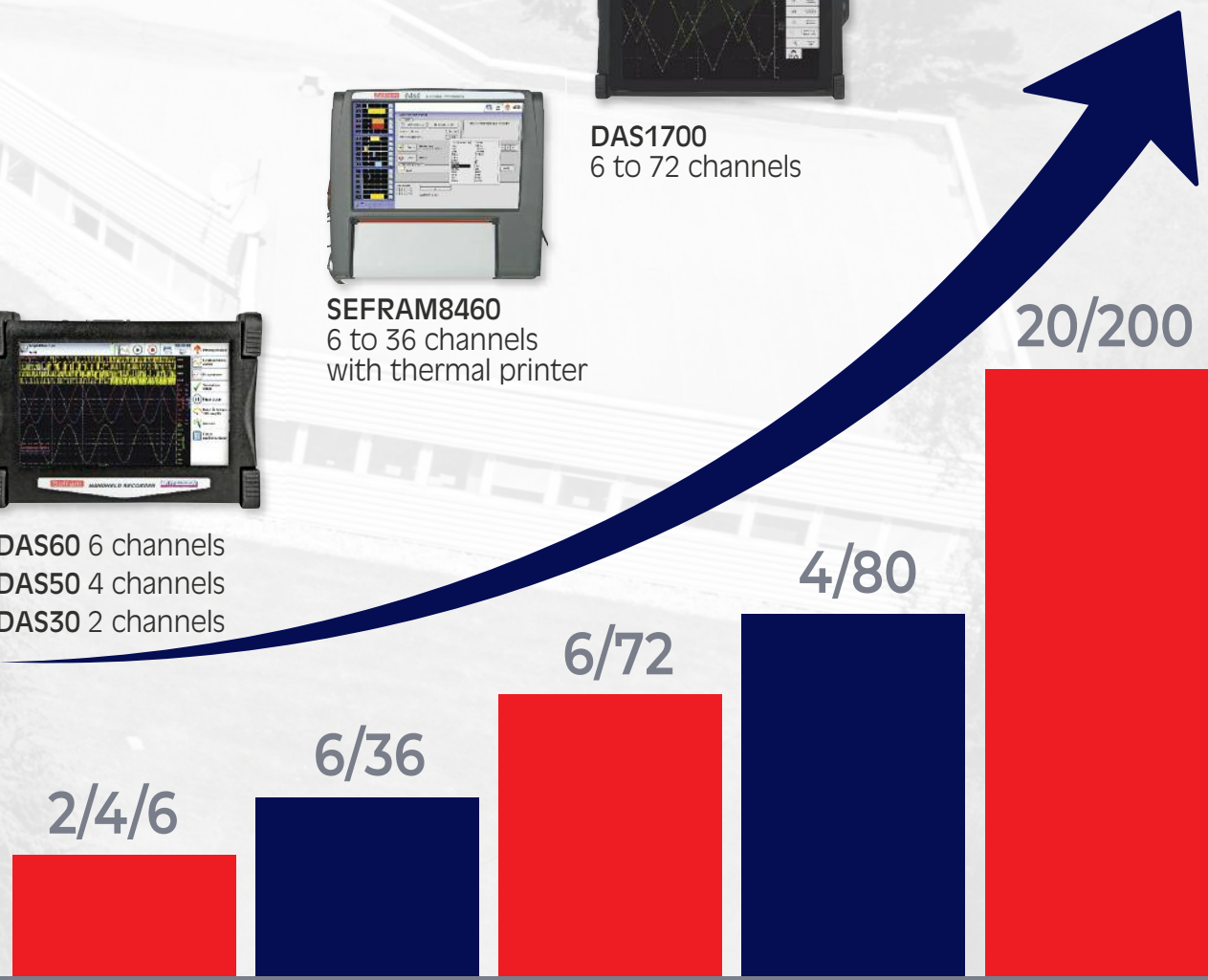


SEFRAM8460
6 to 36 channels
with thermal printer



DAS60 6 channels
DAS50 4 channels
DAS30 2 channels

Maximum
channel
number

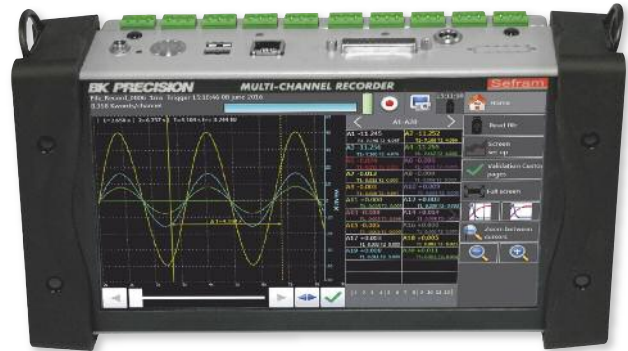


The DAS220 is a portable and rugged datalogger performing measurements virtually anywhere. With 10 multiplexed inputs and convenient screw terminals, the DAS220 makes it easy to measure common process parameters including voltage, current, temperature, pressure, and more.

The DAS220 also provides 12 digital inputs, 4 timing inputs, and 4 alarm outputs for process monitoring applications.

Features and benefits:

- Wide 10-inch touchscreen TFT display
- 10 built-in multiplexed analog inputs
- Extended battery life of up to 15 hours (-BAT)
- Versatile temperature measurements using thermocouples and Pt100 / Pt1000 temperature sensors
- Measure voltage to ± 100 V, resistance to 10 k Ω and current (with optional shunt input-terminal block)
- 16-bit resolution
- Recording interval (sampling rate) up to 1 ms
- 12 logic input/output channels
- 4 timing logic input channels for pulse count, frequency and PWM measurements
- 4 alarm outputs
- WiFi monitoring and control (standard USB WiFi dongle required)
- 32 GB internal solid state memory
- 2 USB Host ports and 1 LAN interface
- Available LabVIEWTM drivers
- Virtual Networking Computing (VNC) capability for replicating the instrument's front panel interface on a PC



10-channel analog module

Featuring a 10-inch touchscreen display and intuitive user interface with large icons, it is easy to configure channels and view measurement data. The convenient channel setup menu displays the settings for all 10 channels including measurement type and scaling. To view live data, select from numerical, time-series graph, or X-Y plot display setup modes.

The DAS220 is ideal for acquiring and storing data over extended periods of time. Data is saved in the internal memory and can be transferred to an external USB flash drive. When equipped with the optional internal battery, the DAS220 can log data for up to 15 hours without connecting to external power.

The DAS220 also provides ethernet connectivity and LabVIEWTM drivers for remote configuration, instrument control, and viewing data. Free PC operating software is also available for viewing acquired data and file conversions.



10 multiplexed analog channels are integrated for portability

Applications:

- Temperature logging with thermocouples and platinum resistance temperature sensors
- Voltage measurements from ± 0.5 mV to ± 100 V (CAT I 100 V)
- 4-20 mA measurements
- Frequency, pulse totalization and pulse rotation measurements, which can be expressed in RPM (rotations per minute)



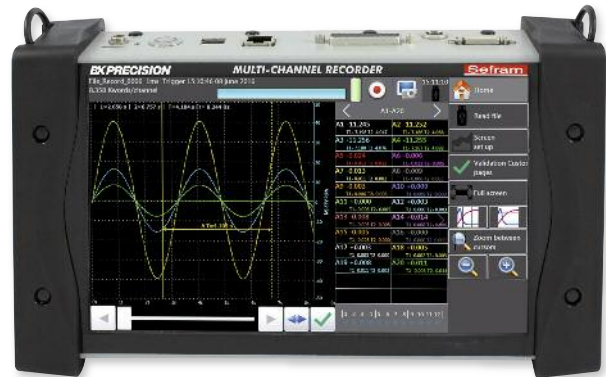
Portable Multi-Channel Data Acquisition Recorder 20 to 200 channels

DAS240 / DAS240BAT

The DAS240 is ideal for measuring and recording common parameters such as voltage, current, temperature, pressure, and more with sampling rates up to 1,000 samples per second. It includes 20 multiplexed analog inputs with convenient screw terminals, and an expandable design to support up to 200 channels. This data logger also provides digital inputs and alarm outputs for process monitoring applications.

Features and benefits:

- Wide 10" touchscreen TFT display
- Extended battery life of up to 15 hours (-BAT)
- 20 multiplexed analog input channels, expandable to 200 channels
- Versatile temperature measurements supporting thermocouples and Pt100 /Pt1000 temperature sensors
- Measure voltage to ± 100 V, resistance to $10\text{ k}\Omega$ and current (with optional shunt input-terminal block)
- 16 bit vertical resolution
- Recording interval (sampling rate) up to 1 ms
- 12 logic input/output channels
- 4 timing logic input channels for pulse count, frequency and PWM measurements
- 4 alarm outputs
- 32 GB internal solid state memory
- WiFi monitoring and control (standard USB WIFI dongle required)
- 2 USB Host ports and 1 LAN interface
- Virtual Networking Computing (VNC) capability for replicating the instrument's front panel interface on a PC



A 20-channel multiplexed module delivered as standard.

Measurements can be viewed graphically and numerically on the 10-inch color touchscreen. Icon driven menus make it easy to navigate through the user interface, and a channel setup screen displays the settings for all channels including measurement type, filter settings, and scaling.

The DAS240 provides LAN connectivity and LabVIEWTM drivers for remote control and logging data directly to a PC. Free additional software is also available for viewing acquired data, transferring files, and exporting to common file formats.

The DAS240 data acquisition recorder features 32 GB of solid-state memory for recording data over extended periods of time. When equipped with the optional internal battery (-BAT option), the DAS240 can run for up to 15 hours without connecting to external power.



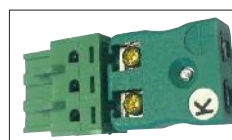
20-channel multiplexed modules (Reference: 902401000).

An evolving and flexible solution with 20-channel measurement modules

Are your applications evolving? Do you need more channels? The DAS240 is scalable and can adapt to your needs! You can increase the number of channels up to 200 channels, in increments of 20 channels. The 20-channel modules (ref: 902401000) are all identical and versatile: they allow for voltage measurements, thermocouples, Pt100-1000, and come with their connectors and a mechanical piece that enables them to be securely attached to each other.



DAS240 equipped with 40 measurement channels



Thermocouple adapter for DAS240
Reference: 902407800



50-ohm shunt (4-20mA) for DAS220 and DAS240
Reference: 902406500

An intuitive man-machine interface

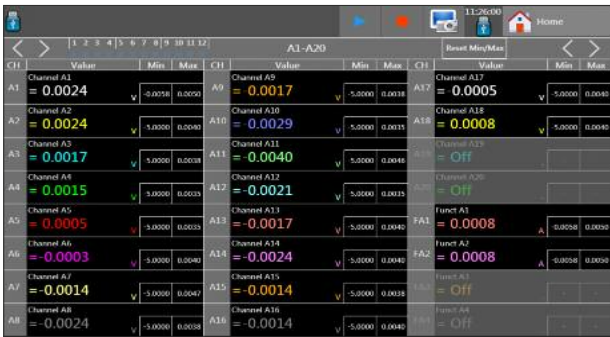


Large display with icon-driven menus for easy setup and operation

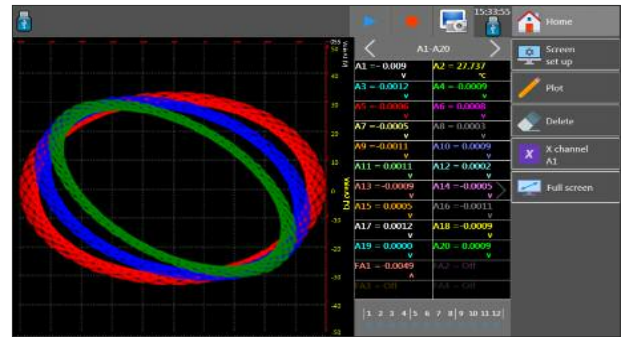
file_Record_0009_2ms Trigger 09:24:27 29 march 2017
1.177 Kwords/channel

	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	
Name	Channel A1	Channel A2	Channel A3	Channel A4	Channel A5	Channel A6	Channel A7	Channel A8	Channel A9	Channel A10	Name
Type	Voltage	Voltage	Voltage	Voltage	Voltage	Voltage	Voltage	Voltage	Voltage	Voltage	Type
Filter	No filter	No filter	No filter	No filter	No filter	No filter	No filter	No filter	No filter	No filter	Filter
Samp. Period	1 ms	1 ms	1 ms	1 ms	1 ms	1 ms	1 ms	1 ms	1 ms	1 ms	Samp. Period
Function	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Function
Range	5 V	10 V	10 V	10 V	10 V	10 V	10 V	10 V	10 V	10 V	Range
Center zero	0 V	0 V	0 V	0 V	0 V	0 V	0 V	0 V	0 V	0 V	Center zero
Max.	2.5 V	5 V	5 V	5 V	5 V	5 V	5 V	5 V	5 V	5 V	Max.
Min.	-2.5 V	-5 V	-5 V	-5 V	-5 V	-5 V	-5 V	-5 V	-5 V	-5 V	Min.
Threshold T1	0.5 V	0.5 V	0.5 V	0.5 V	0.5 V	0.5 V	0.5 V	0.5 V	0.5 V	0.5 V	Threshold T1
Threshold T2	0.5 V	0.5 V	0.5 V	0.5 V	0.5 V	0.5 V	0.5 V	0.5 V	0.5 V	0.5 V	Threshold T2

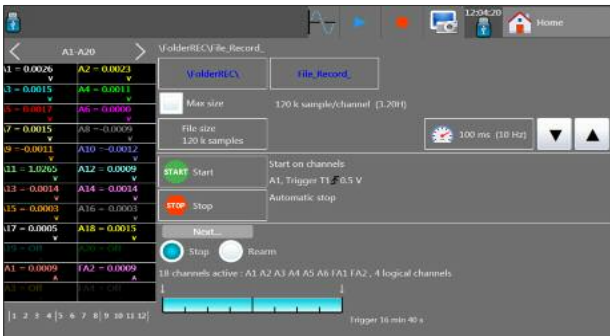
Channel setup displays all parameters on a single screen



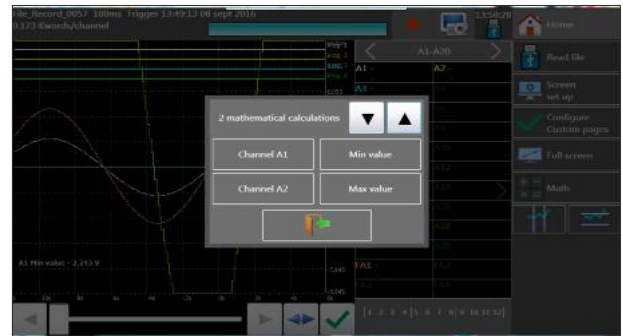
Digital display of measured values



XY mode for plotting one varying voltage versus another



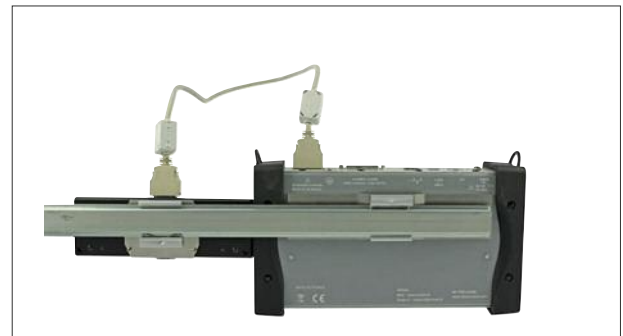
Comprehensive triggering capabilities: Configure triggers on analog and logic channels. Select from multiple combinations of thresholds, channels and conditions



Math functions between channels



Rack mounting
Reference : 902209000



Montage Rail Din
Reference : 902403000 for DAS240 (up to 60 channels)
Reference : 902201000 for DAS220

A data acquisition system that allows you to perform your initial analyses on the 10-inch color screen



Display of recorded data, with zoom and cursors.



File management directly on the DAS220 or DAS240.

A complete range of accessories

- 902209000 Rack Mount for DAS220 and DAS240
- 902401000 20-Channel Measurement Box for DAS240
- 902408000 Rugged Carrying Case for DAS240, DAS220
- 902201000 Din Rail Mount for DAS220
- 902403000 Din Rail Mount for DAS240
- 902402000 WiFi Option (on USB)
- 917008000 Isolated Logic Channel Box
- 902407000 Logic Channel Breakout Cable
- 902406500 4-20mA / 50-ohm Shunt

A robust carrying case (optional)



Wi-Fi connections with the dongle (reference 902402000). The VNC application allows you to control all the functions of the DAS240 and DAS220.

Real VNC® is a registered trademark.



Optional accessories



The 50-ohm shunt can be used to record the output of 4-20 mA loop sensors.
Ref: 902406500



Rugged carrying case.
Ref: 902408000



1 set of 20 spare analog input connectors.
Ref: 902401050



Logic channel connection cable.
Ref: 902407000



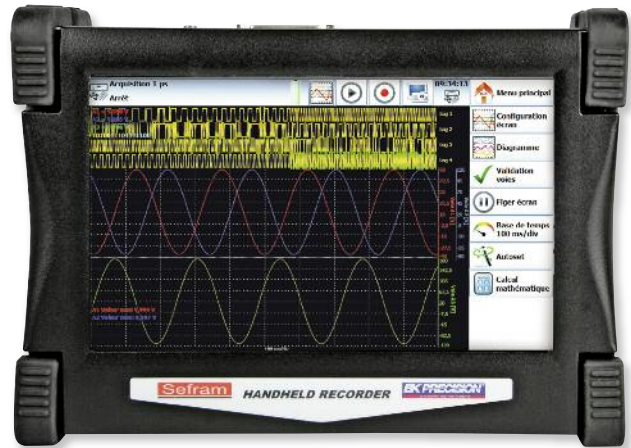
Isolated logic channel box.
Ref: 917008000

Dedicated to industrial maintenance with up to 9.5 hours autonomy

A range of devices for all your applications

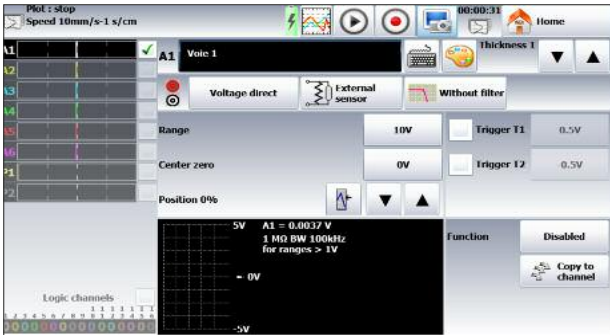
Features and benefits:

- Fast 1 MSa/s sample rate (memory mode) and 100 kHz bandwidth for capturing intermittent events
- Accurately view and record signals from ± 1 mV to ± 500 VDC and 424 VRMS
- CAT III 600 V rated isolated channels
- Wide 10-inch touchscreen TFT display
- Capture mixed signals with one instrument, such as high voltage/current waveforms, temperature and logic data
- Battery life up to 9.5 hours
- 64 GB (DAS60) and 32 GB (DAS30/50) built-in solid state memory
- 2, 4, or 6 universal analog channels
- 14-bit resolution
- 16 logic input channels
- Temperature measurements supporting thermocouples and Pt100/Pt1000 sensors
- Frequency counter
- WiFi monitoring and control (standard USB WiFi dongle required)
- 2 USB host ports and one LAN interface
- Free software for control and analysis
- Virtual Networking Computing (VNC)
- 110 mm integrated thermal printer (optional)



An intuitive interface for easy use

The DAS 30/50/60 data acquisition systems are equipped with a 10-inch touchscreen. The user interface becomes fully interactive



Feature	DAS30	DAS50	DAS60
Isolated Universal Channels	2	4	6
Maximum Sampling Rate (Memory Mode)	1 MSa/s	1 MSa/s	1 MSa/s
Maximum Sampling Rate (File Mode)	200 kSa/s	200 kSa/s	500 kSa/s
110 mm Thermal printer	Factory option	Factory option	Factory option
Memory	32 GB	32 GB	64 GB
2 Pt100/Pt1000 Inputs	Factory option	Factory option	Included
Power Analysis	Single-Phase	Single-Phase & Delta (Aron)	Single-Phase & Delta (Aron), Star
Power Analysis Frequency	50/60 Hz	50/60 Hz	50/60 Hz and 400 Hz
PWM Analysis	-	-	Included
Alarms	2	2	4

Portable data acquisition systems with 2, 4, 6 analog channels

DAS30 / DAS50 / DAS60

An ergonomic design

DAS60

Analog channels

Isolated CAT III 600 V rated analog input channels for voltage, current and temperature logging with thermocouples.

Ground

DC power input

Power button

Alarm output / logic input

Pulse counter and frequency measurements

Pt100 / Pt1000

2 inputs for dedicated temperature measurements

USB host

Save or load configuration and data acquisition files

LAN

Remote and control and monitoring



DAS50

Pt100 / Pt1000

Factory installed option



DAS30

Pt100 / Pt1000

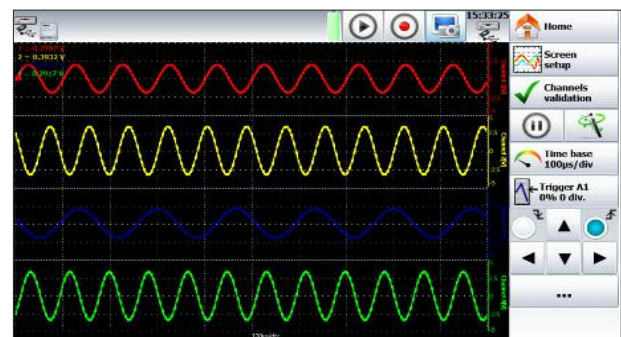
Factory installed option



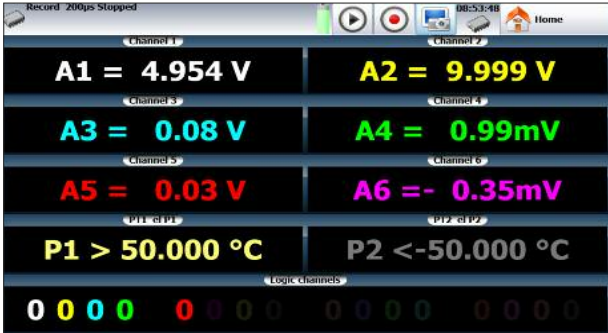
Many features

	A1	A2	A3	A4	A5	A6	PT1	PT2
Name	Channel 1	Channel 2	Channel 3	Channel 4	Channel 5	Channel 6	PT1 of PT1	PT2 of PT2
Type	Thermocouple K	Voltage direct	Voltage direct	Voltage direct	Voltage direct	Voltage direct	Pt100 2 wires 0.00 Ω	Pt1000 2 wires 0.00 Ω
Filter	Without filter	Without filter	Without filter	Without filter	Without filter	Without filter	10 Hz	10 Hz
Function	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
Range	50°F	1V	200V	1V	200V	1V	100°C	100°C
Center zero	70°F	0V	0V	0V	0V	0V	0°C	0°C
Max.	100°F	0.5V	100V	0.5V	100V	0.5V	50°C	50°C
Min.	40°F	-0.5V	-100V	-0.5V	-100V	-0.5V	-50°C	-50°C
Threshold T1	0.5V	0.5V	0.5V	0.5V	0.5V	0.5V	0.5°C	0.5°C
Threshold T2	-0.5V	-0.5V	-0.5V	-0.5V	-0.5V	-0.5V	-0.5°C	-0.5°C

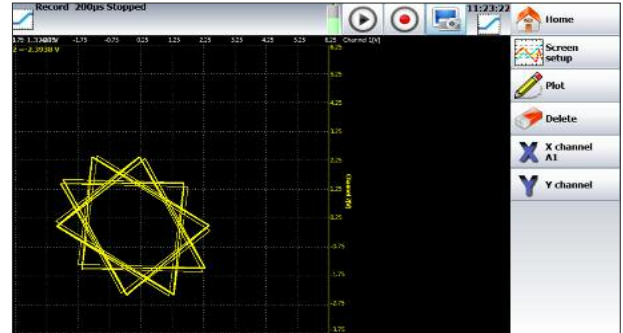
The channel configuration table displays all the parameters on a single screen.



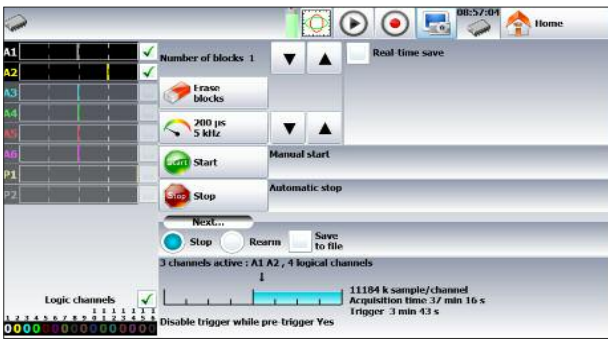
Display mode similar to that of an oscilloscope with a bandwidth of 100 kHz.



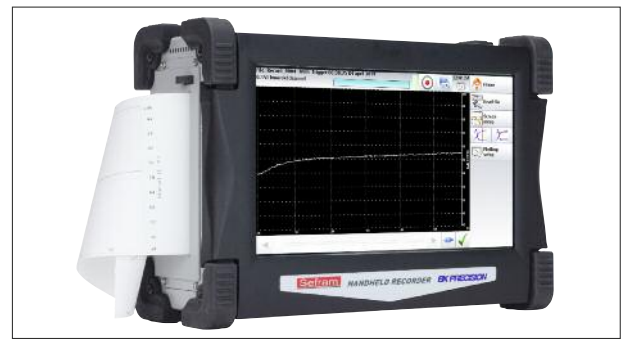
Numerical display of measured values.



XY mode for plotting one varying signal versus another.

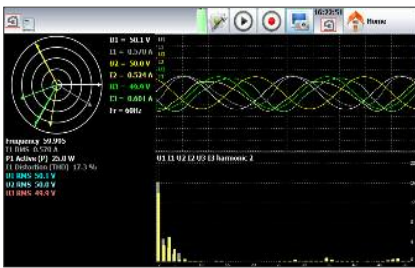


Comprehensive triggering capabilities: Configure triggers on analog and logic channels. Select from multiple combinations of thresholds, channels and conditions.

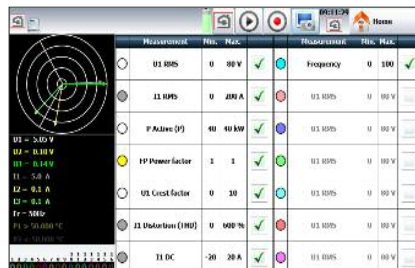


Optional thermal printer enables hard copies of recorded data.

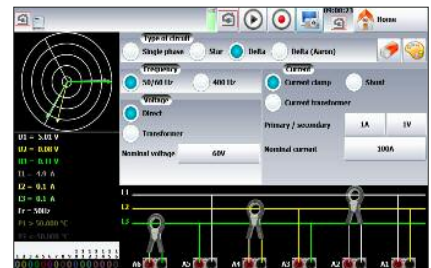
A complete power analysis mode



Visualization of curves and harmonic analysis up to the 50th order.



Select which measurements are displayed on screen



Choose from three phase configurations Delta, Delta (Aron) or Star

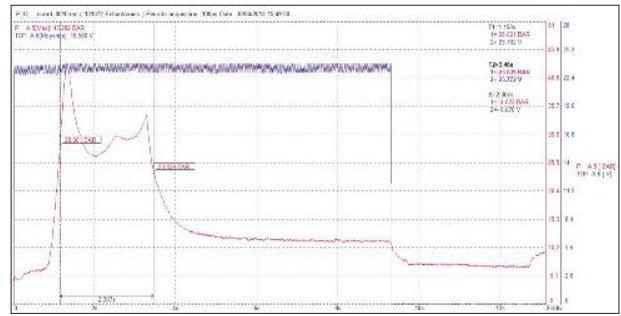
Sefram Viewer

This free and license-free software comes as standard. It allows for recording visualization and data export to other applications. Cerame Viewer simplifies the analysis of acquired signals.

*Available for download on the Sefram website

Features

- Printing of curves
- Display of values
- Cursors and zoom
- Concatenation of files
- 8 mathematical functions
- Annotations up to 120 characters
- Export in bitmap, Excel®, txt, csv
- Configure the visualization



The screenshot shows a data table with multiple columns of numerical values. The table appears to be a list of data points or measurements, with columns for time, voltage, and other parameters. The data is organized in a structured format, likely for export to other applications.

Sefram PILOT®

This free software is provided as standard. It enables the configuration and remote control of Sefram data acquisition systems via Ethernet.

*Available for download on the Sefram website.



Optional accessories

Current clamps

- SP 201 - 200 AAC, 10mV/1A, ø 15 mm.
- SP 221 - 10 AAC, 100mV/1A, ø 15 mm.
- SP 230 - 1200 AAC, 10mV/1A, ø 50 mm.
- SP 261 - 1200 AAC+DC, 1mV/1A, ø 50 mm.
- SP 270 - 2000 AAC, 1 mV/1A, ø 70 mm.
- A 1587 - 3000 AAC, 0.333 mV/A, ø150 mm / Flex Shunts

Banana plug shunts (low voltage)

- 910007100 - Shunt CA 0.01 ohm: 3 A
- 910007200 - Shunt CA 0.1 ohm: 1 A
- 989007000 - Shunt CA 50 ohm: 0.05 A
- 989006000 - Shunt CC 1 ohm: 0.5 A
- 912008000 - Shunt CA 10 ohm: 0.15 A

Wire shunts

- 207030301 - Shunt 0.01 ohm : 30 A max



Logic channels

- 917008000 - Adapter box
- 16 isolated logic channels
- 902407000 - Logic channel cable

Carrying case

- 903001000 - Printing module
- 903002000 - Printing module

Consumables

- 837500526 - 10m roll paper
- 2-channel Pt100/Pt1000 option for DAS30 / DAS50
- 903003000 - 2-channel Pt100/Pt1000
- 19-inch rack mounting kit
- 903004000 - 19-inch rack kit



The DAS1700 combines fast-sampling rates, a large hard drive, and a 15.6" touch screen display. With 3 slots for measurement boards, the DAS1700 can be configured for your specific application. Choose any combination of 4 measurement boards for measuring voltage, current, temperature, and strain.

For capturing high speed or transient signals, the DAS1700 can simultaneously acquire and record 36 channels at 1 MSa/s, or 6 channels to the hard drive. It also comes with a 500 GB solid state hard drive for storing large amounts of data.

The secondary file function allows you to record low and high-speed data in separate files to reduce file sizes.

A variety of options are available to extend the functionality of the DAS1700 including battery operation, IRIG and GPS synchronization, CAN and LIN inputs, and an extension unit which provides 3 additional measurement board slots.

Features and benefits:

- 1 MSa/s sampling rate on up to 36 channels simultaneously
- Up to 72 analog inputs (with multiplexed board and extension option)
- Measure up to 1000 VRMS
- 3 slots for measurement modules (expandable to 6)
- 4 measurement board types:
 - Universal (6 ch)
 - Multiplexed (12 ch)
 - Strain Gauge (6 ch)
 - High Voltage (6 ch)
- Temperature measurements with thermocouples and RTDs (Pt100/Pt200/Pt500/Pt1000)
- 500 GB internal SSD hard drive (2 TB optional)
- Power Analysis mode for 50 Hz, 60 Hz, 400 Hz, and 1 kHz single or 3-phase electrical networks
- Advanced calculations and user defined math functions
- Battery option (up to 2 hours)
- 16 logic input channels
- Wide 15.6 inch touchscreen display
- Optional IRIG and GPS synchronization
- Optional CAN and LIN inputs (2 ports each)
- 4 USB host ports, LAN interface, and VGA outputs
- WiFi monitoring and control
- Rugged carrying case included



Configure the DAS1700 to fit your needs with any combination of module boards with up to 3 in the base unit, or up to 6 with the extension option

Universal Board	
High Voltage Board	
Multiplexed Board	
Strain Gauge Board	

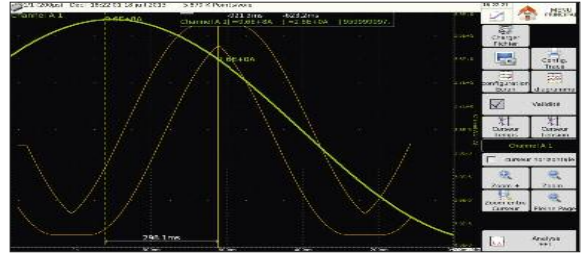
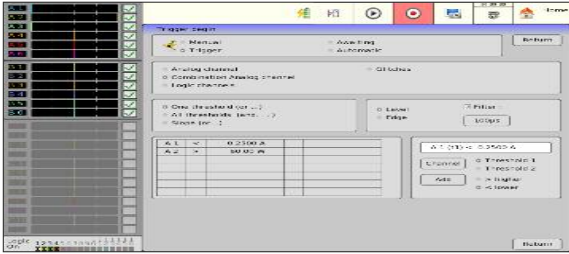


Extension option for up to 6 measurement boards

	Universal	High Voltage	Multiplexed	Strain Gauge
Channels	6	6	12	6
Maximum Voltage	± 500 V or 424 VRMS	± 1000 V or 1000 VRMS	± 50 VDC	± 50 VDC
RMS Voltage	✓	✓	-	-
Resolution	14 bits	14 bits	16 bits	16 bits
Sampling Rate	1 MSa/s	1 MSa/s	5 kSa/s	100 kSa/s
Voltage	✓	✓	✓	✓
Current	✓	✓	✓	✓
Fréquency	✓	✓	-	-
Thermocouple	✓	✓	✓	✓
Counter	✓	✓	-	-
Power Analysis	✓	✓	-	-
RTDs	-	-	Pt100/Pt200/Pt500/Pt1000	Pt100/Pt1000

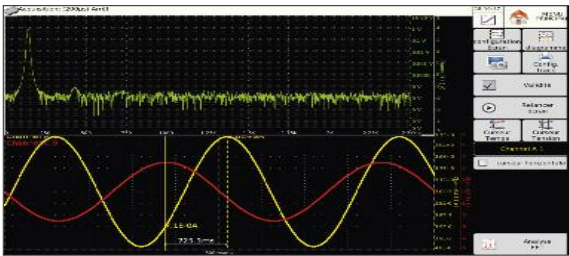
Comprehensive triggering capabilities

Configure triggers on analog and logic input channels. Select from multiple combinations of thresholds, channels and conditions.



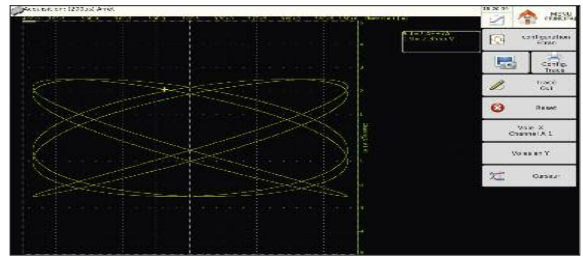
Tools to match your measurements

FFT analysis



FFT analysis is performed in real time. All functional functions with ease.

XY mode

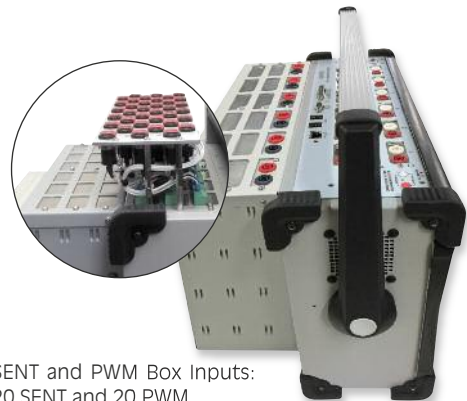


XY mode for plotting one varying signal versus another

SENT sensor analysis and PWM measurements

P	Value	Nom	S	Pos	PWM	S	Valid	Nom	S	Tick	CIC
P1	On	Voie G13	1.5V	918.0Hz	70.0%	51	On	Voie G33	1.5V	3.2us	DK
P2	On	Voie G14	1.5V	911.0Hz	71.0%	52	On	Voie G34	1.5V	3.2us	DK
P3	On	Voie G15	1.5V	912.0Hz	72.0%	53	On	Voie G35	1.5V	3.2us	DK
P4	On	Voie G16	1.5V	913.0Hz	73.0%	54	On	Voie G36	1.5V	3.2us	DK
P5	Off	Voie G17	1.5V			55	Off	Voie G37	1.5V		
P6	Off	Voie G18	1.5V			56	Off	Voie G38	1.5V		
P7	Off	Voie G19	1.5V			57	Off	Voie G39	1.5V		
P8	Off	Voie G20	1.5V			58	Off	Voie G40	1.5V		
P9	Off	Voie G21	1.5V			59	Off	Voie G41	1.5V		
P10	Off	Voie G22	1.5V			60	Off	Voie G42	1.5V		
P11	Off	Voie G23	1.5V			61	Off	Voie G43	1.5V		
P12	Off	Voie G24	1.5V			62	Off	Voie G44	1.5V		
P13	Off	Voie G25	1.5V			63	Off	Voie G45	1.5V		
P14	Off	Voie G26	1.5V			64	Off	Voie G46	1.5V		
P15	Off	Voie G27	1.5V			65	Off	Voie G47	1.5V		
P16	Off	Voie G28	1.5V			66	Off	Voie G48	1.5V		
P17	Off	Voie G29	1.5V			67	Off	Voie G49	1.5V		
P18	Off	Voie G30	1.5V			68	Off	Voie G50	1.5V		
P19	Off	Voie G31	1.5V			69	Off	Voie G51	1.5V		
P20	Off	Voie G32	1.5V			70	Off	Voie G52	1.5V		

Display screen for PWM measurements and SENT sensors



SENT and PWM Box Inputs:
20 SENT and 20 PWM
Reference: 916009600

CAN-LIN Bus Analysis

This feature allows for the analysis of the following Buses:

- CAN
- CAN FD
- LIN
- CAN DB

2 isolated LIN inputs and 2 isolated CAN channels are available on the rear panel.

An external power supply of 5-12V is provided on the connectors.

ID	Voies	Data	Horodatage
77776666	CAN voie 2	33332222/33322222	-1717991288
ccccdeff	CAN voie 2	89abcdeff/89abcdeff	-2003195205
cccccccc	CAN voie 2	1122333/1122333	-1431651397
22223333	CAN voie 2	66667777/66667777	4369
fedcba98	CAN voie 2	ffeeddccc/ffeeddccc	-1
33221100	CAN voie 2	ddddeccc/ddddeccc	2003195204
77776666	CAN voie 2	33332222/33322222	-1717991288
ccccdeff	CAN voie 2	89abcdeff/89abcdeff	-2003195205
cccccccc	CAN voie 2	1122333/1122333	-1431651397
22223333	CAN voie 2	66667777/66667777	4369
fedcba98	CAN voie 2	ffeeddccc/ffeeddccc	-1

Display of complete frames based on the selected BUS.

The Model 8460 is a versatile high-speed data acquisition recorder with an integrated thermal printer. Measurement results can be viewed on the 15.4" touchscreen display, saved to the large internal hard drive, and printed on continuous 270mm wide-format paper.

With 3 slots for dedicated input modules, this system can be configured to your specific application. Choose any combination of universal, isolated high voltage, multiplexed, or strain gauge input modules for up to 36 analog inputs.

For capturing high speed or transient signals, the 8460 can simultaneously acquire and record 18 inputs at 1 MSa/s in memory mode. A variety of start and stop conditions are available including trigger on analog channel(s) level or edge, logic channel high or low, or through a designated date and time. You can also choose from a variety of actions to be performed when the recording is stopped including sending emails, printing data in memory, and changing the setup file.

Additionally, the secondary file function allows you to record low and high-speed data in separate files to reduce file sizes and minimize storage usage.

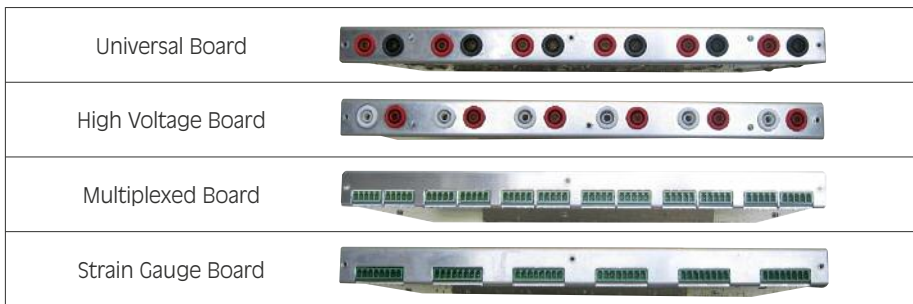
Features and benefits:

- Integrated 270mm thermal paper printer
- 6-36 analog channels
- Up to 1 MSa/s sampling rate
- 4 measurement board types:
 - Universal (6 ch)
 - Multiplexed (12 ch)
 - Strain Gauge (6 ch)
 - High Voltage (6 ch)
- Temperature measurements with thermocouples and RTDs (Pt100, Pt200, Pt500, & Pt1000)
- 500 GB internal hard drive
- Power Analysis mode for 50 Hz, 60 Hz, 400 Hz, and 1 kHz single and 3-phase electrical networks
- Advanced calculations and user defined math functions
- 16 logic input channels
- Wide 15.4" touchscreen display
- Optional IIRG synchronization
- 6 USB host ports, 1 LAN interface, & 1 VGA output
- WiFi monitoring and control



SEFRAM 8460

Configure the 8460 to your preferences with the 4 available measurement cards.



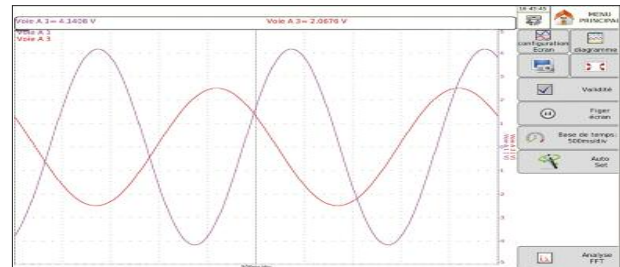
	Universal	High Voltage	Multiplexed	Strain Gauge
Channels	6	6	12	6
Maximum Voltage	± 500 V or 424 VRMS	± 1000 V ou 1000 VRMS	± 50 VDC	± 50 VDC
RMS Voltage	✓	✓	-	-
Resolution	14 bits	14 bits	16 bits	16 bits
Sampling Rate	1 MSa/s	1 MSa/s	5 kSa/s	100 kSa/s
Voltage	✓	✓	✓	✓
Current	✓	✓	✓	✓
Fréquency	✓	✓	-	-
Thermocouple	✓	✓	✓	✓
Counter	✓	✓	-	-
Power Analysis	✓	✓	-	-
RTDs	-	-	Pt100/Pt200/ Pt500/Pt1000	Pt100/Pt1000

Fully configurable printing

You define all print characteristics, such as f(t) or XY mode, paper speed (1mm/h to 200mm/s), number of diagrams or choice of re-ticles. For each channel, you complete the printout with annotations date, time and channel name.

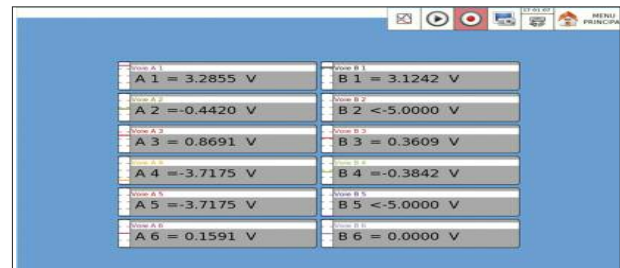
Large touch-screen display

The 8460 data acquisition systems are equipped with a 15.4" touch-screen display, for real-time visualization of tracks those already recorded.



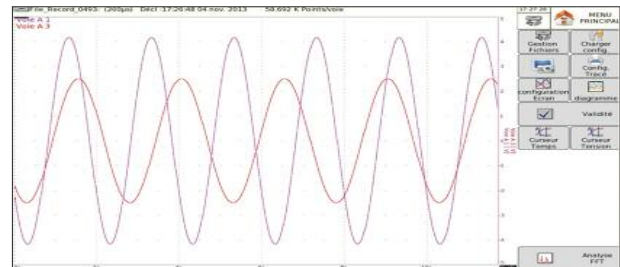
A wide range of layout options adapt to all your applications

A large color touch screenThe 8460 features 20 fully-configurable automatic measurements. Measurement file processing can be carried out directly on the data acquisition system, using cursors and various zoom functions to interpret your recordings with the utmost precision.

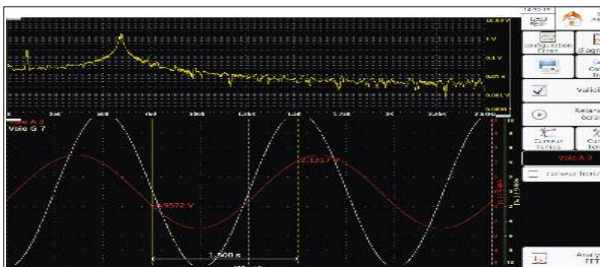


Data analysis and processing

Recording on internal hard disk at 1 Mech/s on 6 simultaneous channels. USB ports are also available for fast data transfer. Thanks to the Ethernet interface, you can easily transfer all your recordings.



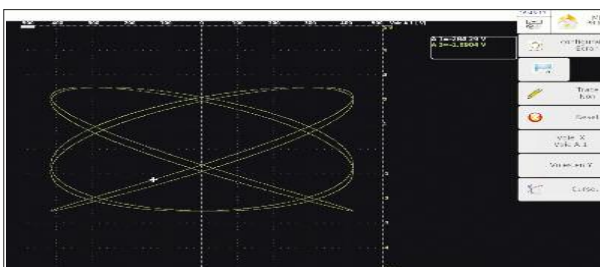
Various operating modes



Real-time FFT analysis is performed, and you can access all functions with ease.



Expert Mode: Full access to all configuration functions. User Mode: Restricted access.



XY Mode for plotting one varying signal versus another

NEW

This new-generation multi-channel data acquisition system is **developed and manufactured in France**.

Its ability to record and analyze all types of electrical signals (sensors, electrical relays, electrical networks, etc...) makes it ideal for a wide range of industrial applications (maintenance, R&D, production, etc...).

The choice of configurations, through the **selection of acquisition modules** in the device, gives the system **great versatility**, with the ability to capture events down to the microsecond range.

The DAS1800 was developed to replace the DAS1700. It has been totally redesigned, with a **new interface and new performance features** to meet our customer's increasingly demanding needs.

Some features:

- Increased modularity with 10 slots for simultaneous recording of **up to 80 channels at 1 MSa/s/ch**.
- **A new interface**, making the product even more intuitive and easy to use. The device also incorporates numerous context-sensitive aids, explanatory videos and step-by-step configuration mode.
- **New performance** with the ability to simultaneously record one or more signals at **4 different sampling frequencies**. The device also enables «ultra-fast» replay of large recording files, opening **up at to 11GB of data per second!**



Features and benefits:

- Stream 40 channels at 1 MSa/s/ch
- Up to 80 analog inputs with MUX8 multiplexed module
- Measure up to +/- 600 VDC
- 10 slots for measurement module:
 - Universal (4 ch)
 - Multiplexed (8 ch)
 - High Impedance (4 ch)
- Temperature measurements with thermocouples and RTDs
- Store sensor information and parameters in the sensor library
- Simultaneous recording at multiple sample rates (up to 4)
- Internal signal conditioning with analog and digital filters
- 15.6" full HD touchscreen display
- 2 TB internal SSD (standard)
- Advanced calculations and automatic measurements
- Battery option (up to 3.5 hours of operation)
- 16 digital input channels (24 V) and dedicated 5 W power rail for sensors
- USB ports (2 USB 3.0 and 2 USB 2.0), 2 LAN ports (1 Gbps), and 1 HDMI port
- WiFi monitoring and control
- Rugged carrying case included



Different acquisition modules



Universal board
Fully isolated, versatile, it can record signals from a few mV up to 600V.



Multiplexed board
Dedicated to recording process signals, it can record temperatures (thermocouples, Pt100 - Pt1000, etc.) as well as low voltages.



Universal High Impedance Board
Identical to the universal board in terms of features, it has an input impedance of 10MΩ.

Input acquisition boards

15.6-inch Full HD color touchscreen

Protective bumpers



Input modules

Power on/off button

USB Ports

Gigabit Ethernet Ports

Stand / Carry handle



Digital inputs and alarm outputs

Synchronization

Main AC power input connector

Ground connector

Power supply outputs



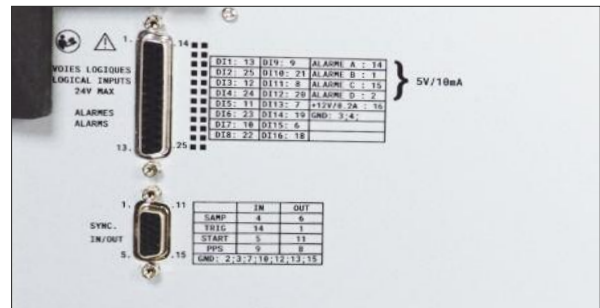
Battery option for fully autonomous working



Battery option: Allows the device to be used without a power supply, with up to 3 hours 30 minutes of autonomy. It also allows you to continue recording during interruptions

Digital inputs and alarm outputs

- Equipped with 16 digital inputs, the DAS1800 allows recording of all-or-nothing signals. Recording can also be triggered by one or a combination of these signals.
- The DAS1800 also features 4 alarm outputs for reporting when a recording is triggered, or a threshold is exceeded. These conditions are fully configurable.



External power supplies for your sensors



- The device features power outputs to supply your sensors.
- Choose from 4 different supply voltages:
 - +3,3V - 500mA
 - +5V - 500mA
 - +12V - 400mA
 - +24V - 200mA

Intuitive banner for menu access

- The DAS1800 is equipped with a banner for quick access to the various menus:
- Configuration of channels and recording triggers
- Signal visualization / realtime display
- Playback of recorded files
- File Manager



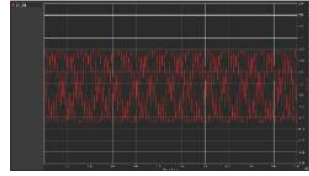
Time-saving advanced functions



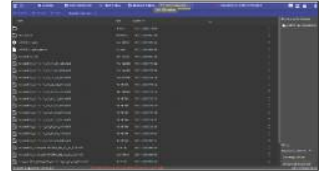
Use **drag-and-drop** to view measurements on the real-time display.



DMM display for all channels.



“Oscilloscope” display for all channels.



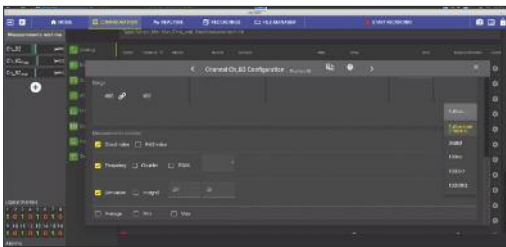
Organize your recordings by creating directories and documenting your tests in the recording file: comments, test names, technician names, locations, etc..

Display what you want to see!

You can create **customized displays**, showing only what you want to see, while saving elements you don't want to see in real time.



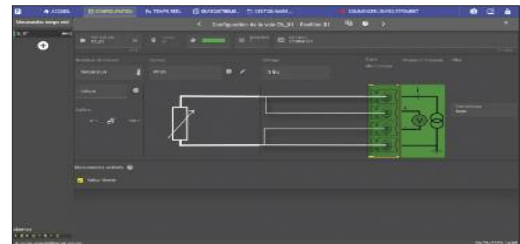
A single physical input for multiple measurements



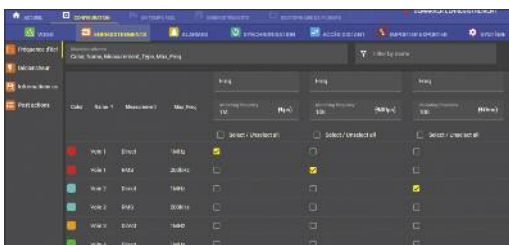
- Connect only one channel and perform several measurements on the same channel:
- Direct signal
- RMS value
- Frequency and Counters
- Derivative and Integral
- Min, Max, and Average

Easy channel configuration

- Easily configure your measurement channels and view connection diagrams.

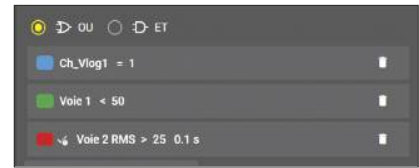


Several sampling frequencies on the same signal.



- Record one signal or different signals **at different frequencies**.
You can have a fast file to avoid missing any transients, and a slower file for signals that don't require fast sampling speed (temperature signals, for example).
Benefit from **4 simultaneous frequency groups**

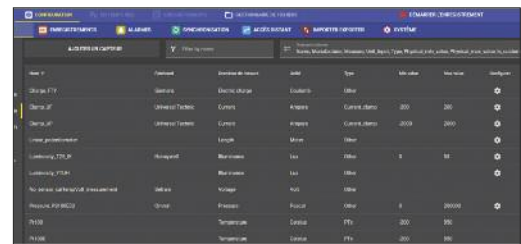
Configure and customize recording triggers



Trigger your recording on one or more threshold conditions, but also after a delay or on a combination of logic and/or analog channels.

Sensor library for fast measurement setup

- Use the **sensor library** to select preconfigured sensors or save settings and scaling for sensors you use regularly and save time when setting up your device.



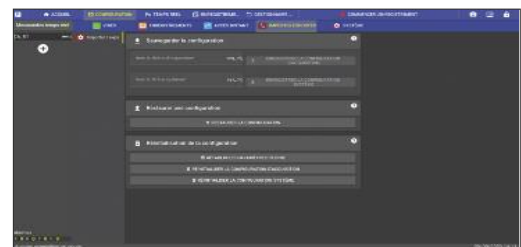
Instant View: Ultra-fast playback of large recording files at 11GB/s opening speed



- Quickly open records containing tens of gigabytes of data.

Import or export saved configurations

- The configuration **export function** saves measurement channel configuration and recording parameter settings.
- The **import function** automatically configures the device from a previously saved configuration file, or from another DAS1800.

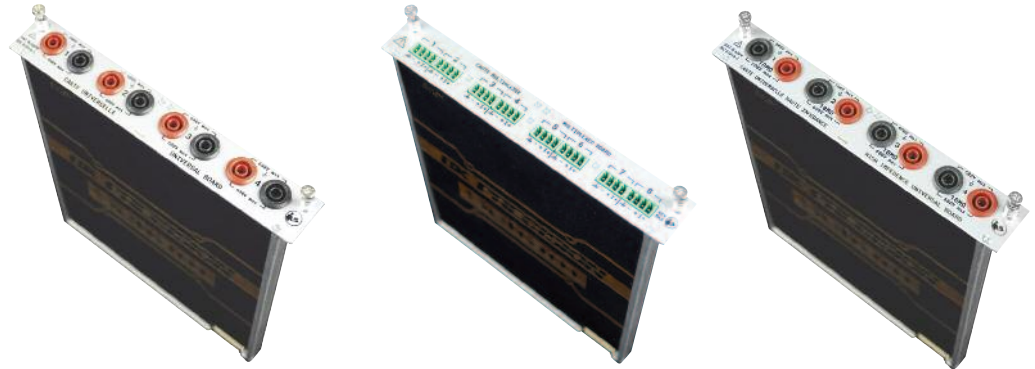


Easy device update



- The device can be updated from a **USB stick** or directly via the device's **Ethernet connection**.

4 measurement modules available



	Universal board	Multiplexed board	Universal High Impedance Board
Number of channels	4 isolated single-pole channels	8 non-isolated differential channels	4 isolated single-pole channels
Max. voltage	+/- 600V DC or 424 VRMS	+/- 48V DC	+/- 600V DC or 424V RMS
Max. sampling frequency	1Mech/s	5kech/s	1Mech/s
Bandwith	100kHz	1kHz	80kHz
Input impedance	1MΩ	2MΩ	10MΩ
Protection	CAT III 600V	CAT I 48V	CAT III 600V

Ordering information

Base unit:

- DAS1800 Base unit DAS1800
- DAS1800-BAT Base unit DAS1800 with battery option

Ordering option:

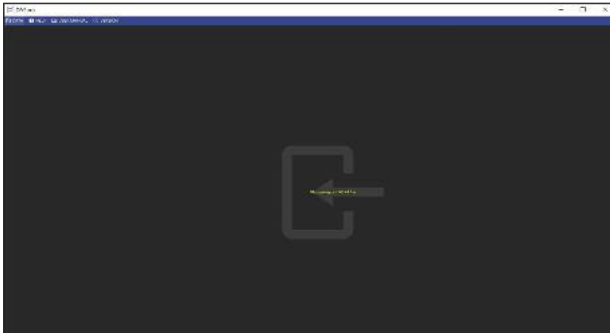
- D18-FLE DAS1800 with fanless option (convection cooling)

Acquisition modules:

- D18-UNI4 Universal Board – 4 channels
- D18-MUX8 Multiplexed Board – 8 channels
- D18-HIZ4 Universal High Impedance Board – 4 channels

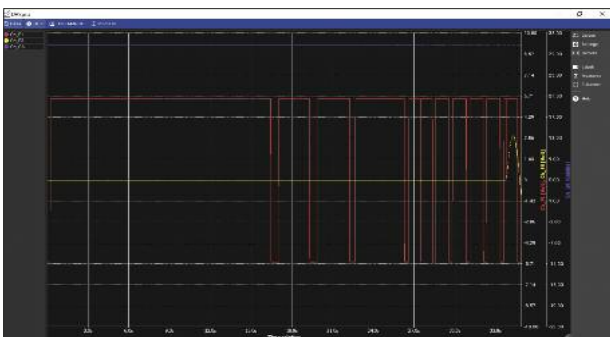


New operating software for a universal file format



Recording files produced with the DAS1800 are in MDF4 format, containing both raw measurement data and the metadata required to interpret the raw data. The metadata contains, for example, information on how to convert the raw data into usable physical quantities, or the names of signals complying with the ASAM standard.

Software with the same interface as the device



Don't get lost when analyzing your files: the DASpro® analysis and export software features the same interface as on the DAS1800.

Advanced features for complete file analysis



Get all the analysis tools you need for your recordings:

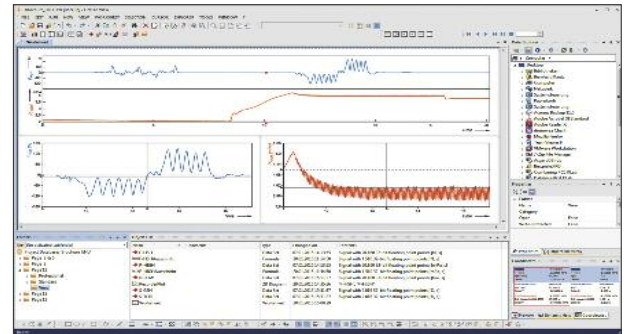
- Position cursors,
- Display signal measurements,
- You also have the option of adding a background image so you can compare your curves with a template for example.

Software for quick and easy analysis of all your acquisitions (compatible with all SEFRAM data acquisition systems!)

Are you an engineer, measurement technology expert, scientist or contractor? Are you dealing with complicated measuring tasks or are you responsible for the quality and safety of your products? Then here's your opportunity to get to know FlexPro: the powerful, intuitive software application for analyzing and presenting your data. FlexPro particularly excels in analyzing dynamic processes.

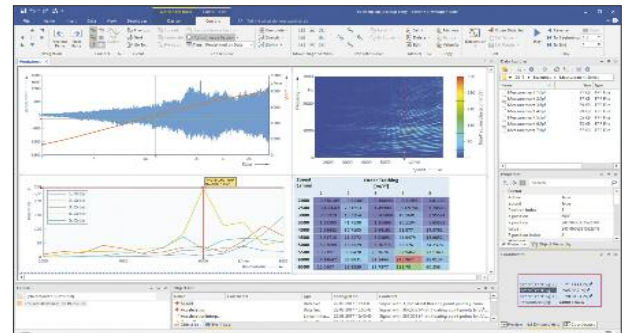
Advantages of FlexPro®

- Search through large amounts of data lightning fast.
- Import measured data in all popular formats.
- Use your analyses on any number of measurements at the click of a button.
- Take advantage of the latest analysis procedures for the precise analysis of your measured data.
- Process millions of measurement values in seconds using your multicore CPU.
- Share your analysis templates with colleagues over your network.



Analyze and Present your Data at the Click of a Button

- In FlexPro all elements that you create are linked to each other: from raw data to the final report.
- Use analysis and presentation templates from the extensive FlexPro library and start analyzing your data with just one click!
- Modify the analysis procedure and immediately see the effect on the results.
- Create individual templates and share them over your network.



Quickly Analyze Multi-Channel Data

Temperature, acceleration, strain are just some examples of quantities that are usually measured multi-channel. When analyzing test series, the number of data sets to evaluate and present vary. The dynamic analysis and presentation features in FlexPro adjust automatically to the data and make it easy for you to analyze this type of data.



Big Data in Test & Measurement

The FlexPro® Data Explorer option indexes measurement data archives on the server or your hard disk. Characteristic quantities are calculated during indexing already. Use configurable queries to search for characteristic quantities or other data attributes and quickly find the data sets you want to analyze.

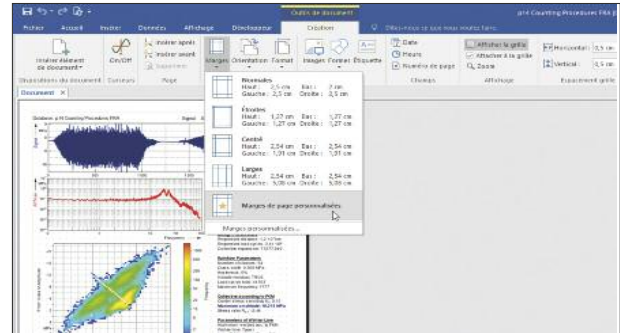
Ease of use and enhanced performance

FlexPro offers the high functionality of technical software with the convenience of a Microsoft Office™ application.

- The FlexPro 2017 user interface has been completely redesigned using the Microsoft Office™ model.
- Keep an eye on your data with FlexPro's convenient preview function
- With FlexPro Professional, you can use the full performance of your multi-core processor
- Keep working while FlexPro calculates your analyses in the background

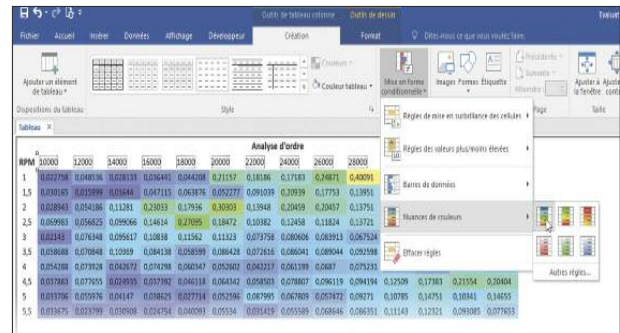
FlexPro - designed to make your work

- You'll love the look and feel of the FlexPro 2017 with Microsoft Office™. User-friendly project database with powerful cursors
- Search and import data for all binary formats binary formats of measurement acquisition systems
- Wide selection of predefined analyses
- Data indexing in client/server mode
- Macro recording and playback to make your work easier
- Efficient data exchange with export options
- Compatible with all major manufacturers of data acquisition manufacturers.



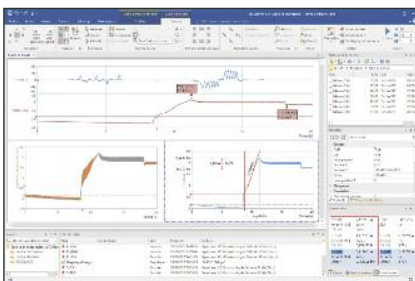
Clearly present your results

- Take advantage of FlexPro's diverse presentation and design options to highlight the key features of your analyses.
- Choose from a multitude of possible configurations to format your graphs and tables from galleries.- Enhance table legibility with conditional formatting
- Combine measurement data with background maps and videos, for example, to optimally represent a road test

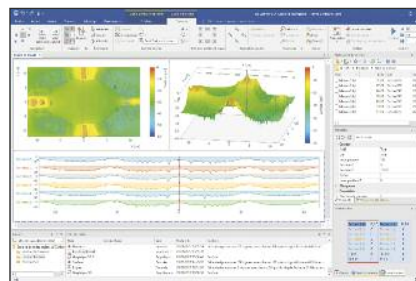


Different versions available

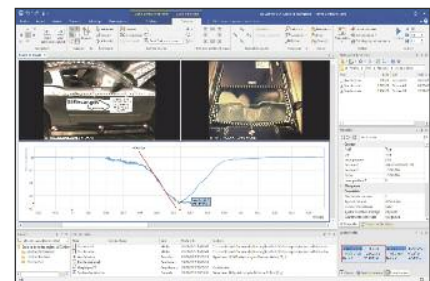
You can choose from different versions of FlexPro, allowing you to tailor the software to your needs.



FlexPro VIEW
The ideal solution for presenting your measurement data



FlexPro STANDARD
The powerful combination of analysis and presentation



FlexPro PROFESSIONAL
The perfect platform for teamwork
FlexPro DEVELOPER SUITE
The complete solution for you at an attractive price

Mini dataloggers with display

SeframLOG

Features

- ALCD, 3 digit
- Temperature measurement and record (LOG1601, LOG1620) from -40°C to +85°C
- Relative humidity measurement and record (LOG1620) from 0% to 95%
- Memory: 50,000 measurements
- Programmable alarms
- Built-in hanging system
- Supplied with PC software and USB cord



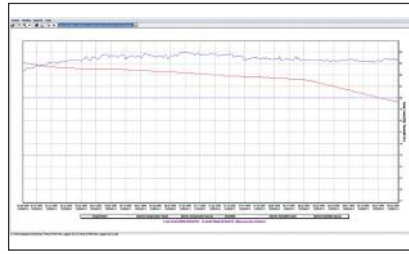
SeframLOG 1620



SeframLOG 1601

Main functions of the PC software:

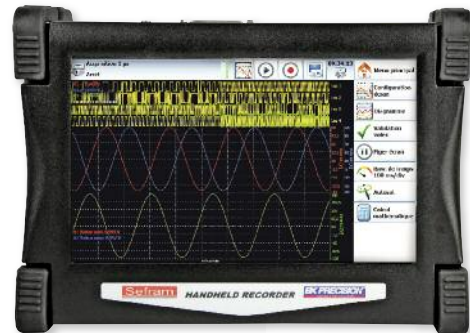
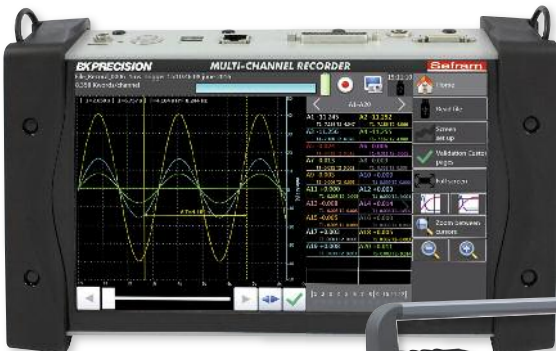
- Set up of SEFRAMLOG 1601 or 1620
- Download of records, erase records
- Display of records, with zoom and cursors
- Export of data to Excel™
- Graph and data printing



Time	Temp	RH	Alarm	Record
12:00:00	20.0	65	0	1
12:01:00	20.1	65	0	1
12:02:00	20.2	65	0	1
12:03:00	20.3	65	0	1
12:04:00	20.4	65	0	1
12:05:00	20.5	65	0	1
12:06:00	20.6	65	0	1
12:07:00	20.7	65	0	1
12:08:00	20.8	65	0	1
12:09:00	20.9	65	0	1
12:10:00	21.0	65	0	1
12:11:00	21.1	65	0	1
12:12:00	21.2	65	0	1
12:13:00	21.3	65	0	1
12:14:00	21.4	65	0	1
12:15:00	21.5	65	0	1
12:16:00	21.6	65	0	1
12:17:00	21.7	65	0	1
12:18:00	21.8	65	0	1
12:19:00	21.9	65	0	1
12:20:00	22.0	65	0	1
12:21:00	22.1	65	0	1
12:22:00	22.2	65	0	1
12:23:00	22.3	65	0	1
12:24:00	22.4	65	0	1
12:25:00	22.5	65	0	1
12:26:00	22.6	65	0	1
12:27:00	22.7	65	0	1
12:28:00	22.8	65	0	1
12:29:00	22.9	65	0	1
12:30:00	23.0	65	0	1
12:31:00	23.1	65	0	1
12:32:00	23.2	65	0	1
12:33:00	23.3	65	0	1
12:34:00	23.4	65	0	1
12:35:00	23.5	65	0	1
12:36:00	23.6	65	0	1
12:37:00	23.7	65	0	1
12:38:00	23.8	65	0	1
12:39:00	23.9	65	0	1
12:40:00	24.0	65	0	1
12:41:00	24.1	65	0	1
12:42:00	24.2	65	0	1
12:43:00	24.3	65	0	1
12:44:00	24.4	65	0	1
12:45:00	24.5	65	0	1
12:46:00	24.6	65	0	1
12:47:00	24.7	65	0	1
12:48:00	24.8	65	0	1
12:49:00	24.9	65	0	1
12:50:00	25.0	65	0	1
12:51:00	25.1	65	0	1
12:52:00	25.2	65	0	1
12:53:00	25.3	65	0	1
12:54:00	25.4	65	0	1
12:55:00	25.5	65	0	1
12:56:00	25.6	65	0	1
12:57:00	25.7	65	0	1
12:58:00	25.8	65	0	1
12:59:00	25.9	65	0	1
13:00:00	26.0	65	0	1

Delivered with: USB cable, software, battery and user manual

Applications: Temperature and humidity monitoring, HVAC monitoring, fridge temperature monitoring, heating system monitoring, cold chain,.....



Data Acquisition Solution Accessories

Current clamp

- SP 201 - Current clamp (200 AAC, 10 mV/1A, ø 15 mm)
- SP 221 - Current clamp (10 AAC, 100 mV/1A, ø 15 mm)
- SP 230 - Current clamp (1200 AAC, 1 mV/1A, ø 50 mm)
- SP 261 - Current clamp (1200 AAC+DC, 1 mV/1A, ø 50 mm)
- SP 270 - Current clamp (2000 AAC, 1 mV/1A, ø70 mm)
- A1587 - Flex current clamp (30A / 300A / 3000A) AC

Shunts

- 910007100 - 0,01Ω, 1%, 3A max, with banana connectors
- 910007200 - 0,1Ω, 1%, 1 Amax, with banana connectors
- 989006000 - 1Ω, 0,1%, 0.5A max, with banana connectors
- 912008000 - 10Ω, 0,5%, 0.15A max, with banana connectors
- 989007000 - 50Ω, 0,1%, 50mA max, with banana connectors
- 207030301 - 0,01Ω, 0,5%, 30A max, with banana connectors
- 902406500 - 50Ω, 0,1%, for DAS240

Carrying cases

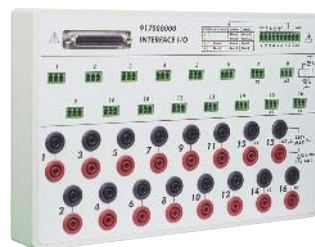
- LCLDR - carrying case for DAS1800
- 916008000 - carrying case for DAS1700/8460
- 916008500 - carrying case for DAS 1700 with extension
- 984605000 - carrying case for 8460
- 902408000 - carrying case for DAS240

Logical inputs

- 902407000 - 16-channel logic cable
- 917008000 - 16-channel logic adapter box



902407000 - 16-channel logic cable



91700800 - 16-channel logic adapter box

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