

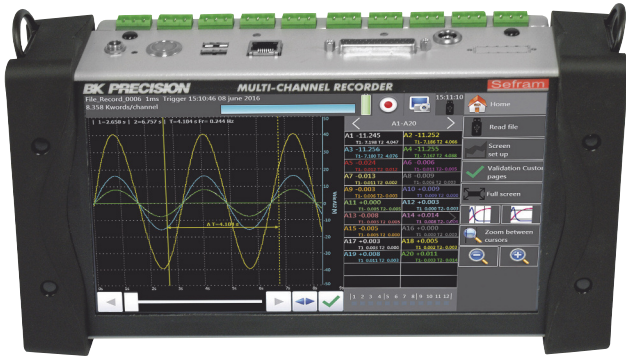


SEFRAM DAS 220

10 Channel Handheld Universal Datalogger

Capabilities

- 10 analogue channels
- Input : voltage, thermocouple, Pt100-1000, current (with optional adapter), resistance
- Voltage: from 1mV to 200V ($\pm 100V$)
- Temperature: thermocouples (all types), Pt100/Pt1000 (2 or 3 wires)
- 16 Bit vertical resolution
- Max sampling rate: 1ms (1kHz)
- 12 logical channels
- 4 alarms (output)
- 4 logical function input with counter & frequencymeter capability
- 10" TFT panoramic touch screen
- Internal hard drive : 32 GB
- Interfaces: USB, Ethernet, WiFi (option)
- Lithium-ion battery (factory option) : 15h autonomy
- DasLab software (license free)
- Safety: IEC61010 CAT I 100V



DAS 220

A 10 channel handheld universal datalogger dedicated to process

The new DAS220 has been designed to measure all parameters you can find in a process: voltage measurements, measurements on sensors (0-10V), temperature measurements (thermocouple, Pt100-Pt1000), current measurements (with optional shunt), resistance measurement, counter, frequency. You can view directly the results of measurements (graphs, numerical values) and memorize your results in the recorder memory or in a USB memory stick. The data transfer and data processing can be done later with a personal computer using the licence free DasLab software.

User-friendly interface

The DAS220 is equipped with a panoramic 10" touch screen: the user interface becomes absolutely interactive. The icons and symbols used makes the browsing very easy and will save your time.

Multiple applications

- The DAS220 is really a general purpose datalogger for process applications:
- multi channel temperature monitoring and recording
 - 0-10V sensors monitoring and recording
 - voltage measurements
 - pulse counting
 - 4-20mA measurement and monitoring (with optional shunt).

Selection guide

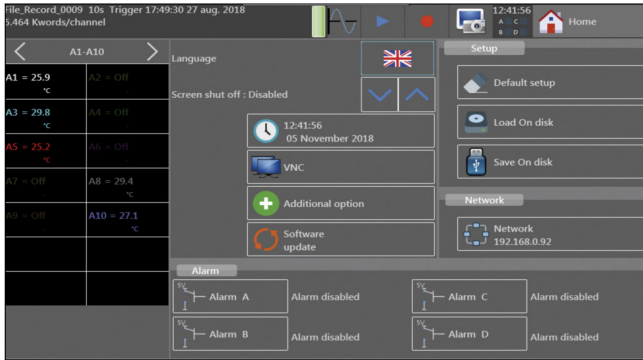
	DAS220	DAS220BAT
100 analogue multiplexed channels	●	●
12 logical channels input	●	●
Internal battery (8h autonomy)	-	●
WiFi interface (USB dongle)	option	option





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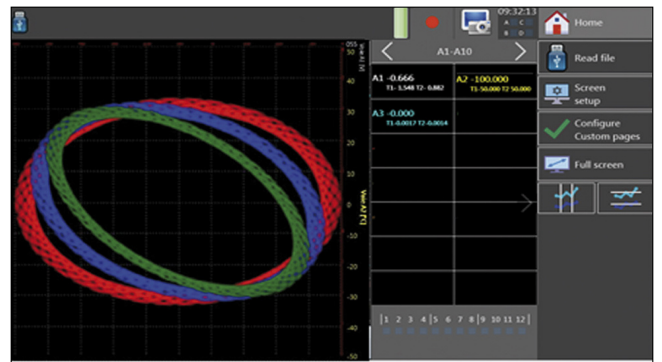
Setup: self-explanatory icons to guide the user

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	Without filter	Without filter	Without filter	Without filter	Without filter	Without filter	Without filter	Without filter	Without filter	Without 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	10 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.	5 V	5 V	5 V	5 V	5 V	5 V	5 V	5 V	5 V	5 V	Max.
Min.	-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

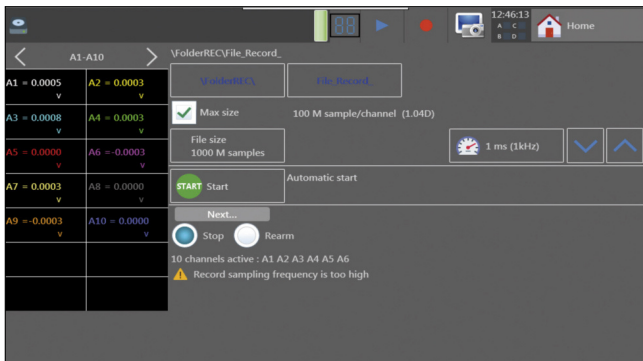
Channels setup: all parameters can be displayed on a single screen

CH	Value	Min	Max	CH	Value	Min	Max
Channel A1	= 0.0008	-0.0337	5.0000	Channel A6	= 0.0002	-5.0000	0.0011
Channel A2	= 0.0002	-5.0000	0.0012	Channel A7	= 0.0000	-5.0000	0.0011
Channel A3	= 0.0003	-5.0000	2.0523	Channel A8	= 0.0003	-5.0000	2.6462
Channel A4	= 0.0005	-5.0000	0.0012	Channel A9	= 0.0008	-5.0000	0.0011
Channel A5	= 0.0002	-5.0000	2.3338	Channel A10	= 0.0000	-5.0000	5.0000

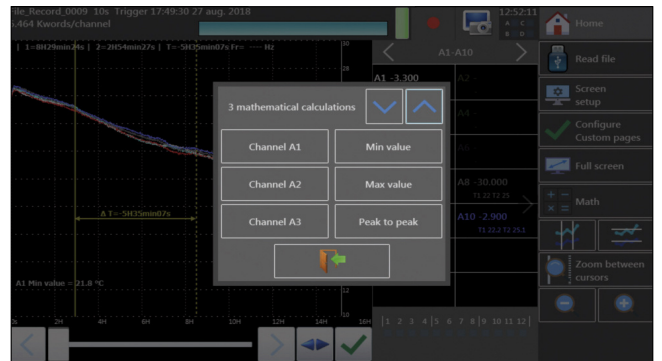
Numerical display of measurements



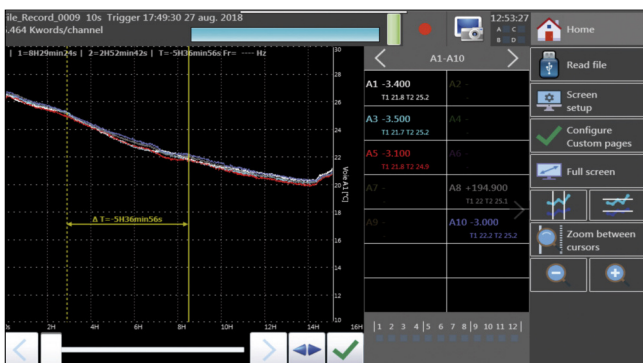
XY mode



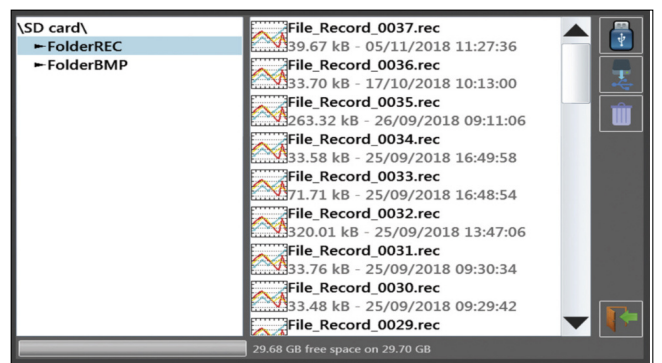
Trigger: multiple choice and combination of threshold, channels and conditions



Math calculation between channels



Measurement display with zoom and cursors



File management with the DAS220



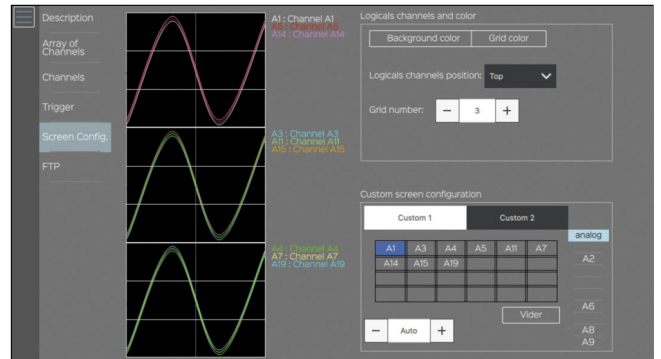
SEFRAM DasLab Software

The new DasLab software for PC (under Windows) is suitable for:

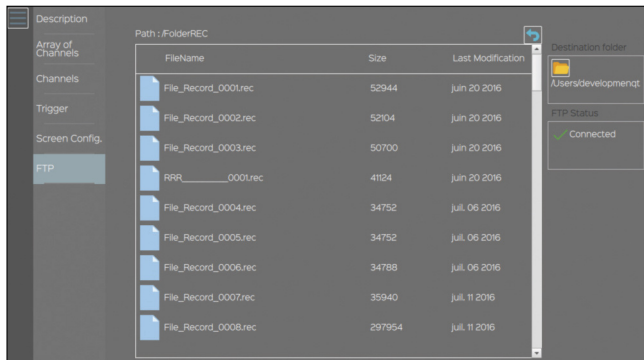
- Managing device setup (online & offline)
- Remote setup of the DAS220
- Managing & downloading files (records, setup) from the recorder

DasLab is a licence free software and can be downloaded from Sefram website.

The link between your DAS220 and your computer can be set up through the Ethernet interface or the WiFi interface (option).



DasLab : Remote setup

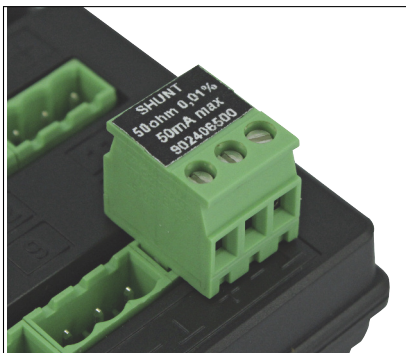


DasLab: files management

Description	CH	Channel Name	Actif	Type	Filter	Range	Zero	Position
Array of Channels	analog							
Channels	A1	Channel A1	<input checked="" type="checkbox"/>	Tension	<input type="checkbox"/> 1.00 Hz	10 V	0 V	0 %
Channels	A2	Channel A2	<input checked="" type="checkbox"/>	Tension	<input type="checkbox"/> 1.00 Hz	10 V	0 V	0 %
Channels	A3	Channel A3	<input checked="" type="checkbox"/>	Shunt	<input type="checkbox"/> 1.00 Hz	10 A	0 A	0 %
Channels	A4	Channel A4	<input checked="" type="checkbox"/>	Resistance	<input type="checkbox"/> 1.00 Hz	10 Ω	0 Ω	0 %
Channels	A5	Channel A5	<input checked="" type="checkbox"/>	Tension	<input type="checkbox"/> 1.00 Hz	10 V	0 V	0 %
Channels	A6	Channel A6	<input checked="" type="checkbox"/>	PT1000	<input type="checkbox"/> 1.00 Hz	10 °C	0 °C	0 %
Channels	A7	Channel A7	<input checked="" type="checkbox"/>	PT100	<input type="checkbox"/> 1.00 Hz	10 °C	0 °C	0 %
Channels	A8	Channel A8	<input checked="" type="checkbox"/>	Tension	<input type="checkbox"/> 1.00 Hz	10 V	0 V	0 %
Channels	A9	Channel A9	<input checked="" type="checkbox"/>	Tension	<input type="checkbox"/> 1.00 Hz	10 V	0 V	0 %
Channels	A10	Channel A10	<input checked="" type="checkbox"/>	Thermocouple	<input type="checkbox"/> 1.00 Hz	10 °C	0 °C	0 %
Channels	A11	Channel A11	<input checked="" type="checkbox"/>	Tension	<input type="checkbox"/> 1.00 Hz	10 V	0 V	0 %

DasLab: channels setup

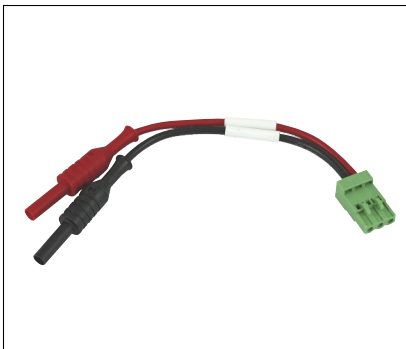
Optional accessories for all uses



P/N: 902406500
Shunt 50 Ohms for current measurements 4-20mA



P/N: 902407000
Cord for logic channels



P/N: 902407100
Connecting cord with female banana plugs



P/N: 902408000
Carrying case for the device and its accessories



SEFRAM DAS 220

10 Channel Handheld Universal Datalogger

TECHNICAL SPECIFICATIONS

Number of channels: 10 channels,

INPUT SPECIFICATIONS

DC Voltage

Ranges: 1mV ($\pm 0,5mV$) to 200V ($\pm 100V$)
Maximum input voltage: 100V DC
Accuracy: 0,1% of the full scale $\pm 10\mu V$

TEMPERATURE WITH THERMOCOUPLES

Sensors	Range
Couple J	-210°C to 1200°C
Couple K	-250°C to 1370°C
Couple T	-200°C to 400°C
Couple S	-50°C to 1760°C
Couple B	200°C to 1820°C
Couple E	-250°C to 1000°C
Couple N	-250°C to 1300°C
Couple C	0°C to 2320°C
Couple L	-200°C to 900°C

Cold junction compensation: $\pm 0,5^\circ C$

TEMPERATURE WITH Pt100 - Pt1000

Current: 1mA (Pt100) & 100 μA (Pt1000)
Range: -200°C to 850°C
Measurements: 2 and 3 wires
Accuracy (at 20°C): 0,3°C $\pm 0,1\%$ of reading
Compensated resistance with 2 wire: 30 ohms max.
Compensated resistance with 3 wires: 50 ohms max

RESISTANCE

Ranges: 1k Ω and 10k Ω
Accuracy: 1 Ω (range 1k Ω) and 10 Ω (range 10k Ω)

ACQUISITION - SAMPLING

Resolution: 16 bit
Acquisition system: scanner, one sample per channel
Sampling rate: 1ms to 20mn for V >50mV
2ms to 20mn for V $\leq 50mV$,
thermocouples & Pt100-Pt1000
date, delay, threshold, combination
of thresholds (and/or),
word on logical channels (and, or, slope, level)
variable from 0 to 100k samples

Trigger:

Pre-trigger :

ADDITIONAL I/O

Logical channels
Number: 12
Maximum permitted voltage: 24V Cat I
Input impedance: 4,7k Ω
Sampling rate: 1ms max.

LOGICAL FUNCTION INPUT

Number of channels: 4 (K1 to K4)
Maximum permitted voltage: 24V Cat I
Input impedance: 4,7k Ω
Sampling rate: 1ms max.
Pulse counter: 0 to 10000000
Frequency measurement: 1Hz to 10kHz

ALARMS (OUTPUT)

Number: 4 alarms (A, B, C, D)
Output level: 0-5V

Supplied with: a main adaptor 100/240V, manual (CD-ROM), 1 male connector with 25 pins mâle and cover, connectors, a stylus, a soft wipe, a screwdriver.

For ordering the DAS220 with internal battery: DAS220 BAT

INTERNAL STORAGE

Internal flash drive size: 32GB min
Maximum file size: 2GB

INTERFACES

USB: 2 x USB type A
Ethernet: 10/100base-T with RJ45 socket
Wifi: with optional USB dongle

GENERAL SPECIFICATIONS

Display: 10" TFT touch screen LCD, backlighted,
1024 x 600 dots
Power supply: 15V / 4A max with main adapter (100/240VAC)
Battery: factory option, non removable, Lithium-ion
Autonomy with battery: 15h with standby mode, 10h without
stand-by mode
Operating temperature: 0°C to 40°C, 80% RH (no condensation)
Storage temperature: -20°C to 60°C
Dimensions: 210 x 295 x 105mm
Weight: 2,5kg
Safety: Cat I 100V, according to IEC61010-1
Warranty: 2 years

ACCESSORIES AND OPTIONS

Rugged carrying case: P/N: 902408000
Wifi option (USB dongle): P/N: 902402000
12 isolated logical channels : P/N: 984405500
Logical channels patch cord: P/N: 902407000
4-20mA / 50 ohms shunt: P/N: 902406500
19" rackmount kit: P/N: 902209000
Din mount kit: P/N: 902201000



FTDAS220A00 - Specifications can be updated without notice



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