

Sefram

A new recorder generation :

- 2 channels and 8 logical channels
- Universal inputs : VDC/TRMS AC+DC, Current*, Thermocouples
- 3 working modes : recorder, oscilloscope, multimeter
- Bandwidth : 100 kHz
- Resolution : 14 bits
- Max. sampling frequency: 1 Ms./s per channel
- Calculation and mathematical functions
- Internal memory : 1Mb
- Massive storage memory : compact flash*
- Built-in RS 232 Interface for external printer.
- Power supply for external sensors
- High safety level for industrial applications : IEC 1010, CAT.III, 600 V
- PC software : Sefram VIEW (Windows™ compatible)

* option

DAS 1200

RECORD, MEASURE AND DISPLAY

The new SEFRAM recorder is a unique high performance Instrument for all your industrial and maintenance applications.

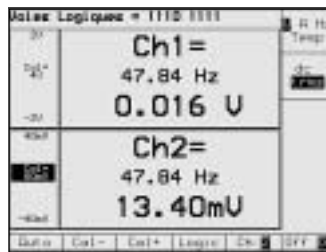
A state-of-the-art recorder,

it features all acquisition and trigger modes provided on high end recorders SEFRAM 8420 and DAS1000. The 100kHz bandwidth will allow all types of records. For long acquisition, the instrument has a compact flash memory interface.



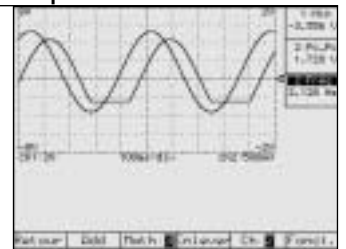
2 isolated input multimeter

You can measure with total safety 2 signals DC or TRMS (AC+DC) : the 2 channels are fully isolated. The large display will provide 4 different measurements simultaneously.



Safety oscilloscope

To capture all your signals of your electrical applications, the DAS1200 will be ideal companion. It includes 17 mathematical functions to help you analyzing complex waveform.



Design and easy-to-use

The DAS1200 was designed to be easy to use, even at first time operation. Each button is associated with one function. The «Replay» function help you to instantly display your records.



Sefram view

Graphic display
Transfert of curves and data to Excel® and Word®.

GENERAL SPECIFICATIONS**RECORDER / OSCILLOSCOPE / MULTIMETER**

Channels :	2, isolated
Measure. :	VDC
offset :	by software
accuracy :	$\pm 0.2\%$ of range $\pm 10 \text{ ?V} + 0.2\%$ of offset
Measure. :	VTRMS (AC+DC)
Ranges :	10 mV/div to 200 V/div
Bandwidth :	45 Hz to 500Hz
Crest factor :	4

FRÉQUENCYMETER

Sensitivity :	300mV min.
Max. offset :	$\pm 4\text{V pp}$
Duty cycle :	10% min.
Range :	20Hz to 30KHz
Accuracy :	$\pm 0,2\%$

TEMPERATURES

Cold junction compensation accuracy : $\pm 1 \text{ }^\circ\text{C}$

THERMOCOUPLES

Thermocouples :	capteurs	Domaine d'utilisation.
	J	-200°C à 850°C.
	K	-210°C à 1200°C.
	T	-200°C à 400°C.
	S	-50°C à 1760°C.
	B	-200°C à 1820°C.
	E	-250°C à 1000°C.
	N	-250°C à 1300°C.
	W	0°C à 2320°C.

SAMPLING

Resolution (vertical) :	12 bits
Sampling rate : max. :	1MS/s per channel
Sampling period :	1 μs to 10 mn
Memory length :	1MB segmentable in up to 128 blocks
Triggering :	positive or negative edge, logical input, delay, event, Go No Go
Pre-trigger :	-100% to +100%

BANDWIDTH

Analog inputs:	100 kHz (range > 10 mV/div) 40 kHz (range < 10 mV/div)
Programmable filters :	10 Hz, 100 Hz, 1KHz, 10KHz
Input impedance (DC):	>25 M Ω for ranges <200mV/div 2 M ohms for other ranges
Input capacitance :	150 pF typ.
Max. Volt. inputs :	between 1 channel and the instrument. ground: $\pm 500\text{V}$ between 2 inputs: $\pm 500\text{V}$ Isolation between analog ground and chassis > 100M ohms

LOGIC INPUTS

Channels :	8 floating
TTL level - Maximum input :	$\pm 24\text{V}$
Available functions :	triggering of one acquisition on logical words, alarm
Sensor supply :	available on Sub-D connector (9V/100mA max.)
Alarms :	static relay (48V/100mA max.)
External printer :	screen hardcopy

Display :

B&W LCD screen with backlit	
Resolution :	320 x 240 dots
Mode :	F(t), zoom, cursors, ΔV , Δt , zoom between cursors
Automatic measurements :	F, T, Vpp, Vmax (17 functions)
Data storage :	Compact flash card interface
Compact flash memory :	256 M \bullet , 512 M \bullet (option)
Interfaces :	RS 232C
Supply :	9V DC on jack
Power consumption :	1,5A max.
Dimensions & Weight :	210 x 344 x 80 mm; 1 kg

OSCILLOSCOPE MODE - SPECIFIC CHARACTERISTICS

Display mode :	refresh
Autoset :	yes
Time base :	50 $\mu\text{s}/\text{div}$ to 20mn/div 0 $\mu\text{s}/\text{div}$ to 20 mn/div

MULTIMETER MODE - SPECIFIC CHARACTERISTICS

Type :	4 digits, with 1/1000 resolution
DC voltage resolution :	10 μV
AC voltage resolution :	2mV
Autorangeing :	yes
Rate :	2 mes/s.
Display :	4 different measurements

FOR ORDERING

DAS 1200 - Supplied with : a set of safety test leads (SA221), an AC adapter

✓ Optional accessories

202210720 - Battery (Ni/Cd)
202290000 - Fast charger
912006000 - Deluxe protective pouch
912005000 - Carrying case
984167900 - Compact flash card (256M)
984205000 - External Compact flash module for PC (USB)
978328000 - Portable thermal printer
978370000 - Connection kit for printer
912007000 - Special cord for logic inputs (banana)

