

Sefram  
Sefram

# SEFRAM

---

## DAS 600SV

### **6 CHANNELS PAPERLESS RECORDER FOR SPECIAL ENVIRONMENTAL CONDITIONS**

- 6 analogue channels
- Universal isolated inputs
- DC Voltage, TRMS AC+DC,
- Frequency, Thermocouples
- 16 logic channels
- Power Analysis fonction
- 14 Bit resolution
- Colour LCD TFT screen (12")
- Max. sampling frequency : 1Ms/s par channel
- Bandwidth: 100 kHz
- Memory : 32 Mword
- Internal hard disk : 80 Gb
- Interfaces: USB, XGA, Ethernet
- IEC 1010 - CAT III - 600V
- No fan : can be used in special environmental conditions

2008  
**NEW**  
- Includes Power Analysis



**DAS 600SV : New design**

#### **UNIVERSAL INPUTS**

The DAS 600SV is configured with 6 analogue channels and 16 logical channels. The input board is suitable for all applications (voltage DC and AC, frequency, temperature).

#### **EASE OF USE**

DAS 600SV are the easiest to use recorders on the market today. The concept of previous families has been maintained, but now backed by the Linux operating system. All parameters are displayed on the screen. With the mouse, you can access and change functions and parameters. A help screen is provided for each function.

#### **DATA ACQUISITION AND INTERFACES**

DAS 600SV offers various storage options: internal hard disk (80GB), external USB flash memory (USB key), USB storage devices (CD/DVD writer, external hard disk,...). You can save your records and the recorder parameters (setup). The Ethernet interface provides fast and efficient remote control of the recorder and will allow very fast transfer of data files to personal computers.

#### **PANORAMIC LCD SCREEN**

The high resolution LCD screen provides excellent quality real-time graphical display, even in difficult conditions.

#### **COMPLETE SOFTWARE**

SEFRAM View displays graphs on your personal computer as well as export to a spreadsheet (Excel™) or word processor (Word™).

Flexpro software (option): Powerful analysis software with more than 100 functions.

#### **REAL TIME ACQUISITION ON HARD DISK**

For long recording, the DAS600 provides direct acquisition onto the internal hard disk – up to 100kHz for 6 channels simultaneously.

Dedicated to special environmental conditions.

The DAS 600SV has been designed for use in special difficult environmental conditions: no forced air cooling (no fan used), which means that the dust is not "ingested" by the instrument. This specific feature is mandatory for many industrial applications.



## SPECIFICATIONS - UNIVERSAL INPUT BOARD

Channels : 6 per board

### VOLTAGE

DC voltage ranges: 1mV to 1000 V  
 Max offset:  $\pm 5$  ranges (except 1000V)  
 Accuracy:  $\pm 0,1\% \pm 10\mu V \pm 0,2\%$  offset  
 TRMS AC+DC ranges: 200mV to 500V.  
 Bandwidth (-3dB): 5Hz to 500Hz  
 Crest factor : 2,2

### FREQUENCY

Sensitivity 300mV rms min.  
 Duty cycle 10%  
 Frequency range 10Hz to 100kHz  
 Basic accuracy 0,2% of full scale  
 Maximum input voltage  $\pm 500VDC$  or 440V AC (sine)

### TEMPERATURE

Sensor	Using environment	Ranges
J	-20°C to 1200°C	20°C to 2000°C
K	-250°C to 1370°C	20°C to 2000°C
T	-200°C to 400°C	20°C to 500°C
S	-50°C to 1760°C	50°C to 2000°C
B	-200°C to 1820°C	50°C to 2000°C
E	-250°C to 1000°C	20°C to 1000°C
N	-250°C to 1300°C	20°C to 1000°C
W5	0 to 2320°C	50°C to 2000°C
Accuracy	Cold junction compensation : $\pm 1,25^\circ C$	

### SAMPLING

Resolution 14 Bit  
 Sampling rate 1M sample/sec per channel max.  
 Memory length 32Mword in segments of up to 128 Blocks  
 Triggering Positive edge, negative edge, on logical input, delay, Go No Go.  
 Pre trigger -100% to +100%

### BANDWIDTH

Analog input bandwidth (-3dB) : range > 1V: 100kHz  
 range  $\leq 50mV$ : 50kHz  
 10 Hz, 100 Hz, 1 kHz, 10 kHz  
 Programmable digital filters :  
 Input impedance (DC) :  $>25M\Omega$  for range <1V  
 1 M $\Omega$  for upper ranges  
 Input capacitance : 150pF typ.  
 Maximum input voltage : between one channel and the frame ground  $\pm 500V$  between 2 terminals of one channel  $\pm 500V$   
 $>100M\Omega$  at 500VDC  
 Isolation between frame ground and channel

### LOGIC INPUT

Channels 16  
 TTL - Max voltage 24V  
 Available functions triggering acquisition on alarm  
 triggering on logical words  
 acquisition in memory mode  
 4, 8, 16 channels paper trace

Sensor supply 12 V DC  
 Alarms 3 (2 TTL , 1 relay)

### FOR ORDERING

SEFRAM DAS600 Recorder with 6 channels (universal input)



## POWER ANALYSIS FUNCTION

*This function is available only if your recorder has a 6 universal input board + internal software  $\geq V2.0$*

<b>Networks</b>	Single phase, 2 phases, 3 phases
<b>Display</b>	Fresnel diagram, oscilloscope, data
<b>Measurements</b>	mean value, RMS value, peak value, crest factor, THD and DF for voltages and currents active, reactive and apparent power power factor (cos $\Phi$ )
<b>Harmonics</b>	calculated up to rank 50, with display and record

## GENERAL SPECIFICATIONS

### DISPLAY

Screen : TFT LCD coloured screen 12 inches f(t) and XY functions  
 Zoom, cursors, dV,dT and zoom between cursors  
 Calculation functions :  $y=ax+b$  ,  $y=x/x+b$  ,  $y=a\sqrt{x+b+c}$  ,  $y=ax^2+b$  ,  $y=(\log x)+b$  ,  $yae^{x+b}+c$   
 Automatic measurements +, -, x, / between channels  
 20 automatic measurements ( F, T, Vpp, Tm.....)

### STORAGE

Setup backup : 16 named in RAM, unlimited on the hard disk  
 Internal hard disk : 80 Gb.  
 Interfaces 4 USB ports, VGA, Ethernet

### MISCELLANEOUS

Power supply 85VAC to 264 VAC, 47Hz to 63 Hz  
 Max. consumption: 60W  
 Dimensions & weight 384 x 445 x 195 , 7.5 kg  
 Operating temperature range 0°C to 40°C  
 Cooling system Internal convection – No fan  
 Storage temperature range : -20°C to 60°C  
 Max. RH 80% (without condensation)  
 Warranty period 1 year  
 Safety CEI 1010 CAT III , 600V

## OPTIONAL ACCESSORIES

- 984407000 Carrying case
- 910008100 Flexpro software (basic)
- 910008200 Flexpro software (comprehensive)
- 298504246 Ethernet cable (crossed - 5m)
- 910007100 shunt - 0,01 ohm 1% 3A
- 910007200 shunt - 0,1 ohm 1% 1A
- 207030301 shunt - 0,01 ohm 0,5% 30A
- 207030500 shunt - 0,001 ohm 0,5% 50A
- 989006000 shunt - 1 ohm 0,1% 0,25W
- 989007000 shunt - 50 ohms 0,5% 0,25W
- 984405500 isolated logical channels adaptor

Specifications subject to change without notice - FT DAS600SV A 00



32, rue Edouard Martel  
 B.P. 55 • 42009 - St Etienne cedex  
**direct sales lines :**  
**+33 (0).4.77.59.36.81**  
 Fax. +33 (0).4.77.57.23.23  
 Web : www.sefram.fr • e-mail : sales@sefram.fr

## For assistance and ordering

