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SEFRAM

DAS 1400

A NEW FAMILY OF PAPERLESS RECORDERS 6 TO 36 UNIVERSAL CHANNELS TO COVER ALL YOUR APPLICATIONS

- 6 to 36 channels
- Universal inputs
- DC Voltage, TRMS AC+DC,
- Frequency, Thermocouples, PT100.
- 16 logic channels
- 16 Bit resolution
- Colour LCD TFT screen (12")
- Max. sampling frequency : 1Ms/s par channel
- Bandwidth: 100 kHz
- Memory : 32 Mword
- Internal hard disk : 40 Gb
- Interfaces: USB, XGA, Ethernet
- IEC 1010 - CAT III - 600V



NEW

DAS 1400 : New design

UNIVERSAL INPUTS: 2 ALTERNATIVES

The DAS 1400 can be configured with 6, 12, 18, 24, 30 or 36 analogue channels and 16 logical channels. You can choose between two types of input modules:

- 6 universal inputs: Designed for high speed and high voltage applications
- 12 multiplexed inputs

The DAS1400 is very flexible. The user can configure or upgrade the recorder for particular applications with up to three modules. Modules can be added or exchanged without return to the factory.

EASE OF USE

DAS 1400 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

The DAS 1400 offers various storage options: internal hard disk (40GB), 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 DAS 1400 provides direct acquisition onto the internal hard disk – up to 100kHz for 6 channels simultaneously.





DAS 1400

Recorder

SPECIFICATIONS - UNIVERSAL INPUT BOARD

Channels : 6 per board

VOLTAGE

DC voltage ranges : 1mV to 1000 V
Max offset : ± 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 environnement	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 bits
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% à +100%

BANDWIDTH

Analog input bandwidth (-3dB) : range > 1V: 100kHz
range $\leq 50mV$: 50kHz
10 Hz, 100 Hz, 1 kHz, 10 kHz
Programmable digital filters : >25M Ω for range <1V
1 M Ω 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 $\pm 500V$
Isolation between frame ground and channel >100Mohms at 500VDC

LOGIC INPUT

Channels : 16
TTL - Max voltage : 24V
Available functions : triggering acquisition on alarm triggering on logical words acquisition in memory mode
Sensor supply : 12 V DC
Alarms : 3 (2 TTL , 1 relay)

FOR ORDERING

SEFRAM DAS1400/01 Recorder with 6 channels (universal input)
SEFRAM DAS1400/02 Recorder with 12 channels (universal input)
SEFRAM DAS1400/03 Recorder with 18 channels (universal input)
SEFRAM DAS1400/10 Recorder with 12 channels (multiplexed input)
SEFRAM DAS1400/20 Recorder with 24 channels (multiplexed input)
SEFRAM DAS1400/30 Recorder with 36 channels (multiplexed input)
SEFRAM DAS1400/11 Recorder with 18 channels (6 universal input + 12 multiplexed input)
SEFRAM DAS1400/21 Recorder with 24 channels (12 universal input + 12 multiplexed input)
SEFRAM DAS1400/12 Recorder with 30 channels (6 universal input + 24 multiplexed input)

SPECIFICATIONS - MULTIPLEXED BOARD

Channels : 12 per board

VOLTAGE

DC voltage ranges : 1mV to 50 V
Max offset : ± 5 ranges
Accuracy : $\pm 0,1\% \pm 10\mu V \pm 0,1\%$ offset
TRMS AC+DC ranges : 200mV to 50V.
bandwidth (-3dB) : 5Hz à 100Hz
Crest factor : 2,2

TEMPERATURE

Sensor	Using environnement	Ranges
PT100 (2,3,4 wires)	-200°C to 850°C	20°C to 1000°C
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 : 16 Bits
Sampling rate : 200 μs maxi.
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) : 1 kHz at -3 dB
Programmable digital filters : 0,1Hz, 1Hz,10Hz,100Hz
Input impedance (DC) : 2 Mohms ranges >5V
10Mohms for other ranges
Input capacitance : 150pF
Maximum input voltage : between one channel and the frame ground $\pm 50V$ between 2 terminals of one channel $\pm 50V$ all input are differential, non isolated $\pm 5V$ for ranges $\leq 5V$ $\pm 50V$ for ranges > 5V
Common mode voltage (max.) $\pm 50V$ for ranges > 5V

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 : $y=ax+b$, $y=/x/+b$, $y=a\sqrt{x}+b+c$, $y=ax^2+b$, $y=(\log x)+b$, $yae^{(x+b)+c}$
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 : 40 Gb.
Interfaces : 4 USB ports, VGA, Ethernet

MISCELLANEOUS

Power supply : 85VAC to 264 VAC, 47Hz to 63 Hz
Max. consumption: 60W (non plotting), 230W max.
Dimensions & weight : 384 x 445 x 195 , 7.5 kg
Operating temperature range : 0°C to 40°C
Max. RH : 80% (without condensation)
Storage temperature range : -20°C to 60°C
Warranty period : 1 year
Safety : CEI 1010 CAT III , 600V

OPTIONAL ACCESSORIES

984401000 12 channels multiplexed board for VDC 1mV to 25 V, T°, PT100
984402000 6 channels universal input board for VDC 1mV to 1000V , VAC RMS , T°
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

Specifications subject to change without notice - FTDAS1400 A 00



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For assistance and ordering