

SCREEN500 - 3 / 6 CHANNELS VIDEORECORDER

SCREEN500 Color screen graphic recorder to display, store and analyze measurement data by multiple input. Equipped with a 5" color screen, allowing to represent graphics and display data measured in the vertical scrolling. No paper need. Measured data stored in Flash memory and/or external support or downloaded via PC. The instrument is provided with 3 or 6 input channels, galvanically isolated. Configuration by front panel 8 keys or by PC.

- Graphic and digital data representation in vertical diagrams (with scale, numerical or histograms)
- Representation of events, eg. "Logic inputs"
- Immediate availability of data stored in FLASH memory
- Backup your data on 3.5" diskette formatted
- Device configuration via keyboard or setup program
- Analysis of the data stored by program PCA
- Conversion of the measurement data format for tables or calculation programs
- Search for historical analysis
- Normal operation, events and time



TECHNICAL SPECIFICATIONS

Screen resolution:	320x240Pixel		
Screen Size:	5"		
Number of colors:	27 colors		
Image frequency:	> 150 Hz		
Contrast:	adjustable on the device		
Stand-by:	through waiting time or control signal		
Power supply:	110...240Vac +10/-15%, 48-63 Hz or 20...43Vac 48-63Hz		
Power consumption:	25VA ac		
Electrical connection:	screw terminals rear section. <2.5 mm ² or 2x1.5 mm ²		
Electromagnetic compatibility:	EN 50081-1, EN50082-2, NAMUR recommendation NE21		
Safety norms:	second EN61010		
Protection:	EN60529 cat. 2, front IP54, back IP20		
Casing:	back panel DIN 43700, sheet steel galvanized		
Front dimensions:	144x144 mm 236.5 mm including terminals mounting depth		
Frontal panel cut-out:	138x138 mm. (+1mm)		
Environmental conditions:	temperature 0...45°C, humidity <75%RH not condensation		
Mounting:	in the control cabinet according to DIN43834		
Weight:	about 3,5 kg		
Short circuit / break signal generator		Short circuit	Break
	Thermocouple	not detected	detected
	RTDs	detected	detected
	Voltage <210 mV	not detected	viene rilevato
	Voltage >210 mV	not detected	not detected
	Current	not detected	not detected
Acquisition time:	3 or 6 channels = 250 ms		
Input filter:	digital filter of 2nd order; filter constant adjustable from 0 ... 10 s		
Test voltage galvanic isolation	350 V (via optocoupler)		
Resolution:	> 14 bit		



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ANALOG INPUTS

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Voltage, current	Range measurement base			Accuracy	Resistance input	
	-20...+70 mV			+/-80 µV	1MOhm	
	0...100 mV			+/-100 µV	1MOhm	
	0...200mV			+/-240 µV	470kOhm	
	0...12 V			+/-6 mV	470kOhm	
	0...1 V			+/-1 mV	470kOhm	
	-1...+1 V			+/-2 mV	470kOhm	
	-10...+12 V			+/-12 mV	470kOhm	
	Minimum acceptable value			5 mV		
	Start and full scale value:			freely programmable in steps of 0.01 mV		
	-2...+22 mA			+/-20 µA	load voltage 1V	
	-22...+22 mA			+/-20 µA	load voltage 1V	
	Minimum acceptable value			0,5 mA		
	Start and full scale value:			freely programmable in steps of 0.01 mA		
Thermocouple	Denomination	type	Norm	Range	Accuracy	
	Fe-CuNi	L	DIN43710	-200...+900°C	+/- 0.1%	
	Fe-CuNi	J	DIN EN60584	-210...+1200°C	+/- 0.1% from 200°C	
	Cu-CuNi	U	DIN43710	-200...+600°C	+/- 0.1%	
	Cu-CuNi	T	DIN EN60584	-270...+400°C	+/- 0.1% from 200°C	
	NiCr-Ni	K	DIN EN60584	-270...+1372°C	+/- 0.1% from 200°C	
	NiCr-CuNi	E	DIN EN60584	-270...+1000°C	+/- 0.1% from 200°C	
	NiCrSi-NiSi	N	DIN EN60584	-270...+1300°C	+/- 0.1% from -100°C	
	Pt10Rh-Pt	S	DIN EN60584	-50...+1768°C	+/- 0.1% from 500°C	
	Pt13Rh-Pt	R	DIN EN60584	-50...+1768°C	+/- 0.1% from 500°C	
	Pt30RhPt6Rh	B	DIN EN60584	0...+1820°C	+/- 0.1% from 400°C	
	W3Re/W25Re	W3		0...+2400°C	+/- 0.15%	
	W5Re/W25Re	W5		0...+2320°C	+/- 0.15%	
	Minimum acceptable value			tipo L, J, U, T, K, E, N 100°C; S, R, B, W3, W5 500°C		
Start and full scale value:			freely programmable in steps of 0.1 °C			
Internal temperature compensation:			Accuracy +/- 1 °C			
External temperature compensation:			-50...+150°C with Setup Software			
RTDs	Denomination	Norm	Connection	Range	Accuracy	Current
	Pt100	DIN EN60751	2/3 wires	-200...+100°C	+/-0,5°C	500 µA
			2/3 wires	-200...+850°C	+/-0,9°C	250 µA
			4 wires	-200...+100°C	+/-0,5°C	500 µA
			4 wires	-200...+850°C	+/-0,6°C	250 µA
	Pt100	JIS	2/3 wires	-200...+100°C	+/-0,5°C	500 µA
			2/3 wires	-200...+650°C	+/-0,9°C	250 µA
			4 wires	-200...+100°C	+/-0,5°C	500 µA
			4 wires	-200...+650°C	+/-0,6°C	250 µA
	Ni 100		2/3 wires	-60...+180°C	+/-0,5°C	500 µA
			4 wires	-60...+180°C	+/-0,5°C	500 µA
	Pt500	DIN EN60751	2/3 wires	-200...+100°C	+/-0,5°C	250 µA
			2/3 wires	-200...+850°C	+/-0,9°C	250 µA
			4 wires	-200...+100°C	+/-0,5°C	250 µA
			4 wires	-200...+850°C	+/-0,6°C	250 µA
	Pt1000	DIN EN60751	2/3 wires	-200...+100°C	+/-0,5°C	500 µA
			2/3 wires	-200...+850°C	+/-0,9°C	250 µA
			4 wires	-200...+100°C	+/-0,5°C	500 µA
			4 wires	-200...+850°C	+/-0,6°C	250 µA
	Minimum acceptable value			15°C		
Start and full scale value:			freely programmable in steps of 0.1 °C			
Conductor resistance sensor - max:			30 Ω /wire (3/4-wire connection) 10 Ω /wire (2-wire connection)			

Options

Logic inputs	Input number	4 in compliance with DIN19240; 1 Hz max, 32V max
	Level	logical "0": 0 ... 5V, logical "1": 20 ... 32V
	Acquisition time	minimum 1 s
	Auxiliary voltage (output):	24V, 30mA (short-circuit proof)
Output	No. 3 relays	SPDT switch (230V, 3A)
Serial interface	RS232 / RS485	for reading data and measurement unit (Modbus)

Operation and configuration

On the instrument	Configuration by 8 keys buttons and menu driven; three perform predetermined functions (Enter, Menu, Exit), five can vary their function and visual representation according to the context. The current functions are displayed at the bottom edge of the screen, so that they are always related to the service that you want to set. A code number protects configuration from unauthorized access.
PC Software setup (optional)	This configuration is easier than the previous one using the keyboard on the unit. The configuration data can be stored on a data carrier (diskette) and read on the screen or transferred to the device via the serial interface (requires cable Setup) or printed.
Language	The operating language can be configured to various countries, such as : German, English, French, Dutch, Italian, Spanish, Hungarian, Czech, Swedish, Polish and Danish. Other languages on request.
Process Program (optional)	<p>The processing program (PCA), which runs under Windows and NT 4.0, you can manage, store, view and process data recorder stored on disk. The data of devices configured in various ways are recognized by the processing program and stored in a database. The complete management is performed automatically. It only introduces an identifier (supplementary description). The user can access at any time to certain data sets, differentiable in the identifier. You can also limit the time fields to process. The analog and digital channels of any type of recorder can then be grouped into so-called PCA groups. Since each group is displayed in its own window, you can view and compare among them several groups. Control via mouse and keyboard. The export filter allows you to export the stored data so it can be processed with other programs (Excel etc.).</p> <p>PCA processing program can be provided in server communication version, so allows several users to access independently to the data from the instrument data base.</p>
Interfaces	The RS232 and RS485 (optional) allow you to read the updated data of the process as well as those specific to the device. Coupled to the processing program PCA allow to also read the archived data (FLASH memory. RS232 interface enables up to 15 meters max cable connexion, RS485 up to 1.2 km max cable along. SUB-D 9-pin serial port on the back unit. MOD-bus and J-bus protocols.



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