

RECORDER

PAPERLESS RECORDER

KONICS

KL-100

The KL100 is the newest addition to the Smart View family of paperless recorders. Westronics introduced the first paperless recorder with touch screen technology in 1996. NOW, the KL100 takes touch screen technology to the next level with Westronics' extensive use of intuitive Windows style menus. The touch screen technology in combination with the easy to use menu structure makes the KL100 easier to program and operate than all other paperless recorders on the market today, The KL100 sets the new standard for DIN Size (144mm X 144mm) paperless recorders.

FEATURES

□ INPUT

The KL100 can accept 6, 12 or 18 inputs. The KL100 is designed with 3 card slots that can accommodate any combination of analog input cards and contact output/digital input cards.

Up to 30 calculated points including custom entry of algebraic equations

All points scanned at 125mS

□ DISPLAY OPTIONS

Inputs and calculated points can be displayed in a wide variety of user-defined formats such as Vertical Trend, Horizontal Trend, Alarm Summary, Overview and/or Bitmap Screens.

"Thumbnails" of all configured screens are on one page eliminating the need to scroll through numerous selections

Point can be programmed to flash or change color on alarm.

Intuitive touch screen and Windows style menus allow straightforward programming and operation without requiring the use of cumbersome function keys and keypads.

Review of historical data is flexible with the touch of the fast forward and rewind buttons.

□ STORAGE MEDIA

8MB internal Flash Memory protects configuration and data from power loss.

16MB Internal RAM permits the operator to search through an extensive amount of historical data effortlessly and without delay.

Removable Storage : 3.5" Floppy disk, ATA flash memory card and Zip disks.

User-selectable for Cyclical or Fill to End mode of storage.

Measured values are saved to media as an average or instantaneous value.

No data is lost during media change.

□ NETWORKING

10 Base-T Ethernet



RS232, RS485 with MODBUS RTU or ASCII as a standard feature. Real time remote monitoring and data backup.

□ ADDITIONAL FEATURES

A standard parallel printer port supports Print Screen, Alarms and/or Time of Day or interval logs.

Event Message feature allows the operator to mark the trend screens with custom messages.

IP65 Front Panel

Modular Compact Design.

SPECIFICATIONS

□ INPUT

6, 12 or 18 isolated inputs

□ TYPE

DC Voltage : Linear and square root programmable to 10 VDC (50mV, 100mV, 200mV, 1V, 5B and 10V bipolar ranges)

DC Current : linear, square root and log programmable to 4-20mA, 10-50mA and dry contact

T/C : J,K,T,E,R,S,B,C, Nicrosil Nisil and Nickel/Nickel Moly

RTD : 10 Ω Cu, 100 Ω Pt 385, 100 Ω Pt 392, 200 Ω Pt 385, 200 Ω Pt 392 and 120 Ω Ni

External : Computer generated

□ Accuracy

Voltage : $\pm 0.05\%$ of programmed range

Current : $\pm 1\%$ Using external shunt resistor

T/C : ± 1.5 for JKTE Nicrosil-Nisil and Nickerl/Cickel

Moly : ± 3 for R,S and C ; ± 4 for B

RTD : $\pm 0.5\%$

□ Resolution

0.006% of Full Scale

□ Impedance

>10M Ω

□ Scan Rates : All points scanned every 125mS

DISPLAY OPTIONS

- The KL100 lets you see data the way you want to see it. You can configure eight different display screens. Each display screen can be defined as one of the ten available display formats including: Vertical Trend with Pen Pointers, Vertical Trend with Bargraphs, Horizontal Trend with Bargraphs, Digital Display, Alarm Summary, Overview, Vertical Bargraph, Horizontal Bargraph, and bit Map. In each display format, the user has total flexibility regarding color assignment to insure maximum visibility.

RECORDING

- Rates**
8 Samples/Second to 1 Sample/Minute
- Format**
ASCII or Binary
- Internal Memory**
16MB of RAM and 8MB of Flash
- Storage media**
3.5" Floppy disk, PCMCIA ATA flash or Zip disk
- Data Saving method**
Data may be saved to disk as instantaneous value or average
- Data Saving Selection**
Each screen may be saved to media based on a user-defined interval or trigger.
- File Type**
Data file(per screen basis), Alarm/Event file, Configuration file

DISPLAY

- Type**
5.5" Color active Matrix TFT LCD(320 240)
- Display modes**
Up to 8 user defined screens(Vertical Trend, horizontal Trend, Bargraph, Overview, Alarm/Event Summary, Bitmap Display)
- Display colors**
Up to 16 colors
- Update Rate**
125mS
- Virtual Chart Speed**
User programmable in inches or mm per hour
- Virtual Chart Scales**
User programmable

MATH PACKAGE

Algebraic Equations, Conditional, Moving Average, hi/Lo Peak, Timer, Rate of Change, Totalize, Time Average and programmable Linearization Curve.

ALARM FUNCTIONS

- Number of Alarms**
Up to 5 alarm setpoints per point
- Alarm Types**
H,L,Rate,Abnormal
- Contact Output/Input**
6 isolated Form C contacts output and 6 digital inputs per card.
1 amp@250 VAC or 26 VDC
- Deadband/Failsafe**
User Selectable

POWER

- Requirements**
100 to 240 VAC(50 to 60 Hz) or 90 to 125 VDC or 18 to 30 VDC
- Power Fail Protection**
Programmed parameters stored in nonvolatile memory.
Clock battery-backed.
- Transmitter Power Supply**
24 VDC at 120 mA(per input card)

COMMUNICATIONS

- Serial Ports**
Dual RS232/RS485 Communications w/ MODBUS(RTU or ASCII)
Parallel Print, Alarm/Interval/Time of day Logs
- Network Type**
Ethernet(10 Base-T), TCP/IP Protocol
- File Transfer**
Automatic and manual transfer from host computer(FTP Server Protocol)
- FTP Server**
Directory Operation on external storage media. File deletions and information on remaining free space on external storage drive
- Transferable Files**
Data Files Alarm/Event Files. Configuration Files
- Realtime monitoring**
Via Ethernet or serial port

ENVIRONMENTAL

- Temperature**
-10 to 50
- Operating humidity**
10% to 90% RH non-condensing
- Enclosure**
IP65 Front Panel
- Dimensions**
Bezel : 144mmX144mm
Cutout : 138mmX138mm
Depth : 9.25"
- Weight**
7.5 lbs(Estimate : varies depending upon model)

Zip Disk(100MB)						
STARAGE	1Point	2point	3point	4point	6point	12point
8 Samples/Sec	24.1 days	12.5 days	8 days	6.2 days	4 days	2days
1 Sample/Sec	192.8 days	96.4 days	64 days	50 days	32 days	16 days

PROVIEW SOFTWARE

Proview is a powerful Windows cased software application that works in conjunction with the KL 100 to provide;

- Configuration
- Real time data viewing
- Review previously stored data

With the PROVIEW software, recorder configurations are easily generated. Since it follows the same easy to understand menus as the recorder, no additional training is required. Configurations can be downloaded to disk or transferred to the recorder directly using either the serial port or Ethernet port.

The PROVIEW software allows the user to monitor real time data in the same format as the recorder, The user can select from any programmed screen on the recorder.

Historical data can be easily manipulated and viewed using the Proview software. The user has the following choices.

Use the cursor to pinpoint exact values with time and data information

Display each point's data along with associated tag name, engineering units and scales

Search data by value or data/time

Compress graphic files in time

Zoom in on areas of interest

Display data in tabular format with time and data information

Display the time/data and type of each alarm

Export data for easy retrieval into spreadsheets, databases, etc.

Retrieve large files using FTP and the Ethernet interface

System Requiements

Operating System : Window 95, Windows 98

Windows 2000 or Windows NT

Processor : 166 Mhz Pentium or better

RAM : Minimum of 32 MB

NETWORKING

- ETENET**
By using the 10 BASE-T Ethernet adapter, the KL100 can easily be connected to any existing network or allow easy creation of a new network.
By using the FTP client, the KL100 can be programmed to automatically transfer both data files and Alarm/Event files to a server located on the network. If the primary server is down, you can have the files automatically routed to a secondary server.
Data values may also be accessed through the Ethernet Port.
Access passwords prevent any unauthorized connections via the Ethernet connection.

SERIAL COMMUNICATIONS

The KL100 comes standard with a RS232 port and RS485 port. Both ports support MODBUS protocol(RTU or ASCII Slave)
Up to 31 KL100 unit can be connected on a network.

KL100 DATA STORAGE GUIDE

Floppy(1.44MB)						
STARAGE RATE	1Point	2point	3point	4point	6point	12point
8 Samples/Sec	8Hours	4Hours	3Hours	2Hours	1.3hours	30min
1 Sample/Sec	64 Hours	32 Hours	24 Hours	16 Hours	8.8 Hours	4.4 Hours
PCMCIA(200MB)						
STORAGE RATE	1Point	2point	3point	4point	6point	12point
8 Samples/Sec	48.2 days	24.1 days	16 days	12.5 days	8 days	4 days
1 Sample/Sec	1.1 days	192 days	144 days	100 days	64 days	32 days

ORDERING CODE

To order an KL100, choose one selection from each category below and build your model number as shown on model number summary.

A I/O Position 1

- 1 6 Inputs(mV, B, mA, TC)
- 2 6 Inputs(mV, B, mA, TC) w/24 VDC
Transmitter Power Supply
- 3 6 Inputs(mV, B, mA, TC) w/RTD Inputs
- 4 6 Inputs(mV, B, mA, TC) w/24 VDC
Transmitter Power Supply & RTD Inputs
- 5 6 Contact Outputs & 6 Digital Inputs

B I/O Position 2

- 0 None
- 1 6 Inputs(mV, B, mA, TC)
- 2 6 Inputs(mV, B, mA, TC) w/24 VDC
Transmitter Power Supply
- 3 6 Inputs(mV, B, mA, TC) w/RTD Inputs
- 4 6 Inputs(mV, B, mA, TC) w/24 VDC
Transmitter Power Supply & RTD Inputs
- 5 6 Contact Outputs & 6 Digital Inputs

C I/O Position 3

- 0 None
- 1 6 Inputs(mV, B, mA, TC)
- 2 6 Inputs(mV, B, mA, TC) w/24 VDC
Transmitter Power Supply
- 3 6 Inputs(mV, B, mA, TC) w/RTD Inputs
- 4 6 Inputs(mV, B, mA, TC) w/24 VDC
Transmitter Power Supply & RTD Inputs
- 5 6 Contact Outputs & 6 Digital Inputs

D Power Requirements

- 1 100-240 VAC 60 Hz
- 2 100-240 VAC 50 Hz
- 3 90-125 VDC
- 4 18-30 VDC

E Communication Interface

- 1 RS232, RS485, Printer Port
- 2 RS232, RS485, Printer Port
& Ethernet(10 BASE-T)

F Removable Data Storage

- 1 Floppy Disk Drive
- 2 ZIP Drive 100MB
- 3 PC Card(Flash)

G hardware Options

- 0 None
- 1 Handle Kit

- 2 Power Cord (117VAC)
- 3 Handle Kit & Power Cord(117 VAC)

H Qualifications

- 0 None
- 1 Seismic
- 2 EMI/RFI
- 3 Software V & V
- 4 Seismic & EMI/RFI
- 5 Seismic, EMI/RFI, & Software V & V

I option Group1

- 0 None

J option Group2

- 0 None
- X Special

Model number Summary

KL100 – ABC –DEF – GHI – J

Typical KL100 Applications

Utilities

Generator bearing temperatures, Turbine vibration, load dispatch centers

Chemical & Petrochemical

Process temperatures, flows/pressures, tank level, and consumption

Waste Water

Conductivity, temperature, pH

Steel Mills

Rolling mill, blast furnace, and coke oven
Temperatures ; bleeder stack pressure and flow

Aerospace

Temperature monitoring in heat treat furnaces

Plastics

Temperature monitoring of extruders

Air Quality

Temperature, wind direction/speed.SO₂ and NO₂

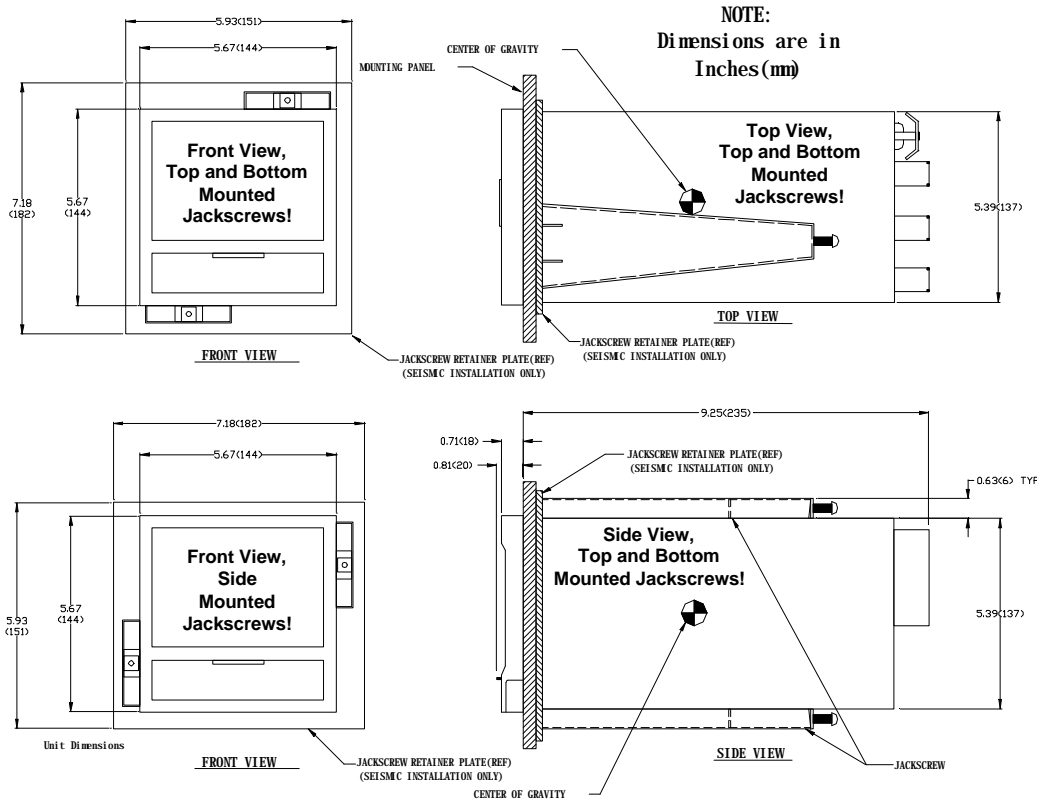
Pharmaceutical

Batch certifications

Pipelines

Flows and pressures

DIMENSION



PANEL CUTOUT

