

# RECORDING AND DATA LOGGING GRAPHIC RECORDERS

## GRAPHIC RECORDER KR3000 SERIES

288 × 288mm

KR3000 Series are network-compatible paperless recorders with high visibility 12.1" TFT color LCD display and touch panel operation system. High speed of sampling rate 100ms for 48 points and high accuracy of  $\pm 0.1\%$  were realized, and measured data is stored into internal memory and maximum 8GB compact flash card (CF card).

As it can be monitored by a web browser display on several computers on intranet or internet, FTP transfer of data file and E-mail notification are also available.

- Large sized 12.1" TFT color LCD display
- Large capacity of data memory and various recording method
- Multi points recording with high speed/high accuracy

### Main Specifications

Measuring points : 12, 24, 36 and 48 channels  
 Input types : DC voltage 10 kinds, DC current (with external shunt resistor), Thermocouple 16 kinds, Resistance thermometer 4 kinds  
 Accuracy ratings :  $\pm 0.1\% \pm 1$  digit (DC voltage input)  
 Rated power voltage : 100 to 240V AC, 50/60Hz  
 Communications : Ethernet, RS232C, RS422A/RS485 (option)



## UBIQUITOUS RECORDER KR5000 SERIES

KR5000 series is a high performance network-based recorder acquiring and logging measurement field data up to 128 channels. Real time trends with web browser can be monitored from any PC connected to the internet and intranet with no software installation. Measured data automatically transferred to a server with e-mail and FTP client function support.

- Monitoring screen designed in the html form
- No software application needed
- Variety of display modes; vertical/horizontal trend digital data, bar graph, alarm condition, group display of 8 screens in one
- E-mail notification at the time of alarm generating
- MODBUS instrument, field scanner, recorder and controller are connectable

### Main Specifications

Input points : Up to 128 points of registered data  
 Input interval : 1 second/all points  
 Group register : Group name, connected instruments number, tag name, unit, input operate (moving average, arithmetic expression)  
 Trend display : Real time or historical trend display  
 Bar graph : Selectable from horizontal and vertical  
 Data display : Data value display and alarm status (the color is selectable)  
 Screen partition display : Screen partition to a maximum of 8  
 Overview : Display measuring data, Alarm status. Renew each 10 seconds.  
 Information display : Alarm, message, file list, etc  
 Setting screen : Ethernet; FTP; E-mail; User ID; Input instrument; clock

## GRAPHIC RECORDER KR2000 SERIES

144 × 144mm

KR2000 Series are network-compatible paperless recorders with high performance and high operating function employed high visibility 5.6" TFT color LCD display. High speed of sampling rate 100ms for 12 points and high accuracy of  $\pm 0.1\%$  were realized, and measured data is stored into internal memory and maximum 8GB compact flash card. As it can be monitored by a web browser display on several computers on intranet or internet, FTP transfer of data file and E-mail notification are also available.

The recorder can be used for various applications such as data management, research, development, remote and wide range monitoring by utilizing internet environment.

- 6 or 12 channels measurement at sampling rate of 100ms
- Simple no-manual operations. Large data memory
- Standard Ethernet connectivity

### Main Specifications

Measuring points : 6 or 12 channels  
 Input types : DC voltage 10 kinds, Thermocouple 35 kinds, Resistance thermometer 8 kinds, DC current (shunt resistors)  
 Accuracy ratings :  $\pm 0.1\% \pm 1$  digit (DC voltage)  
 Rated power voltage : 100 to 240V AC, 50/60Hz  
 Communications : Ethernet, RS232C, RS485 (option)



# HYBRID RECORDERS

## 100mm HYBRID RECORDERS AL3000 SERIES

144 × 144mm

The recorders conforming to CE-marking, UL and CSA are 100mm hybrid recorders for 6-point type and 1 to 4-pen types with a simultaneous display of multi-channel data, bargraph display and other unique features. A software package "KIDS" for data processing of measured values is available.

- Simultaneous digital displays of multi-point data
- Universal input
- MODBUS communications

### Main Specifications

Number of measuring points : 6 points  
 Input signal : 1 pen, 2 pens, 3 pens, 4 pens  
 DC voltage ( $\pm 13.8\text{mV}$  to  $\pm 50\text{V}$ )  
 DC current (Adding shunt resistors)  
 Thermocouple (B, R, S, N, K, E, J, T, others)  
 Resistance thermometer (Pt100, JPt100, others)  
 Accuracy rating :  $\pm 0.1\% \pm 1$  digit (DC voltage input)  
 Chart speed : 1 to 1500mm/h (dotting type)  
 1 to 600mm/h, 1 to 200mm/mim (pen types)  
 Power supply : 100 to 240 VAC  
 Communications : RS232C, RS422A, RS485 (option)  
 Dimensions : 144 × 144 × 243mm (6-points/285mm (1 to 4-pen))



## 180mm HYBRID RECORDERS AH3000 SERIES

288 × 288mm

The recorders conforming to CE-marking, UL and CSA are 180mm hybrid recorders for 6-point, 12-point, 24-point types and 1 to 4-pen types with a simultaneous display of multi-channel data, bargraph display and other unique features.

- Simultaneous digital displays of multi-point data
- Universal input
- The MODBUS communications
- Package software "KIDS" for data acquisition

### Main Specifications

Number of measuring points : 6 points, 12 points, 24 points  
 Input signal : 1 pen, 2 pens, 3 pens, 4 pens  
 DC voltage ( $\pm 13.8\text{mV}$  to  $\pm 50\text{V}$ )  
 DC current (Adding shunt resistors)  
 Thermocouple (B, R, S, N, K, E, J, T, others)  
 Resistance thermometer (Pt100, JPt100, others)  
 Accuracy rating :  $\pm 0.1\% \pm 1$  digit (DC voltage input)  
 Chart speed : 1 to 1500mm/h (dotting type)  
 1 to 600mm/h, 1 to 200mm/mim (pen types)  
 Power supply : 100 to 240VAC  
 Communications : RS232C, RS422A, RS485 (option)  
 Dimensions : 288 × 288 × 247mm

## 250mm HYBRID RECORDER LE5000 SERIES

400 × 260mm

LE5000 series are 250mm hybrid recorders with multi-range input. Innovative design high performance recorder provides high accuracy,  $\pm 0.05\%$ ; high speed sampling, 0.1 second for 36 points and high speed recording, 3 seconds/line. Simple operational keys and PC setting functions drastically improved usability of recording system.

- High speed sampling at 0.1 sec for 36 points and high-speed recording
- Operation keys are functionally designed for ease of use
- High accuracy of 0.05%

### Main Specifications

Number of measuring points : 12, 24 or 36 channels  
 Input signals : DC voltage 8 kinds, Thermocouple 28 kinds, Resistance thermometer 8 kinds, DC current (shunt resistors)  
 Accuracy ratings :  $\pm 0.05\% \pm 1$  digit (DC voltage)  
 Rated power voltage : 100 to 240V AC, 50/60Hz  
 Communications : Ethernet, RS422A, RS485 (option)



# ANALOG RECORDERS

## 60mm ELECTRONIC RECORDERS ES600 SERIES



96 × 144mm

1-point, 2-point, 3-point, 6-point dotting type and 1-pen types are available in the recorders.  
 • Small and light-weight (depth-200mm)  
 • Reliable self-balancing type

## 100mm ANALOG RECORDERS EL3000 SERIES



144 × 144mm

1-point, 2-point 3-point, 6-point dotting types and 1 to 3-pen types are available.  
 • Small and light-weight  
 • Various models and options

## 180mm ELECTRONIC RECORDERS EH SERIES



288 × 288mm

1 to 12-point, dotting types and 1 to 3-pen types are available.  
 • Various options for many applications  
 • High accuracy on 180mm industrial recorders  
 • Robust analog recorders