KR3-H series
High performance Graphic recorder

KR3-H Series are advanced touch screen display (keyless) paperless Graphic Recorder with high performance and high operating function along with high visibility 10.4" TFT color LCD display. Universal input with high speed of sampling rate approx. 1s/All points and high accuracy rating of ±0.1%FS have been realized. Measured data is stored into internal memory and SD card up to 32GB. It can be monitored by a web browser screen on the multiple computers via intranet or internet, and FTP transfer of the data file and E-mail notification are also available.

*Screen is a framed composite image.

■FEATURES

●Improved processing speed.
Processing speed has been improved（Compared to conventional products）, and Screen scrolling, calculations, PDF output (PDF chart specification only) etc. became faster.

●PDF file output of chart is available. (PDF chart specification only)
100mm,180mm,250mm width chart is created in pdf format and can be printed in the same size as the chart paper.

●Easy to store, search, and share chart paper (PDF chart specification only).
Electronic data and PDF charts can be automatically stored on a server or on the cloud, making it easy to access detailed data when needed.

●Clear 10.4-inch TFT color LCD display
A variety of display functions are installed on a display with excellent visibility. In addition to real-time/historical trend display, bar graph display and numerical display can be selected according to the application.

●Large memory capacity and various recording methods
An SD card slot is standard as an external memory. It is capable of recording a large capacity data up to 32GB. You can select a variety of data storage methods, such as schedule recording by day of the week or date and time, recording start by external signal or event, and data recording before and after trigger points such as alarms.

●Stable recording of multiple points with high accuracy and high speed
Achieves high-speed acquisition of approximately 1 s/all points and high accuracy of ±0.1%FS. Stable measurement and recording can be performed even at high speeds. The withstand voltage between the input channels is 1000 V AC (excluding the input of the resistance temperature detector), which is a high withstand voltage.

●Direct writing on the screen
With attached touch pen, comments can be written on the chart.

●USB port on the front
Data saved in the SD card can be extracted to the USB memory stick (max. 8GB USB memory stick) by plugging it into the port.

●LAN network support
By using Ethernet, it is possible to build a system that matches the network environment with a variety of functions such as remote monitoring with a browser, FTP server, and e-mail reporting.

●Application software (TRAMS) for analysis and data acquisition
Easy play back and editing data files collected by the recorder.

■MODELS

KR3□□□H□□□-□□□

Type
S:Standard
D:PDF Chart specification

Measurement point/sampling rate
21:12 Points/1 Sec
41:24 Points/1 Sec
61:36 Points /1 Sec
81:48 Points /1 Sec

Communication interface
G:Ethernet+Low/high order communications RS485(Standard)
E:Ethernet
B:Ethernet+low order communications *1,*2
N:None

Alarm output, Contact input (option)
0:None
2:Mechanical relay output (4points'c'contact)
7:Digital input (4points)
8:Mechanical relay output (2points 'c' contact) +Digital input (2 points)

Installation type
A:Panel mounting type
T:Portable type (Grip and rubber feet attached) *2

Others(Option)
NNN:None
1NN :Custom graphic screen
2NN :High Accuracy Temperature Converter KT-M input *3,*5
3NN : Custom graphic screen +High Accuracy Temperature Converter KT-M input *3,*5
N1N :Barcode reader specifications*2,*4 （Barcode reader is sold separately）
N2N :Barcode recipe specifications*3 （Barcode reader/others are sold separately）
NNP：Past profile reply

*1 Barcode Reader Specification (RS-232C D-Sub9Pin)
*2 Does not comply with CE and UKCA
*3 Only communication interface (option) G can be selected.
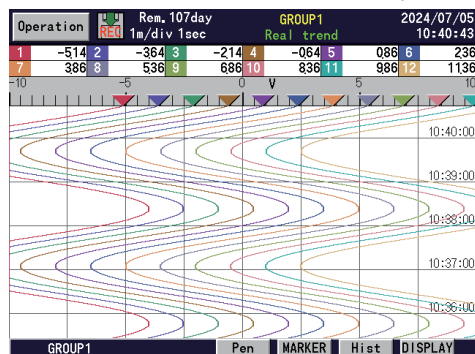*4 Only communication interface (option) B can be selected.
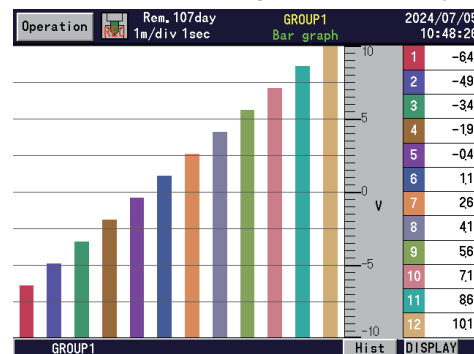*5 Can be selected only when 1st digit is 2 or 3 and second digit in N.

PSE-823A

KR3-H series

■ Screens

●Real time trend screen

Real time trend display of selected group.
Vertical or horizontal trend can be displayed.

●Numerical display

Measured data and alarm status of selected group can be displayed simultaneously.

●Information display

●Writing using touch pen

Letters or illustrations can be directly written on the screen and can also be stored on recording. screen.

●Bar Graph Screen

Bar graph of selected group can be displayed
Vertical or horizontal bar graph can be displayed.
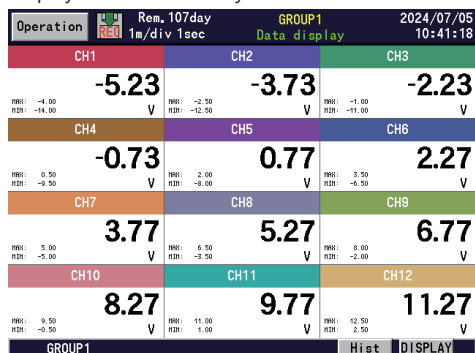
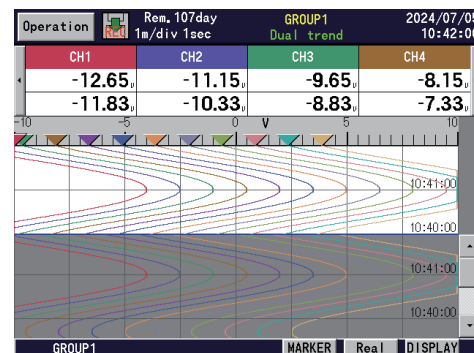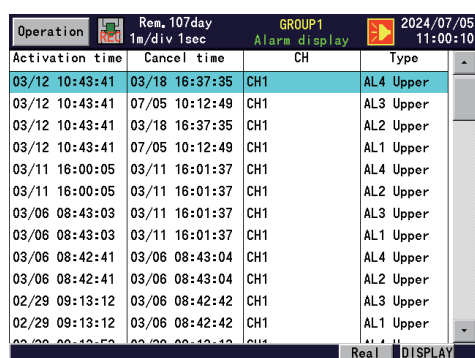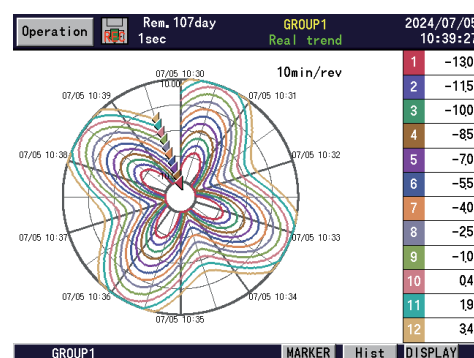### ●Duel trend screen

2 split display for real time trend and historical trend.
Historical trend can be scrolled.

●Circular trend screen
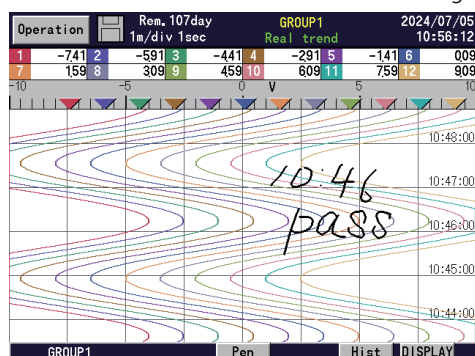
●Lower order communication screen

MV and SV of our controllers connected at lower order can be displayed.

■Input Specifications

Measuring points:12 Points, 24 Points, 36 Points, 48 Points
Input types   :Universal
    DC Voltage...±13.8mV,±27.6mV,±69.0mV
        ±200mV,±500mV,±2V,±5V*,±10V*,±20V*,±50V*
        (* With built in voltage diving resistor)
    DC Current ...Can be used by using voltage dividing resistors (Sold separately)
    T/C ...B,R,S,K,E,J,T,N,PtRh40-PtRh20,W-WRe26,
        C(WRe5-WRe26),Platinel II ,NiMo-Ni,CR-AuFe,U,L
    RTD...Pt100,JPt100,Pt50,Pt-Co
Accuracy ratings:Refer to table of measurement range / accuracy rating
Reference junction
compensation accuracy:K, E ,J,T,N, Platinel II
        ...±0.5°C or less (measurement input 0°C or above)
    R,S,W-WRe26,C(WRe5-WRe26),NiMo-Ni,CR-AuFe,U,L
        ...±1.0°C or less (measurement input 0°C or above)
Measuring cycle:1s / all channels

Burn out   :Input signal disconnection detection for thermocouple and resistance thermometer inputs.
        UP/DOWN/NONE can be selected for each input
Scaling   :Range / Scale optional set up
Digital filter :FIR filter
Allowable signal
source resistance:T/C input (With / Without Burn Out)
        And DC voltage input (±2V or less)...1kΩ or less
    DC voltage input (±5V or less)...100 Ω or less
    RTD...10Ω or less per wire(equal for all 3 wires)
Input resistance:DC voltage input, TC input...About 1MΩ
Maximum input voltage:DC voltage input (±2V or less)
        And TC input (Burn out disabled)...±10VDC
    DC voltage input(±5V～±50V)...±60VDC
Between channels:Between various channels 1000V AC or above
Dielectric strength
between channels:(High strength semiconductor relay used)
        (B terminal of resistance thermometer is shorted internally between channels)
Common mode
rejection ratio:120dB or above
Series mode
rejection ratio:50dB or above

■Recording specifications

Internal memory:Flash memory (32MB)
External memory:SD card (Capacity up to 32GB) 512MB Standard attached
        ...ATP Electronics and TDK Corporation made recommended
    USB memory
        ...HAGIWARA Solutions Co., Ltd. made 8 GB recommended
Recording cycle:1,2,3, 5,10,15,20,30s
    1,2,3,5,10,15,20,30,60 min
Recording data:Measured data...File name (Group name), time day month
        and year of recording start, tag, measured data,
        alarm status / types, marker text
    Setting parameter...All parameters
Storing types:Binary / CSV selectable
Storing method:Manual start / stop
    Schedule (Day and time, date and time specification)
    Trigger signal (alarm event, digital input)
    Data recording of before and after trigger
    *Pre-trigger is selectable. Max 950 data.
Recording group:56points / Up to 6 groups can be registered
        (Total max 128 points can be recorded)

■Computation specifications

Computation points : Maximum 128 points
Computation cycle : 100ms / all points
Computation types : Arithmetic operations...Addition, subtraction, multiplication,
        division, remainder, power comparison
    Comparison operations...Equal, un equal, greater than, less than ,
    Logical operations...AND, OR, XOR, NOT
    General functions...Round up, round down, absolute value,
        square root, exponent of e, natural algorithm,
        common logarithm,
    Totalization operations... analog integration, digital integration
    Channel data operations...Measured data computation,
        calculated data computation,
    Others   ...Dew point, relative humidity, F-value,
        SD card remaining capacity,Moving average,
        wind direction (Display 16 directions)

■Alarm specifications

Set up count :Up to 4 alarms can be programmed per channel
Alarm types :Upper limit, lower limit, differential upper limit,
        differential lower limit (dead band is selectable), abnormal data
Delay function :sett up range of alarm delay 0～3600s
Alarm settings:AND/OR selectable
Alarm output :Refer to option specifications

■PDF Chart Specifications

By using PDF chart function, data can be saved as PDF file in to SD card
as equivalent of data on CHINO's analog recorder or hybrid recorder chart paper.

Output details:File information...Select from below, Information regarding the file
        is printed on the top of the file.
    Chart speed. Instrument name, Serial NO, Software version,
    Group name, Batch name, Lot NO, Batch text,
    Original data file name, channel parameters

    Lines ...   Measured data is displayed in graph based on the display
            scale set in the channel parameters Color of lines
            on the chart is output as color set in channel parameter

    Data ...   Data is printed regularly at the time set in Data interval print
    Scale channel NO. ...Prints channel NO, tag, and scale minimum /
            maximum at that time are printed
    Time line ...   Printing is done by a cycle corresponding to
            the chart speed Start point of cycle is 00:00

Output method:Auto output   ...PDF chart of a whole file is created
            automatically at the file completion
    Output from internal memory file:
            ...Output PDF chart from internal memory file
            by specifying the time range
    Output from external memory file:
            ...Output PDF chart from external memory
            (SD card or USB memory) file by specifying the data range.

Drawing settings:Chart speed
            ...Chart length at 1 hour (or 1 minute)
    Chart width   ...100mm,180mm,250mm selectable
    Connection between dots ... [OFF] As dot printing type recorder ,
            dotting is done on the point of the recording data.
        [ON] Connect intervals between dots
            to create a chart as pen type recorder
    Auto range   ...Setting of auto range switching function
            if the data exceeds the range.
            Usually selected from none, normal, overlap.

PDF file protection:None   ... Can be edited by Acrobat etc
    Normal   ...it does not allow 'Changing the document'
            and page extraction'.
            (Printing and signing) etc is possible
    Complete   ...All the editing functions are not allowed.
Selection of Paper:Chart paper, A4, A3. letter
        (Output on chart paper in case of Auto)

■Display specifications

Display: 10.4 inch TFT color LCD VGA(640×480 Dots)
Display types: Measured data display (Trend display, numerical display,
        bar graph display, circular chart display)
    Historical trend display (Can be displayed along with real time trend)
    information display (alarm, marker list, file list) setting screen
    (alarm, computation, memory, system, maintenance, communication etc)
Trend display :12 color display
    Display groups Maximum 6 groups
    Display points Maximum 56 points per group
    Time axis direction Vertical Horizontal or circular
    Line thickness Can be selected from 1 to 5
    Scale display 4 Scales
    Tag, numerical value to be displayed or not, markers
Data value display :Display groups Maximum 6 groups
    Display points Maximum 56 points per group
    Display details Measured value, Channel / tag , unit , alarm status
Bar graph screen :12 color selectable
    Display groups Maximum 5 groups
    Display points Maximum 44 points / group
    Display direction Vertical or horizontal
    Scale display 1 scale

Information display :Alarm display (alarm activation / released history display)
        Device information (Model, Serial NO, options, others)

LCD back light :Auto / Manual OFF function
        Brightness 4 levels adjustment

* LCD display may contain some pixels that always or
never illuminate and the brightness of some areas of display may appear un even.
These are typical LCD performance characteristics and do not constitute malfunctions.

KR3-H series

■Communication function

●Ethernet

Media : Ethernet (10BASE-T/100BASE-TX)
FTP Server : Data file can be read from network computer
FTP Client : Transfer of data file to network server
SNTP client : Time can be synchronized with the SNTP server on the network
Web server : Conformed to HTTP1.0... Displays the alarm,
  information of maintenance by browser software (Microsoft Edge)
  *Password can be set

E - M a i l : E-mail notification at specified time for alarm activation
  Report data at specified time is selectable from all registered data
  Notification addresses Maximum 8 contacts

■Connectivity
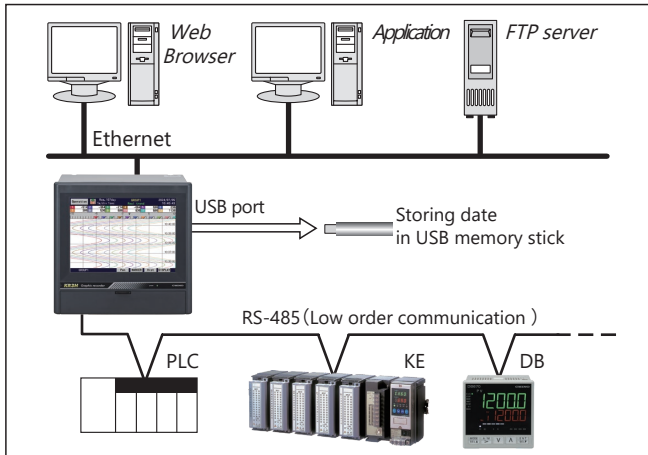
■General specifications

Rated power voltage : 100-240V AC (universal power supply) 50/60Hz
Maximum power consumption : 60VA
Reference operation condition : Ambient temperature 21 TO 25°C , 45～65%rh
  Power voltage 100VAC±1.0%
  Power frequency 50/60Hz±0.5%
  Attitude Left / right 0°, forward/backward 0°
  Warm up time Longer than 30 minutes
  Display luminance 2
Normal operating condition : Ambient temperature 0 to 50°C , 20 to 80%rh
  Power voltage 90～264V AC
  Power frequency 50/60Hz±2%
  Attitude Left / right forward/backward 0° , Backward tilting 0°to 20°
  Display luminance less than 2
Transport condition : At the packed condition on shipment from factory
  Ambient temperature −20 to 60°C ,
  Ambient humidity 5 to 90%rh (No dew condensation)
  Vibration 10～60Hz 4.9m/s(2 0.5G) or less Shock 392m/s(2 40G) or less
Storage conditions : Ambient temperature −20 to 60°C,
  Ambient humidity 5 to 90%rh (No dew condensation)
Power failure protection : FLASH memory and SRAM stores the settings
  Data is stored in FLASH memory
  Lithium battery backup the clock and parameter RAM for more than 5 years.
  (with the condition as operations for 8 hours or more a day).
Insulation resistance : Secondary terminals and protective conductor terminals 20MΩ or more at 500VDC
  Primary and protective conductor terminals 20MΩ or more at 500VDC
  Primary and secondary terminals 20MΩ or more at 500VDC
  However, Primary terminals : power terminals : (L,N), alarm output terminals
  Secondary terminals : measuring input terminals, digital input terminals,
  communication terminals
Dielectric strength : Secondary terminals and protective conductor terminals 1 minute at 500VAC
  Primary and protective conductor terminals 1 minute at 1500VAC
  Primary and secondary terminals 1 minute at 2300VAC
  Primary terminals : power terminals : (L,N), alarm output
  Secondary terminals : measuring input terminals, digital input terminals,
  communication terminals,
Case assembly material : Front... Flame-resistant polycarbonate resin (frame)
  Case... Steel
Case : Front...Black (Equivalent to Mussel N3.0)
  Case...Gray (Equivalent to Mussel N7.0)
Weight : 5.6kg
Mounting : Panel mounting
Terminal screws : protective conductor...M4.0
  Measuring input terminals, alarm output terminals,digital input terminals, ...M3.5
  Communication terminals ...M3.0
Clock accuracy : ±2 minutes / 30 days (excluding errors due to power ON / OFF
  under the reference operating conditions)

■Standards

EMC Directive : EN61326-1 classA (CE, UKCA)
*The indication equivalent to ±1mV may vary under the test environment by EMC directives.
Low voltage directive : EN61010-1 (CE, UKCA)
  EN61010-2-030 compliant (CE, UKCA)
  Over voltage category Ⅱ , Pollution Degree 2
  Transient overvoltage: 2500V
  Environment directives：RoHS (CE, UKCA)
  EN IEC63000 complaint
  (Monitoring and control equipment, including industrial devices)
  Dust / splash proof : IEC60529 IP54 (Front)

■Option specifications

Options		Specifications
Alarm output		Mechanical relay (c contact) output for alarm activation and input error Output points :4 or 2 points Contact capacity : resistive load 3A, inductive load 1.5A (Maximum voltage 240 VAC or 30V DC)
Digital input Non voltage contact input (4 or 2 points)	ON/OFF Signal	ON/OFF input recording
	Pulse input	Maximum 10Hz pulse input Used for flow rate, operation time and frequency
	External drive	Following operations are available (Selectable by parameter) ●Data memory trigger ●Marker display ●Integrated calculation reset
Communication interface	High and low order communication	Communication interface for high and low order RS-485(MODBUS) Can be used by choosing one function from following 4 functions ●Communication interface for high order unit ●Low order instrument communication 　(communication details specification method) 　Communication with MODBUS-RTU complaint instrument 　is possible by specifying lower order instrument communication ●Low order instrument communication (Device selection method) 　Displaying and recording of input data of devices 　connected to the lower level, recording data in PLC registers 　and parameter settings, measured values, set values, 　etc. for up to 31 controllers is possible Recording points: 12 Point specifications ...108 points 　　　　　　　　24 Point specifications ...96 points 　　　　　　　　36 Point specifications ...84 points 　　　　　　　　48 Point specifications ...72 points Connectable models:KE,KR2S00,KR3S00, KR2000,KR3000, 　KR2D00,KR3D00,KR2-H,KR3-H,LE5000 AL4000,AH4000, 　DB600 DB1000,DB2000,KP1000,KP2000, 　DP-G (Data collection only), JU,JW,SE3000 ●Transfer of KR2-H input data to PLC. 　　　　　　　　　Only PLC can be connected. 　Data writing points:44 points 　PLC that can be connected: 　Mitsubishi MELSEC 　　　　...AnA, QnA,QnAS,Q, FX series (1C frame only) 　Omron...SYSMAC Series Note) For connecting with Omron PLC , line convertor (sold separately) is required
	Lower order communication	Interface for lower order communication RS-232C ● Bar code scanner 　Marker writing, group display switch over, 　batch operations can be performed depending 　on bar code scanned.
	Ethernet	KR3-H can be connected to network using Ethernet (10BASE-T/100BASE-TX) This is required when using below functions ●FTP server ●FTP client ●SNTP client ●Web server ●E-Mail ●MODBUS TCP
Custom graphic screen		Creating graphic screen on PC and display to KR screen using CF card is possible by using KR Screen Designer (Option). Values measured by KR can be placed on the screen.
KT-M input		Digital communication (RS-485) with High Accuracy Temperature Converter KT-M
Portable type		Handle and rubber feet for easy carry

■Accessories sold separately

Name	Capacity
Resistor for DC current input 100Ω	For 50mA
Resistor for DC current input 250Ω	For 20mA
SD card	512MB,1GB,2GB,8GB,32GB

■Measuring ranges and accuracy

※FS= measuring range

Input type		Measuring range	Accuracy ratings
DC Voltage		−13.80 ～ 13.80mV −27.60 ～ 27.60mV −69.00 ～ 69.00mV −200.0 ～ 200.0mV −500.0 ～ 500.0mV −2.000 ～ 2.000V	± 0.1%FS±1digit
（With built in voltage divider)		−5.000 ～ 5.000V −10.00 ～ 10.00V −20.00 ～ 20.00V −50.00 ～ 50.00V	
T/C	K	−200.0 ～ 300.0℃ −200.0 ～ 600.0℃ −200 ～1370℃	± 0.1%FS±1digit *−200～0℃: ± 0.2%FS±1digit
	E	−200.0 ～ 200.0℃ −200.0 ～ 350.0℃ −200 ～ 900℃	
	J	−200.0 ～ 250.0℃ −200.0 ～ 500.0℃ −200 ～1200℃	
	T	−200.0 ～ 250.0℃ −200.0 ～ 400.0℃	
	R	0 ～1200℃ 0 ～1760℃	± 0.1%FS±1digit *0～ 400℃: ± 0.2%FS±1digit
	S	0 ～1300℃ 0 ～1760℃	
	B	0 ～1820℃	± 0.1%FS±1digit *0～400℃:out of accuracy ratings *400～800℃: ± 0.15%FS±1digit
	N	−200.0 ～ 400.0℃ −200.0 ～ 750.0℃ −200 ～1300℃	± 0.15%FS±1digit * −200～0℃: ± 0.3%FS±1digit
	W-WRe26	0 ～2315℃	± 0.15%FS±1digit *0～ 100℃: ± 4%FS±1digit * 100～400℃: ± 0.5%FS±1digit
	C(WRe5-WRe26)	0 ～2315℃	± 0.2%FS±1digit
	PtRh40-PtRh20	0 ～1888℃	± 0.2%FS±1digit *0～ 300℃: ± 1.5%FS±1digit * 300～800℃: ± 0.8%FS±1digit
	NiMo-Ni	−50.0 ～ 290.0℃ −50.0 ～ 600.0℃ −50 ～ 1310℃	± 0.2%FS±1digit
	CR-AuFe	0.0 ～ 280.0K	± 0.2%FS±1digit *0～ 20K: ± 0.5%FS±1digit *20～ 50K: ± 0.3%FS±1digit
	PlatinelⅡ	0.0 ～ 350.0℃ 0.0 ～ 650.0℃ 0 ～1395℃	± 0.15%FS±1digit
	U	−200.0 ～ 250.0℃ −200.0 ～ 500.0℃ −200.0 ～ 600.0℃	± 0.15%FS±1digit * −200～0℃: ± 0.3%FS±1digit
	L	−200.0 ～ 250.0℃ −200.0 ～ 500.0℃ −200 ～ 900℃	± 0.1%FS±1digit * −200～0℃: ± 0.2%FS±1digit
RTD	Pt100	−140.0 ～ 150.0℃ −200.0 ～ 300.0℃ −200.0 ～ 850.0℃	± 0.1%FS±1digit * −140.0～150.0℃, 700～850℃: ± 0.15%FS±1digit
	JPt100	−140.0 ～ 150.0℃ −200.0 ～ 300.0℃ −200.0 ～ 649.0℃	± 0.1%FS±1digit * −140.0～150.0℃: ± 0.15%FS±1digit
	Pt50	−200.0 ～ 649.0℃	± 0.1%FS±1digit
	Pt-Co	4.0 ～ 374.0K	± 0.15%FS±1digit *4～ 50K: ± 0.3%FS±1digit

Note : The accuracy ratings are converted in to the measuring range under reference operating condition. Thermocouple input does not contain reference junction compensation accuracy.
K,E, J, T, R, S, B, N:IEC584, JIS C1602-1995
W-WRe26,PtRh40-PtRh20, Platinel II, NiMo-Ni,
Cr-AuFe:ASTM Vol14.03
C(WRe5-WRe26):JIS C1602-2015
U(Cu-CuNi), L (Fe-CuNi):DIN43710
Pt100:IEC751 (1995), JIS C1604-2013,
JPt100:JIS C1606-1989, JIS C1604-1981
Pt50:JIS C1604-1981

■Application software

### ■Integrated application software "TRAMS"

TRAMS can be connected to our recorders, controllers, setting units and PC and operations like parameter settings, data recording and data analysis can be performed.

Analysis function
This software is used to play back and display data files collected by KR3-H series recorder and to perform waveform processing and editing.
In addition to playback and display of vertical and horizontal trends, the software has analysis functions like partial graph magnification and message insertion.

●Display

Trend screen（Vertical flow）
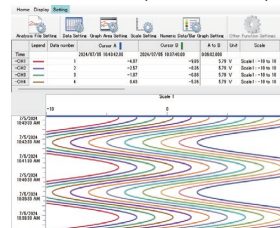
Trend screen（Horizontal flow）
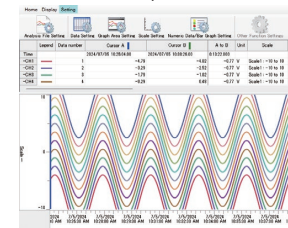
●Main functions

■Trend display
Trend display（vertical flow), trend display（horizontal flow) is selectable

■Data list display
Recorded data is list displayed

■Bar graph
stacked graph

■Numerical data
All / Maximum value / minimum value / Average value / Standard deviation / Median value / can be displayed in list

■Alarm
Alarm activation status of various levels of numerical data

■Various settings
Trend screen, scale axis, time axis, analysis file title input

■Data conversion function
Export to EXCEL, CSV and TEXT file is possible

■Parameter setting function
Online settings of various parameters, saving and changes in parameter file is possible

■Recording function
Online collection of data and play back of collected data is possible
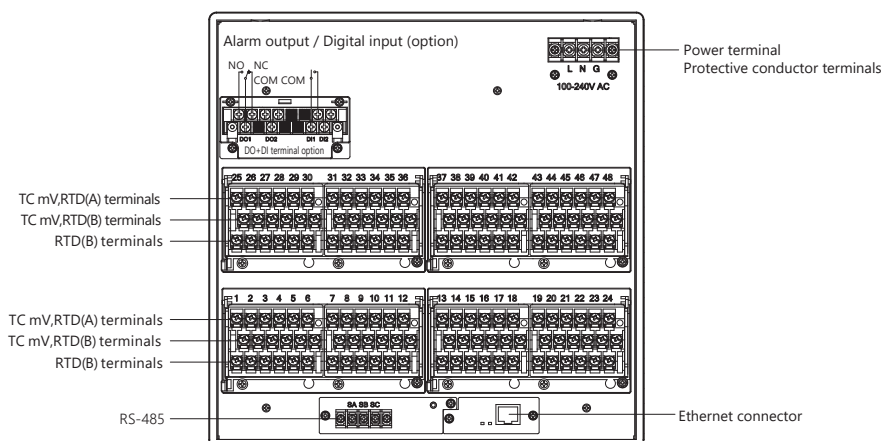
●Operating environment

CPU	1GHz or more 32bit or 64bit
OS	Microsoft Windows 10 (32bit/64bit) Microsoft Windows 11 (64bit) *.NET Framework4.7.2 or above should be able to be installed
memory	1GB or above(32bit), 2GB or more (64bit)
Hard disk	2GB or more free disk space
Language	Japanese, English, Korean

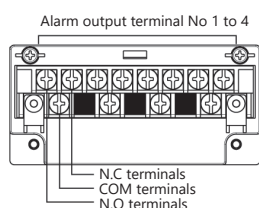※Display language mentioned is for PC and device is not included

■Accessories

Name		Quantity	Details
①User manual		1	INE-952□[General] INE-883□[Communication] *CD-ROM PDF chart output software, Recipe creation software sample
		1	KR3S-02-□(Wiring and installation) *A4 Booklet
		1	RZMC-02-□(SD Card manual)
②Mounting brackets		2NOS	For panel mounting
③Terminal screws		5NOS	M3.5 for measuring input terminals (Spare)
④SD Card		1	RZ-SMC-512(512MB)

■Terminal arrangement

Alarm output / Digital input (option)

NO NC
COM COM

DO1 DO2 DI1 DI2
DO+DI terminal option

Power terminal
Protective conductor terminals
100-240V AC

L N G

TC mV,RTD(A) terminals
TC mV,RTD(B) terminals
RTD(B) terminals

25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48

TC mV,RTD(A) terminals
TC mV,RTD(B) terminals
RTD(B) terminals

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

RS-485

SA SB SC

Ethernet connector

●Alarm relay output (4 points 'c' contact) (option)

Alarm output terminal No 1 to 4

N.C terminals
COM terminals
N.O terminals

●Digital input (No voltage contact input 4 points)

No voltage contact input (option)

Digital input terminal NO. 1 to 4
COM terminals
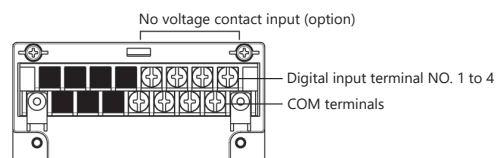
●Alarm relay output (2 points 'c' contact)
+Digital input (No voltage contact input 2 points) (Option)

Alarm output terminal No 1,2   No voltage contact input

Digital input terminal NO.1,2
COM terminal

N.C terminals
COM terminals
N.O terminals
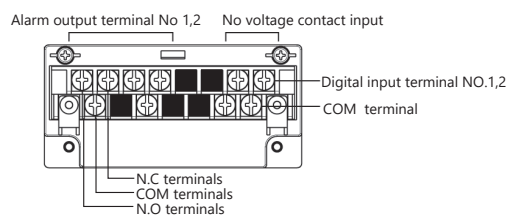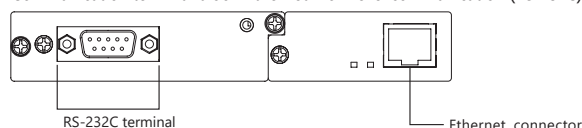
●Communication interface

Communication terminal block Ethernet+ High , low level communication (RS-485)

RS-485 terminal

Ethernet connector
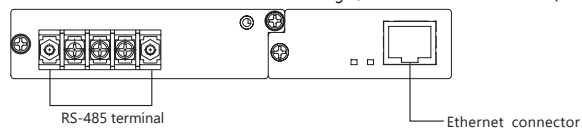
Communication terminal block Ethernet+ low level communication (RS-232C)

RS-232C terminal

Ethernet connector

■Dimension

●Panel mounting type

288

277.6

288

248
296

180
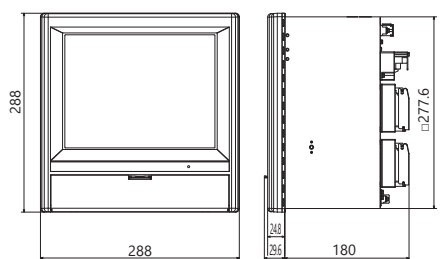
(Dimension will be same even with options)

●Portable type (with handle and feet)

6.3

288

18.8

277.6

313.1

288

248
296

180

■Panel cut out

360

360

281 +1 0

281 +1 0
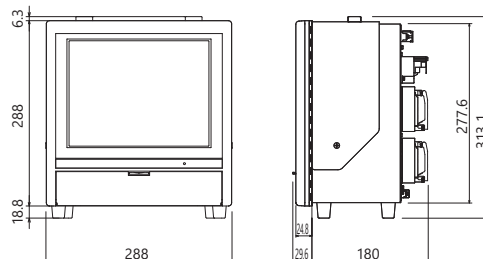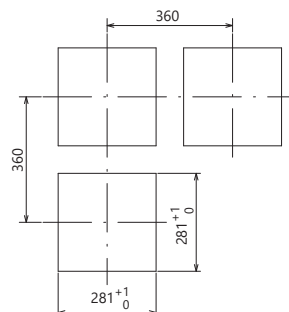
Unit：mm

Specifications subject to change without notice. 2024.7