

μ R10000/ μ R20000

Industrial Recorders

YOKOGAWA INDUSTRIAL RECORDER

μ R10000TM μ R20000TM

The Information You Need:
Easier to
Data redundancy (SD memory card support) offers

04 2000.0 °C

RECORD

CHARACTER



ESC/?

SHIFT



Aug. 10. 2005
20:00*

1 175.1t/h

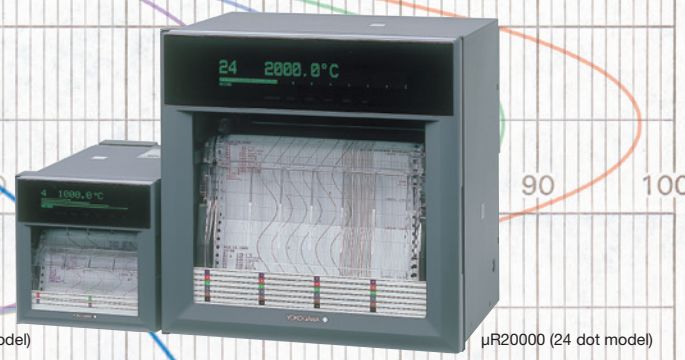
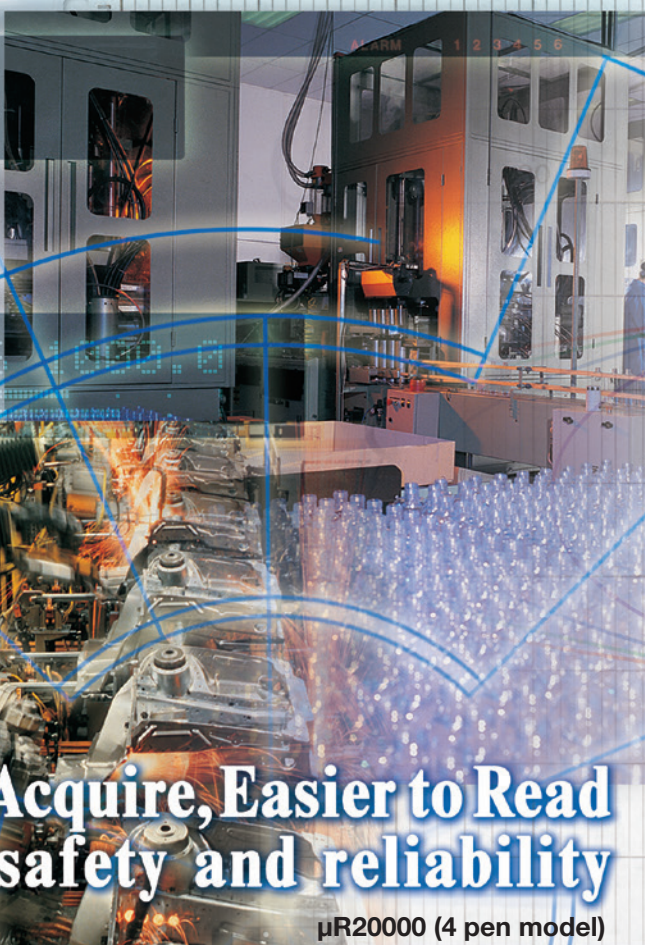
3 330.0%

4 475.0%

20:05 μ R20000 P

RECORDERS

Get reliable, high quality output with the "Power of Paper!"
Recorders with the reliability of Yokogawa



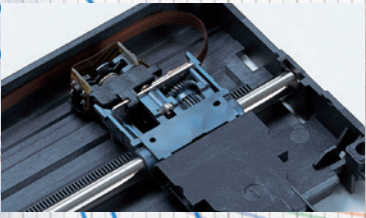
µR10000 (4 pen model)

µR20000 (24 dot model)

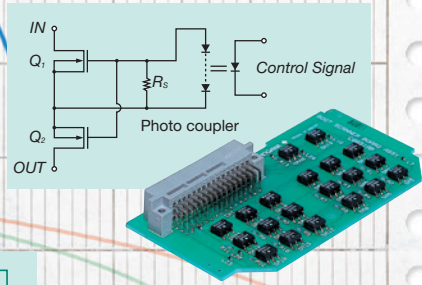
Leading-Edge Technology Offers High Reliability and High Quality

- Leveraging contact-less technology
- Actuators reduced in size through high precision manufacturing technology
- High degree of integration using custom ICs
- Dust and splashproof front door (conforms to IP54)

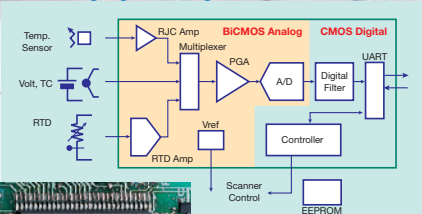
Servo Unit



High-Voltage Solid-State Scanner



ASIC



Splash-proof Front Door



Acquire, Easier to Read
safety and reliability

µR20000 (4 pen model)

Superior Ease-of-Operation

- Large, VFD full dot matrix display (µR10000: 101 × 16, µR20000: 181 × 16)
- Easily navigable interactive settings
- New chart cassette (enables historical trend review during recording)
- Internal illumination comes standard (high intensity white LED)



Multiple Functions Meet a Variety of Needs

- Broad lineup (1-, 2-, 3-, or 4-pen models, and 6-, 12-, 18-, or 24-dot models)
- Dot model (6-dot model) achieves one second measurement intervals
- Universal input
- Supports a wide range of input sensors
Supports 35 types of input including optional TC, RTD.
- Mathematical functions
No. of Mathematical channels: 8 channels (Pen models), 12 channels (µR10000 dot model), 24 channels (µR20000 dot models)
Computation types: Arithmetic, logic, relation and static computations
Recording: Pen model: Assignable to any pen, Dot model: Fully recordable
- Supports Ethernet or RS-422A/485 interfaces
- SD memory card support (option)



Delivers Confidence

The critical factor in continuous recording using industrial recorders is reliability. Leveraging the latest technology, Yokogawa brings you that reliability in a compact, lightweight unit that embodies all the breakthroughs and know-how that Yokogawa has cultivated over the years.

INTELLIGE

Bringing You the Highest Reliability

Servo Unit

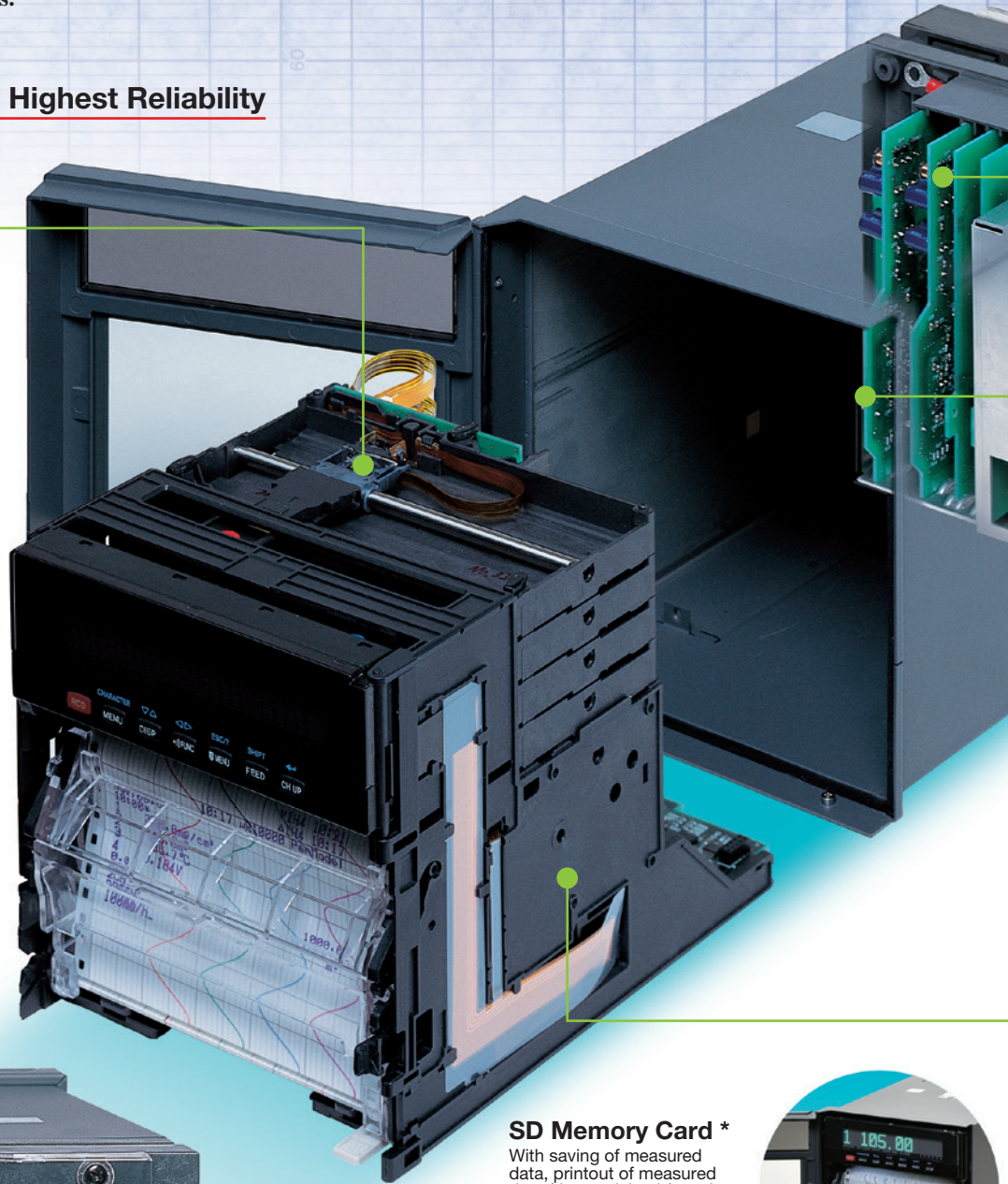
The pen servo unit takes advantage of an ultra-small, rack-and-pinion stepping motor. The servo unit is smaller and consumes less power than previous models.

Splash-proof Front Door

(conforms to DIN 40050-IP54)
The front door meets DIN 40050-IP54 standards in panel-mount installations.

Safety/EMC Standards

Yokogawa's highly reliable industrial recorders support safety and EMC (electromagnetic compatibility) standards. And of course, the μ R conforms to the European CE marking standard.



6 dot model



Optional Terminals*

* Individual terminals are removable, making wiring and maintenance easy.

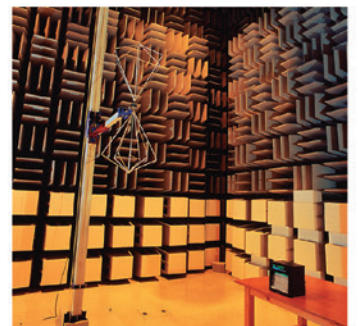
Input Terminals*

Ethernet (10Base-T)

Data management possible via network.

SD Memory Card *

With saving of measured data, printout of measured data (dot model only), and saving and loading of settings, μ R recorders are ideal for ensuring redundancy.
* Option



(EMI testing LAB in Yokogawa)



High-Voltage Solid State Scanners

High withstand voltage semiconductor relays have been adopted for scanners that switch the input signal. They enable high speed scanning of six dots per second, increase the life of the scanner, and reduce noise.

Use of ASICs

The recorders feature a high degree of functional integration through Yokogawa's renowned ASICs (application specific integrated circuits, or custom ICs). They allow for reduced power consumption, increased lifespan of components, and suppressing of heat emissions.

Matching the Displayed Operation Screen to the Application

The user can switch between up to fifteen previously configured operation screens using the DISP key.



Multi-Display (Displays a Variety of Screens) for Site Monitoring

Displays that support our customers' site monitoring needs with high visibility. Large VFD: 101 x 16 full dot matrix using a variety of screens.

- "I want to use my recorder as a monitor."

6 channel digital display (6 dot model)



2 channel digital display



- "I want to monitor the recorder position on an analog indicator."

Flag display



- "I want to monitor alarms collectively."

Channel alarm status display



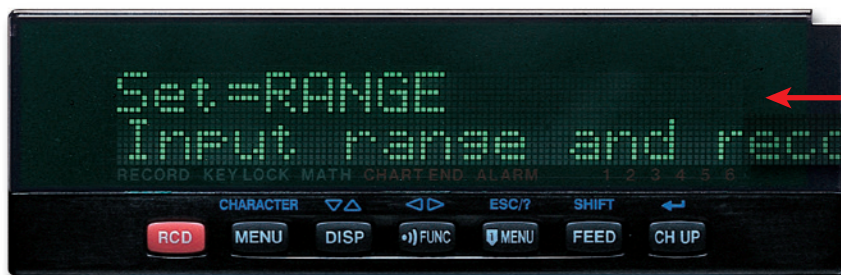
Lightweight

Innovative molding technology reduces the number of parts and lowers the weight of the unit. Higher efficiency and low heat emissions have also been achieved through a high degree of integration and a new type of servo unit.

Navigational Display Makes Setup a Snap

The instrument features a simple configuration, with Operation mode for normal use, and Setting mode for use during setup. In Operation mode, measured values, time, and alarms are updated, and lists are printed. In

Setting mode, you can enter measuring ranges, alarm values, and other parameters. Also, Setting mode offers a navigational display that eases entry of settings.



Navigational display to support setting selections. (Example: Range Setting)

Easier to Acquire, Easier to Read

Uses a large, easy-to-view VFD 101 x 16 full dot matrix display. All settings are interactive, and supported by the navigational display, offering easier to read selections and superior ease of operation.

Delivers Confidence

The critical factor in continuous recording using industrial recorders is reliability. Leveraging the latest technology, Yokogawa brings you that reliability in a compact, lightweight unit that embodies all the breakthroughs and know-how that Yokogawa has cultivated over the years.

Bringing You the Highest Reliability

Servo Unit

The pen servo unit takes advantage of an ultra-small, rack-and-pinion stepping motor. The servo unit is smaller and consumes less power than previous models.

Splash-proof Front Door

(conforms to DIN 40050-IP54)

The front door meets DIN 40050-IP54 standards in panel-mount installations.

High-Voltage Solid State Scanners

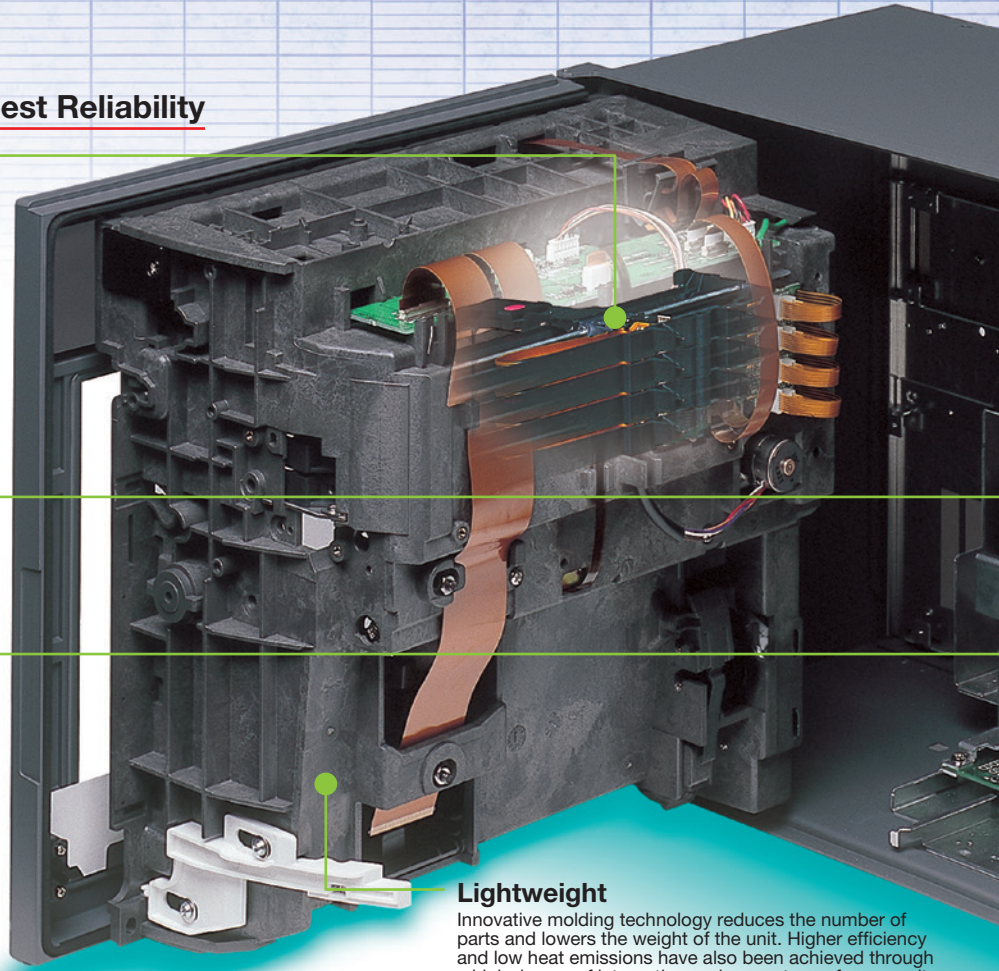
High withstand voltage semiconductor relays have been adopted for scanners that switch the input signal. They enable high speed scanning of six dots per second or twelve to twenty-four dots in 2.5 seconds, increase the life of the scanner, and reduce noise.

Use of ASICs

The recorders feature a high degree of functional integration through Yokogawa's renowned ASICs (application specific integrated circuits, or custom ICs). They allow for reduced power consumption, increased lifespan of components, and suppressing of heat emissions.

Safety/EMC Standards

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Lightweight

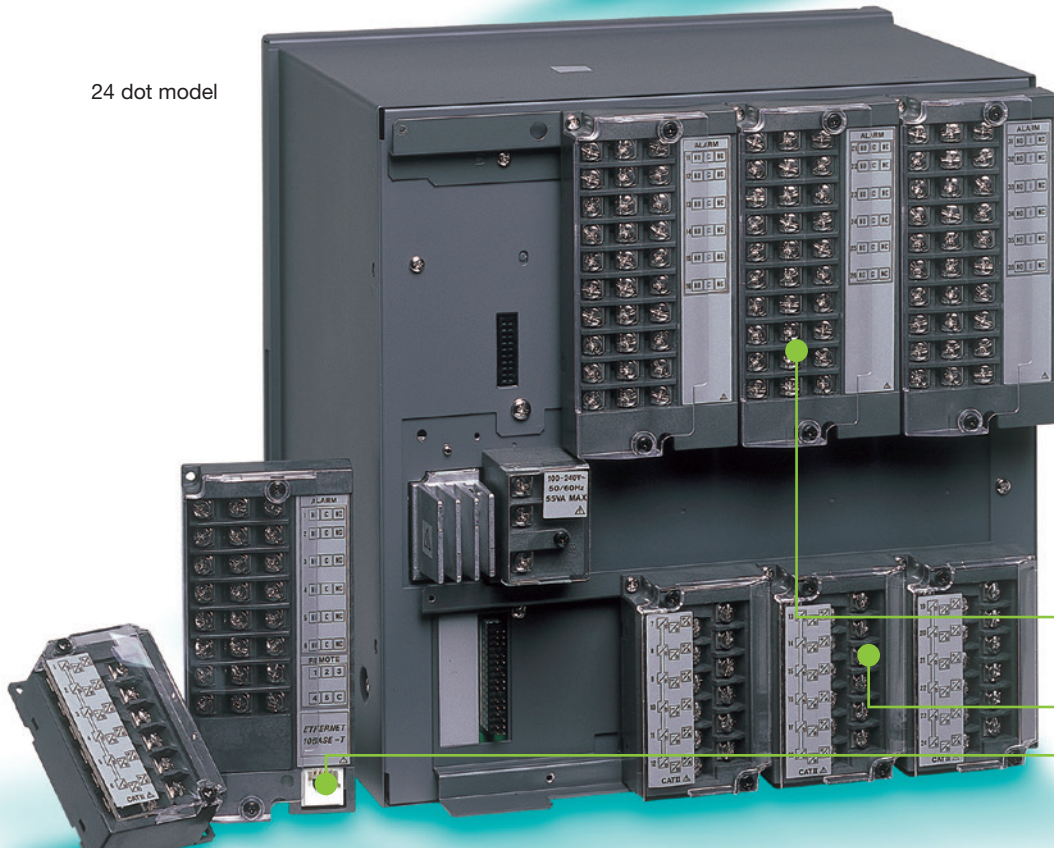
Innovative molding technology reduces the number of parts and lowers the weight of the unit. Higher efficiency and low heat emissions have also been achieved through a high degree of integration and a new type of servo unit.

SD Memory Card *

With saving of measured data, printout of measured data (dot model only), and saving and loading of settings, μ R recorders are ideal for ensuring redundancy.

* Option

24 dot model



Matching the Displayed Operation Screen to the Application

The user can switch between up to fifteen previously configured operation screens using the DISP key.



Optional Terminals*

* Individual terminals are removable, making wiring and maintenance easy.

Input Terminals*

Ethernet (10Base-T)

Data management possible via network.

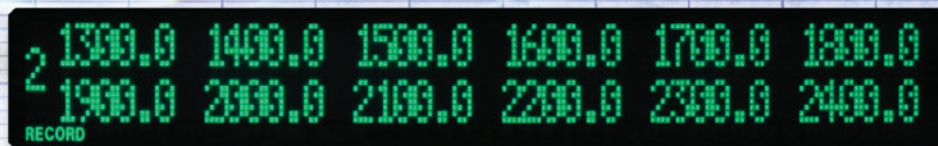


Multi-Display (Displays a Variety of Screens) for Site Monitoring

Displays that support our customers' site monitoring needs with high visibility. Large VFD: 181 x 16 full dot matrix using a variety of screens.

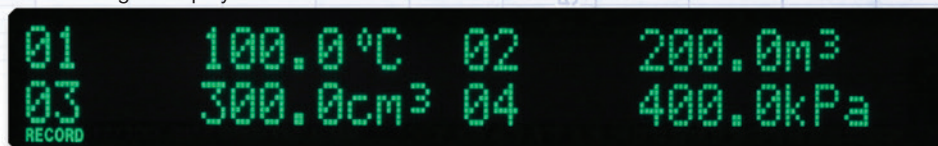
- "I want to use my recorder as a monitor."

12 channel digital display (12, 18, and 24 dot models)



Two groups are alternately displayed: 18 dot model 1Gr (1 to 12ch), 2Gr (13 to 18ch)
24 dot model 1Gr (1 to 12ch), 2Gr (13 to 24ch)

4 channel digital display



- "I want to monitor the recorder position on an analog indicator."

Flag display



- "I want to monitor alarms collectively."

Channel alarm status display



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measuring ranges, alarm values, and other parameters. Also, Setting mode offers a navigational display that eases entry of settings.

Navigational display to support setting selections (Example: Range Setting)



Easier to Acquire, Easier to Use

Uses a large, easy-to-view VFD 181 x 16 full dot matrix display. All settings are interactive, and supported by the navigational display, offering easier to read selections and superior ease of operation.

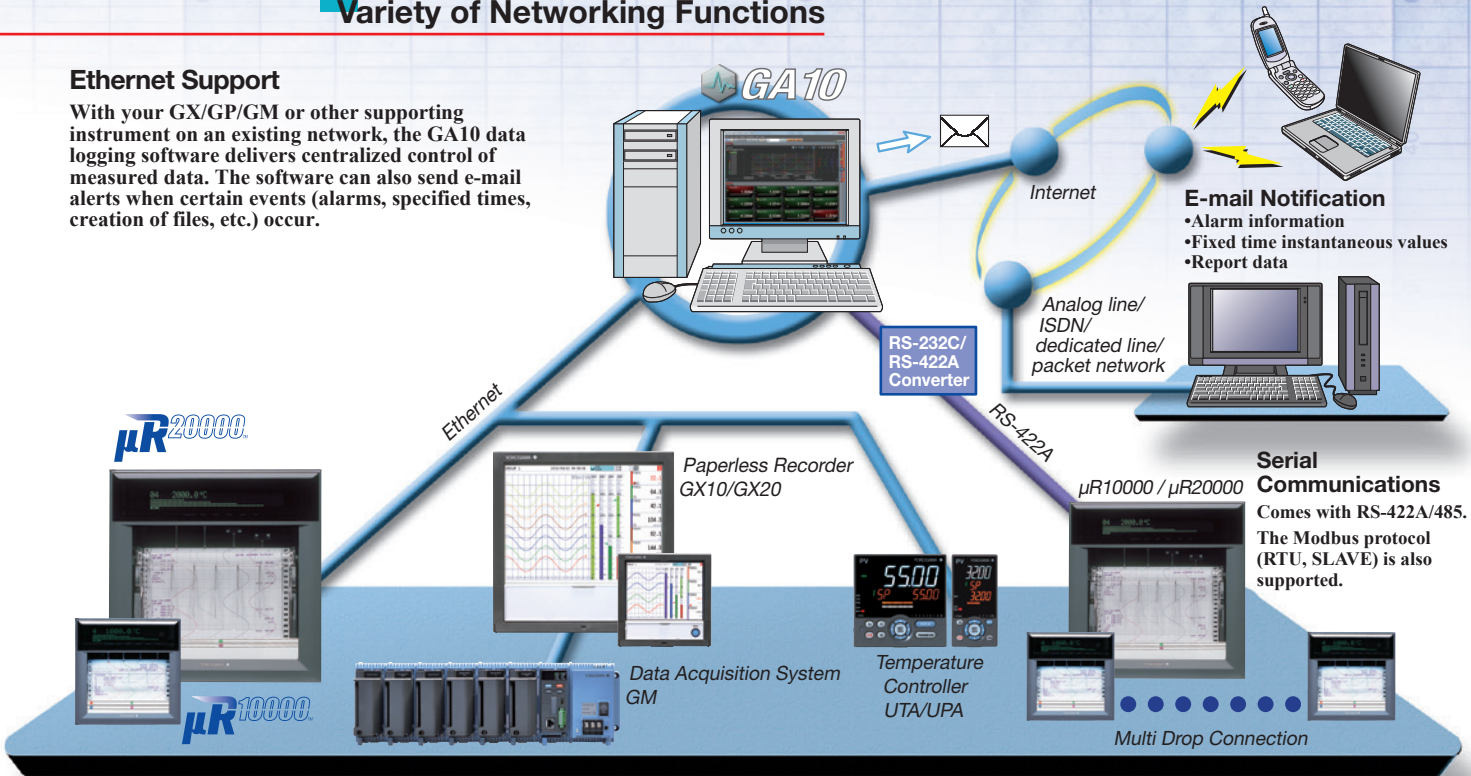
Broad Functionality for Wide Range of Applications

The instrument comes with a full set of functions to cover the many needs of our customers and support their applications.

Variety of Networking Functions

Ethernet Support

With your GX/GP/GM or other supporting instrument on an existing network, the GA10 data logging software delivers centralized control of measured data. The software can also send e-mail alerts when certain events (alarms, specified times, creation of files, etc.) occur.



E-mail Notification

- Alarm information
- Fixed time instantaneous values
- Report data

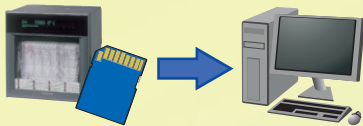
Analog line/
ISDN/
dedicated line/
packet network

Serial Communications

Comes with RS-422A/485. The Modbus protocol (RTU, SLAVE) is also supported.

Application Software That Expands the Possibilities of the μR

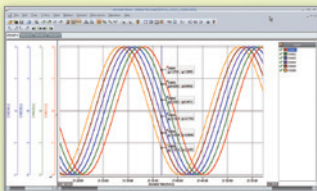
Universal Viewer (free download)



Data files saved on the SD memory card can be loaded and displayed. For specified data, you can also perform statistical computation over an area and export to ASCII, Excel, or other formats.

<http://www.yokogawa.com/ns/>

Displaying waveforms with the Viewer

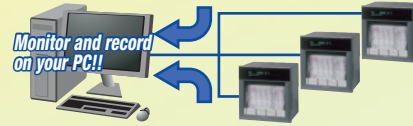


Conversion to ASCII data

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1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000
2.0000 2.0000 2.0000 2.0000 2.0000 2.0000 2.0000 2.0000 2.0000 2.0000
3.0000 3.0000 3.0000 3.0000 3.0000 3.0000 3.0000 3.0000 3.0000 3.0000
4.0000 4.0000 4.0000 4.0000 4.0000 4.0000 4.0000 4.0000 4.0000 4.0000
5.0000 5.0000 5.0000 5.0000 5.0000 5.0000 5.0000 5.0000 5.0000 5.0000
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8.0000 8.0000 8.0000 8.0000 8.0000 8.0000 8.0000 8.0000 8.0000 8.0000
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10.0000 10.0000 10.0000 10.0000 10.0000 10.0000 10.0000 10.0000 10.0000 10.0000
    
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Data Logging Software GA10 (sold separately)



With Ethernet or RS-422/485 (optional), the software can gather measured data from a variety of instruments including the μR series onto the PC. This gives you power over your data including the ability to monitor remotely from the office, record electronically on the PC, and centrally manage data from multiple μR units.

Easy-to-read monitor screen



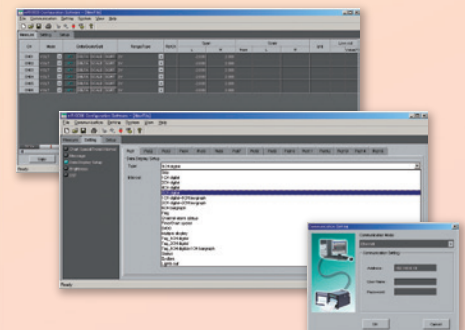
Variety of functions

- Alarm sound
- E-mail transmission
- Add client monitoring PCs
- ...and more

* For details, see the GA10 catalog, bulletin 04L65B01-01EN

RXA10 Configuration Software (sold separately)

Entry and management of settings for measurement and calculation channels is easier than ever. Also, settings can be entered via communication interface.

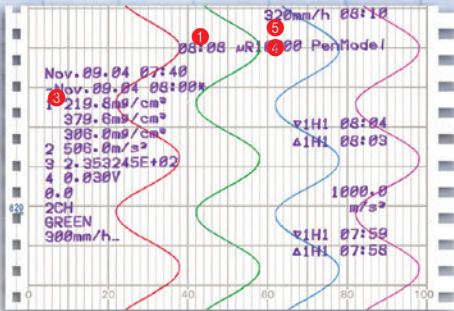


INDUSTRIAL RECORDERS

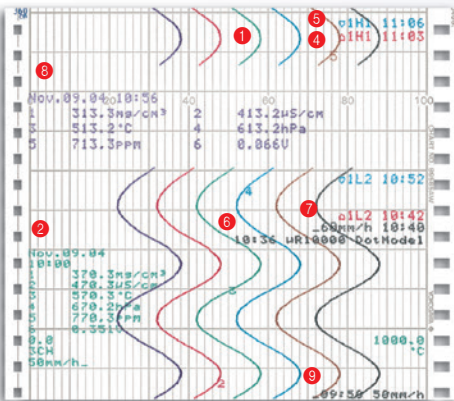
μR SERIES

A Wealth of Recording and Printing Functions

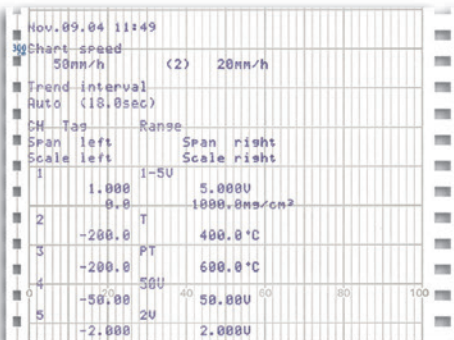
μR10000



4 pen model

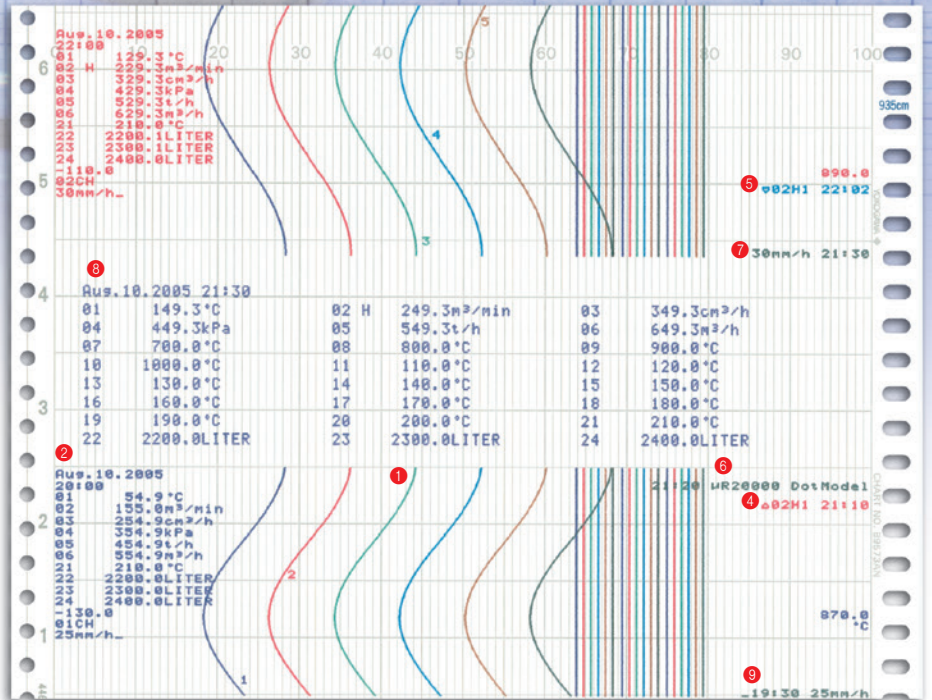


6 dot model

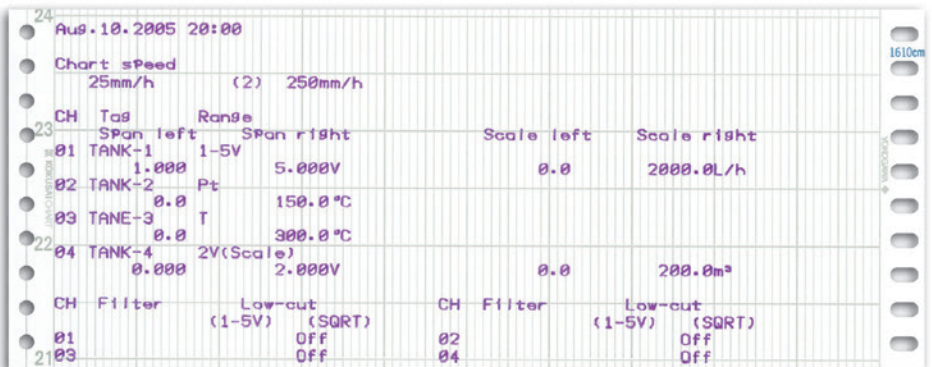


List printout

μR 20000



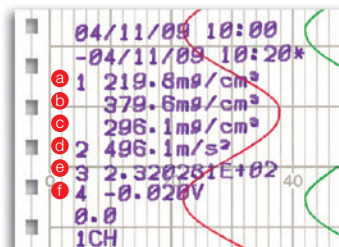
24 dot model



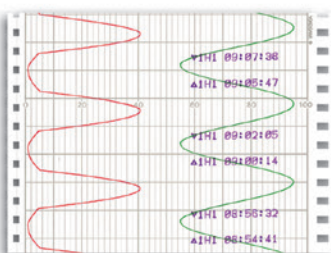
List printout

- 1 Analog recording
- 2 Periodic printouts*
- 3 Report printout *
- 4 Alarm printouts (occurring)
- 5 Alarm printouts (cleared)
- 6 Message printouts
- 7 Chart speed change printout
- 8 Manual printout
- 9 Chart start time printout

*: In Set mode, you can select periodic printout, report printout, or "None."
Select from the following report printout contents: AVE (average) by channel only, MIN (minimum) only, MAX (maximum) only, MIN/MAX/AVE, SUM, or INST (instantaneous value).

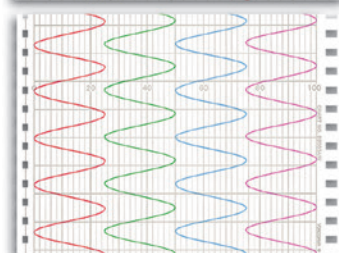


- a Detail of report printout sample
- b MIN
- c MAX
- d AVE
- e SUM
- f INST



Partial expanded recording

Any important portion within the full scale can be expanded for recording.



Zone recording

Recording areas (zones) for each channel can be recorded separately.

A Surprising Variety of Applications and Uses to Meet Every Customer's Needs.

Data Display and Recording for Water Purification Equipment (Acquisition of Data on Water Quality/Amount of Flow)

Environmental data (water quality, amount of flow) is measured on-site and monitored from an office.

- Display and record temperature, flow, turbidity, pH, dissolved oxygen, and other factors, and monitor on-site.
- Automatic calculation of flow with the computation function (/M1 option).
- Connect with Data Logging Software GA10 for remote monitoring in real time

Temperature Monitoring and Recording in a Tunnel Kiln (Acquisition of Temperature Data for Ceramic Processing)

Select screens and display intervals according to on-site processes (zones) to create the optimum temperature monitoring and recording setup.

- Select from a variety of inputs (universal input)
- Monitor and record alarms on site upon occurrence of temperature data and abnormalities.
- Optimized monitoring through simultaneous display of multiple channels and AUTO screen switching
- Connect with Data Logging Software GA10 to control the operational conditions (temperature and alarms) in a furnace from your office.

Managing Sterilization of Pharmaceuticals and Foodstuffs (Acquisition of Sterilization/Pasteurization Data)

MATH function (/M1 option) enables recording (and F value calculation) of sterilization and pasteurization processes.

- Automatically computes F0 value according to temperature
- Computed results are recorded together with temperature and other parameters (pharmaceutical/foodstuff temperature, pressure, etc.)
- Measurement ON/OFF through external contact input (/R1 option)

- Select from a variety of inputs (universal input)
- Automatically computes relative humidity from dry bulb temperature and wet bulb temperature (/M1 option)
- Computed results are recorded together with temperature and humidity (pressure and current)

Measures environmental testing data, and displays and records a variety of data in an easy-to-understand format

Display and Recording of Data from Environmental Testing Equipment (Acquisition of Test data from a Thermostatic Chamber)

- Select from a variety of inputs such as Cu input sensors (/N1 option)
- Monitor and record alarms upon occurrence of temperature, vibration, and abnormalities.
- Connect with Data Logging Software GA10 for data acquisition and analysis when abnormalities occur

Measures temperature and vibration of the turbine for rapid identification of abnormalities

Equipment Maintenance in a Power Plant (Acquisition of Data on Turbine Temperature and Vibration)

- Select from a variety of inputs (universal input)
- Displays temperature and wire diameter simultaneously for monitoring of correlations
- Monitor and record diameter, temperature, and alarms upon occurrence of abnormalities on site.

Displays outer diameter and temperature in a electrical wire coating process for monitoring insulation quality

Management of Electrical Wire Coating Process (Acquisition of Data on Wire Temperature and Outer Diameter)

- Superior ease-of-operation
- Easy-to-see display
- Accurate measurement
- Reliable recording

Supports our customers' site monitoring needs.
Offers optimal solutions and a user-friendly operating environment.

Specifications

See the general specification (GS04P01B01-01E, GS04P02B01-01E) for the detailed specifications.

Input

Measurement Inputs

μR10000: 1, 2, 3, 4 (pen) and 6 (dot) points
μR20000: 1, 2, 3, 4 (pen) and 6, 12, 18, 24 (dot) points

Inputs

Universal input
DCV: 20, 60, 200 mV, 2, 6, 20, 50 V, 1-5 V
TC: R, S, B, K, E, J, T, N, W, L, U, WRe
RTD: Pt100, JPt100
DI: Digital Input (contact or DC Voltage, TTL level).
DCA: Direct Current Input (using external shunt resistor (10 Ω, 100 Ω, 250 Ω))

Measurement Interval

Pen model... 125 ms/channel
Dot model... μR10000: 1 s/6 dot or 2.5 s/6 dot
μR20000: 1 s/6 dot, 2.5 s/12 to 24 dot or 2.5 s/6 dot, 5 s/12 dot, 10 s/18 to 24 dot

Burnout

Available on TC and 1-5 VDC range, ON/OFF selectable (per channel)
1-5V Burnout: less than 0.2V

Filter

Pen model: Signal damping
ON/OFF selectable (per channel), Time constant (2, 5, 10sec)
Dot model: Moving average
ON/OFF selectable (per channel), Moving average cycle (2 to 16)

Standard Computation

Differential computation, Linear scaling, Square root, Bias addition

Recording and Printing

Recording Method

Pen model: Disposable felt pens, Plotter pen, Dot model: 6 color wire dot

Pen Offset Compensation: ON / OFF selectable (Pen model only)

Effective Recording Width

μR10000: 100 mm, μR20000: 180 mm

Chart

μR10000: Plain-paper Z-fold chart (16 m)
μR20000: Plain-paper Z-fold chart (20 m)

Recording Period

Pen model: Continuous for each channel
Dot model: μR10000: Max. 6 ch/10sec
μR20000: Max. 6 ch/10 s, 7 to 12 ch/15 s, 13 to 18 ch/20 s, 19 to 24/30 s

Chart Speed

Pen model: 5 to 12000 mm/h (82 increments)
Dot model: 1 to 1500 mm/h (1 mm step)

Chart Speed Change

speed 1, speed 2 change by remote control signals (option).

Recording Colors

Pen model: pen1=red, pen2=green, pen3=blue, pen4=violet, plotter pen=purple
Dot model: μR10000
ch1=purple, ch2=red, ch3=green, ch4=blue, ch5=brown,
ch6=black (color can be assigned to any channel)
μR20000
ch1, 7, 13, 19=purple ch2, 8, 14, 20=red ch3, 9, 15, 21=green
ch4, 10, 16, 22=blue ch5, 11, 17, 23=brown ch6, 12, 18, 24=black (color can be assigned to any channel)

Recording Format

Analog recording: Zone recording, Partial expanded recording
Digital printout: Channel number or TAG (Dot model only), Alarm, Periodic printout or Report printout, Message printout, Record start time, Chart speed printout, List printout, Manual printout, SET UP List printout

Display

Display Method

μR10000: VFD (101×16 dot matrix), μR20000: VFD (181×16 dot matrix)

Display Types

Multiple displays
Digital, bar, flag, DI/DO display etc. can be displayed.
15 display types can be selected from approx. 80 display types.

Status Display

Recording in progress (RECORD), Shared alarm (ALARM), Channel No. display of occurring alarm (pen model: 1 2 3 4 or Dot model: μR10000; 1 to 6, μR20000; 1 to 24), Chart end display (CHART END) For the model with option (FAIL/chart end detection and output), Math (MATH), Key lock display (KEY LOCK)

Setting

Settings display by interactive mode. In setting, navigator method is used.
Display updated interval can be selected from AUTO/MAN.

Bar Graph Display

Measurement value: left/right (%) reference or center zero reference display (each channel selectable).
Alarm: Alarm setting level display and flashing display of occurring alarm.

Display Brightness Setting

Display brightness level: 1 to 8

Alarm

Number of Levels: Up to 4 level for each channel.

Alarm Type

High and low limits, differential high and low limits, high and low rate-of-change limits and delay high and low Interval time of rate-of-change alarms: The measurement interval times 1 to 15

Display

Set value is indicated as a point on the bar graph (only for bar graph display)
In case of an alarm: - For digital display: Alarm type indicator
- Shared alarm display
- Alarm occurring channel No. is displayed
- For bar graph display: Flashing point indicator

Power supply

- Rated Power Voltage: 100-240 VAC (automatically selected)
- Power Voltage Range: 90-132 VAC, 180-264 VAC
- Rated Power Frequency: 50 Hz/60 Hz (automatically selected)
- Power Consumption

(Approx.)

μR10000	100 VAC power source	240 VAC power source	Maximum
1 to 4 pen model	12 VA*	17 VA*	40 VA
6 dot model	13 VA*	18 VA*	40 VA

*In balance

(Approx.)

μR20000	100 VAC power source	240 VAC power source	Maximum
1 to 4 pen model	17 VA*	25 VA*	55 VA
6 to 24 dot model	17 VA*	23 VA*	55 VA

*In balance

General Specification

Ambient Temperature and Humidity

0 to 50°C, 20 -80%RH (at 5 to 40°C)

Memory Backup

Lithium battery to save settings parameters
Approx. 10 years (at room temperature, for standard model)

Settings Protection Function

Password method

Internal Light

White LED

Operation Position

0° Frontwards: Within 30° from horizontal

Optional Specification

Alarm Output Relay (/A1, /A2, /A3, /A4*, /A5*)

Number of output: 2, 4, 6, 12*, 14*
Relay contact rating: 250 VDC/0.1 A (resistance load), 250 VAC (50/60 Hz) /3 A
*only for μR20000

RS-422A/485 Communication Interface (/C3)

Measurement value output and setting parameter input/output
Conforms to EIA-422A (RS-422A) and EIA-485 (RS-485) standard

Ethernet Communication Interface (/C7)

Measurement value output and setting parameter input/output
Transmission media: 10 Base-T
Protocol: TCP, IP, UDP, ICMP, ARP

FAIL/Chart End Detection and Output (/F1)

In CPU error occurrence or the chart end, output relay is activated.
Relay contact rating: 250 VDC/0.1 A (resistance load), 250 VAC (50/60 Hz) /3 A

Clamped Input Terminal (/H2): Clamped input

Non-glare Door Glass (/H3)

Non-glare door glass for front door

Portable Type (/H5 [J])

Provides carrying handle and power code

Mathematical Function (/M1)

Number of computation channel: 8 channels (pen model), 12 channels (μR10000 dot model), 24 channels (μR20000 dot model)
Arithmetic operation (+, -, ×, ÷), Square, Absolute, Common logarithm (y=log10x), Exponential (eX), Power (Xn), Relational operator (<, ≤, >, ≥, =, ≠), Logic (AND, OR, NOT, XOR)
Statistical computation: Statistical type: MAX, MIN, AVE, SUM, MAX-MIN
Computation channel can be recorded

Cu10, Cu25 RTD Input (/N1)

Cu10, Cu25 RTD input
Pt100 and JPt100 inputs can be used together.

3 Legs Isolated RTD Input (/N2)

A, B, b legs of RTD are isolated for dot model

Expansion Inputs (/N3)

Following input types can be supported besides standard inputs.
TC: PR40-20, PLATINEL, NiNiMo, W/WRe26, Type N (AWG14), Kp vs Au7Fe
RTD: Pt25, Pt50, Ni100 (SAMA), Ni100 (DIN), Ni120, J263*B, Cu53, Cu100
*Cu100: α=0.00425 at 0°C

24V DC/AC Power Supply (/P1)

Rated power supply: 24 V DC/AC
Allowable power supply voltage range: 21.6 to 26.4 V DC/AC
Rated power supply frequency: 50/60 Hz

Remote Control (/R1)

Below actions can be assigned to up to 5 points
Recording start/stop, Chart speed change, Message printout start, Manual printout start, Alarm ACK, Time set, Math start/stop, Math reset etc.

Calibration Correction (/CC1)

Corrects the measurement value of each channel using segment linearizer approximation.
Number of segment points: 2 to 16

Header Printout (/BT1)

Batch name, comment, time, chart speed are printed in record Start/Stop.
/R1 option allows you to execute functions of /BT1 easily by a contact input.

SD Memory Card (/EM1)

SD memory cards can be used as external storage media. Measured data can be saved and replayed (dot model only), and setting parameters can be saved and loaded.

Model Codes

μR10000

Model Code	Suffix Code	Option Code	Description
436101			μR10000 1 pen recorder
436102			μR10000 2 pen recorder
436103			μR10000 3 pen recorder
436104			μR10000 4 pen recorder
436106			μR10000 6 dot recorder
Language	-2		English / German ¹⁰ / French ¹⁰ degF & DST
Option	/A1		Alarm output relay (2 contacts) ¹
	/A2		Alarm output relay (4 contacts) ¹
	/A3		Alarm output relay (6 contacts) ^{1,2}
	/BT1		Header printout
	/C3		RS-422A/485 communication interface ⁴
	/C7		Ethernet communication interface ³
	/CC1		Calibration Correction
	/EM1		SD memory card ⁴
	/F1		FAIL/chart end detection and output ²
	/H2		Clamped input terminal ⁵
	/H3		Non-glare door glass
	/H5[] ⁹		Portable Type ⁸
	/M1		Mathematical function
	/N1		Cu10, Cu25 inputs
	/N2		3 legs Isolated RTD ^{5,6}
/N3		Expansion inputs ⁷	
/P1		24V DC/AC Power Supply ⁸	
/R1		Remote control (5 contacts)	

1: Only one of /A1, /A2, /A3 can be selected; 2: /A3 and /F1 can not be specified together; 3: /C3 and /C7 can not be specified together; 4: /C3 and /EM1 can not be specified together; 5: /H2 and /N2 can not be specified together; 6: /N2 can be specified only for dot model; 7: 14 types inputs: Pt50 RTD, PR40-20, PLTINEL TC etc.; 8: /H5[] and /P1 can not be specified together; 9: /H5[] (D-Power cord UL, CSA st'd, F-Power cord VDE st'd, R-Power cord SAA st'd, J-Power cord BS st'd, H-Power cord GB st'd); 10: Available from firmware version R1.21

μR20000

Model Code	Suffix Code	Option Code	Description
437101			μR20000 1 pen recorder
437102			μR20000 2 pen recorder
437103			μR20000 3 pen recorder
437104			μR20000 4 pen recorder
437106			μR20000 6 dot recorder
437112			μR20000 12 dot recorder
437118			μR20000 18 dot recorder
437124			μR20000 24 dot recorder
Language	-2		English/German ¹² / French ¹² , degF & DST
Option	/A1		Alarm output relay (2 contacts) ¹
	/A2		Alarm output relay (4 contacts) ¹
	/A3		Alarm output relay (6 contacts) ¹
	/A4		Alarm output relay (6 contacts) ¹
	/A5		Alarm output relay (12 contacts) ^{1,2}
	/A5		Alarm output relay (24 contacts) ^{1,3,4}
	/BT1		Header printout
	/C3		RS-422A/485 communication interface ⁵
	/C7		Ethernet communication interface ⁵
	/CC1		Calibration Correction
	/EM1		SD memory card ⁶
	/F1		FAIL/chart end detection and output ^{2,3}
	/H2		Clamped input terminal ⁷
	/H3		Non-glare door glass
	/H5[] ¹¹		Portable Type ¹⁰
/M1		Mathematical function	
/N1		Cu10, Cu25 inputs	
/N2		3 legs Isolated RTD ^{7,8}	
/N3		Expansion inputs ⁹	
/P1		24V DC/AC Power Supply ¹⁰	
/R1		Remote control (5 contacts)	

1: only one of /A1, /A2, /A3, /A4, /A5 can be selected; 2: /A4 and /F1 can not be specified together for pen model; 3: /A5 and /F1 can not be specified together; 4: /A5 can be specified only for dot model; 5: /C3 and /C7 can not be specified together; 6: /C3 and /EM1 can not be specified together; 7: /H2 and /N2 can not be specified together; 8: /N2 can be specified only for dot model; 9: 14 types inputs: Pt50 RTD, PR40-20, PLTINEL TC etc.; 10: /H5[] and /P1 can not be specified together; 11: /H5[] (D-Power cord UL, CSA st'd, F-Power cord VDE st'd, R-Power cord SAA st'd, J-Power cord BS st'd, H-Power cord GB st'd); 12: Available from firmware version R1.21

Model Code	Description	OS
RXA10-01	RXA10 configuration software	Windows 8.1/10
RXA10-02	RXA10 configuration software (With interface unit)	Windows 8.1/10

Notes on using the RXA10 Configuration Software

When the /EM1 recorder option is specified, the interface unit supplied with the RXA10 Configuration Software cannot be used. If you need to use the RXA10 Configuration Software, specify the /C7 recorder option (Ethernet communication interface) and also purchase the RXA10-01.

Standard Accessories

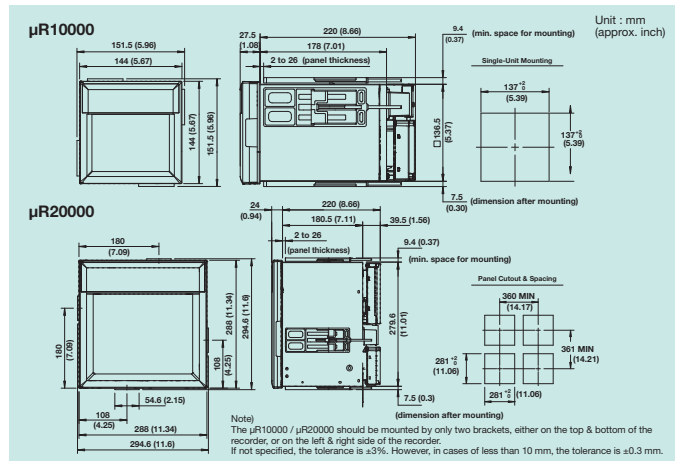
Name	1 pen	2 pen	3 pen	4 pen	dot
Z-fold chart	1	1	1	1	1
6 color ribbon cassette	—	—	—	—	—
	Red	1	1	1	1
	Green	—	1	1	1
	Blue	—	—	1	1
Disposable felt-pen cartridge	—	—	—	—	—
	Blue	—	—	1	1
	Violet	—	—	—	1
Plotter pen	Purple	1	1	1	1
SD memory card (1 GB, with the /EM1 option)	1	1	1	1	1
Mounting brackets	2	2	2	2	2
Operation manual	1	1	1	1	1

Spares/Optional Accessories

Name	Model Code (Parts No.)	Specification
Z-fold chart	for μR10000 B9565AW for μR20000 B9573AN	10 (sales unit)
6 color ribbon cassette	for μR10000 B9901AX for μR20000 B9906JA	1 (sales unit)
	Red B9902AM Green B9902AN Blue B9902AP Violet B9902AQ	1 (sales unit, 3 piece/unit)
Disposable felt-pen cartridge	Purple B9902AR	1 (sales unit, 3 piece/unit)
Plotter pen	Purple B9902AR	1 (sales unit, 3 piece/unit)
SD memory card (1GB)	773001	1 (sales unit)
Mounting brackets	B9900BX	2 (sales unit)
Shunt resistor (for screw input terminal)	415920	250 Ω ±0.1%
	415921	100 Ω ±0.1%
	415922	10 Ω ±0.1%
Shunt resistor (for clamped input terminal)	438920	250 Ω ±0.1%
	438921	100 Ω ±0.1%
	438922	10 Ω ±0.1%



Dimensions



NOTICE

- Before operating the product, read the instruction manual thoroughly for proper and safe operation.
- If this product is for use with a system requiring safeguards that directly involve personnel safety, please contact the Yokogawa sales offices.

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