

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[])**
 - 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, 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
- Calibration Correction (/CC1)**
 - Corrects the measurement value of each channel using segment linearizer approximation.
 - Number of segment points: 2 to 16

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 ⁹ /French ⁹ , 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}
	/C3		RS-422A/485 communication interface ³
	/C7		Ethernet communication interface ³
	/F1		FAIL/chart end detection and output ²
	/H2		Clamped input terminal ⁴
	/H3		Non-glare door glass
	/H5[] ⁸		Portable Type ⁷
	/M1		Mathematical function
	/N1		Cu10, Cu25 inputs
	/N2		3 legs Isolated RTD ^{4, 5}
/N3		Expansion inputs ⁶	
/P1		24V DC/AC Power Supply ⁷	
/R1		Remote control (5 contacts)	
/CC1		Calibration Correction	

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: /H2 and /N2 can not be specified together, 5: /N2 can be specified only for dot model, 6: 14 types inputs: Pt50 RTD, PR40-20, PLTINEL TC etc., 7: /H5[] and /P1 can not be specified together, 8: /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), 9: Available from firmware version R1.21

μR 20000

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 ¹¹ /French ¹¹ , 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 (12 contacts) ^{1, 2}
	/A5		Alarm output relay (24 contacts) ^{1, 3, 4}
	/C3		RS-422A/485 communication interface ⁵
	/C7		Ethernet communication interface ⁵
	/F1		FAIL / Chart end detection and output ^{2, 3}
	/H2		Clamped input terminal ⁶
	/H3		Non-glare door glass
	/H5[] ¹⁰		Portable Type ⁹
	/M1		Mathematical function
/N1		Cu10, Cu25 RTD input	
/N2		3 legs isolated RTD input ^{6, 7}	
/N3		Expansion inputs ⁸	
/P1		24V DC/AC Power Supply ⁹	
/R1		Remote controls (5 contacts)	
/CC1		Calibration Correction	

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: /H2 and /N2 can not be specified together, 7: /N2 can be specified only for dot model, 8: 14 types inputs: Pt50 RTD, PR40-20, PLTINEL TC etc., 9: /H5[] and /P1 can not be specified together, 10: /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), 11: Available from firmware version R1.21

Model Code	Description	OS
RXA10-01	RXA10 configuration software*	Windows 2000/XP
RXA10-02	RXA10 configuration software* (With interface unit)	Windows 2000/XP

* The support of μR20000 is from R2.01 version.

Standard Accessories

Name	1 pen	2 pen	3 pen	4 pen	dot	
Z-fold chart	1	1	1	1	1	
6 color ribbon cassette	-	-	-	-	1	
Disposable felt-pen cartridge	Red	1	1	1	-	
	Green	-	1	1	-	
	Blue	-	-	1	1	-
	Violet	-	-	-	1	-
Plotter pen	Purple	1	1	1	1	-
Mounting brackets	2	2	2	2	2	
Instruction manual (CD-ROM)	1	1	1	1	1	
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)
Disposable felt-pen cartridge	Red	B9902AM 1 (sales unit, 3 piece/unit)
	Green	B9902AN 1 (sales unit, 3 piece/unit)
	Blue	B9902AP 1 (sales unit, 3 piece/unit)
	Violet	B9902AQ 1 (sales unit, 3 piece/unit)
Plotter pen	Purple	B9902AR 1 (sales unit, 3 piece/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%

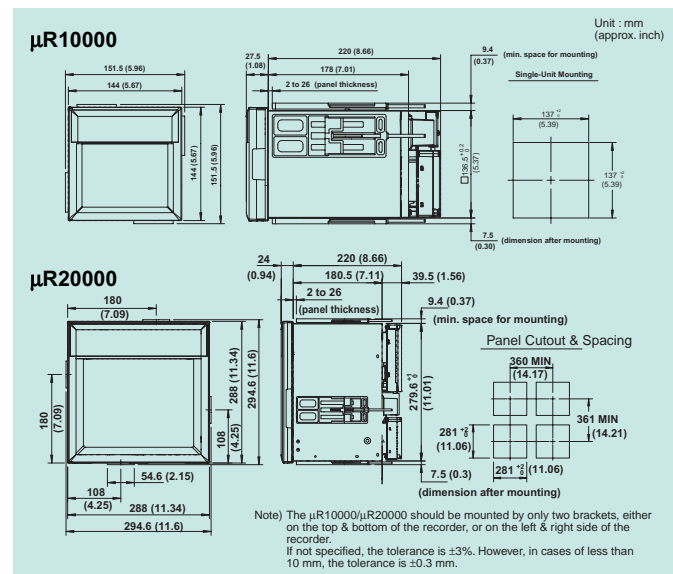


Disposable felt-pen, Plotter pen



6 color ribbon cassette

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.