AH4000 series is a hybrid recorder which employs bright and clear, easy to view LCD display.

Measuring value display is prepared as 1 point display, multi-points simultaneous display and digital display + bar graph display. Various measuring and recording settings can be easily done by front key switch and confirmed by LCD digital display.

Equipped with SD card (sold separately) and it can record data, read and write setting value

Corresponds to SD card Equipped with SD card (sold separately) and it can record data, read and write setting value.

Full multi range Equipped with DC voltage 10 kinds, T/C 36 kinds, RTD 12 kinds, in total 58 kinds. Easily set the range per channels.

Easy data management by communication interface Provided with USB port and connect with PC directly. RS232C, RS422A, RS485 and Ethernet communication interface is optionally prepared. When Ethernet is selected, settings from the web and E-mail alarm notification are added.

Package Software By Data acquisition software, the use of application expands from

recording/management to information processing. Data analysis software can replay display, wave process, editing and trend display. Parameter setting software can manage the setting information on PC.

Standard alarm display/ Printing function Set 4 types of alarm per each input points. When alarm occurs, status display "ALM" flashes and measuring value flashes at LCD operation screen.

Chart end detection function available Can set the alarm operation when chart end is detected.

Various programming function Process the measured data by programming setting and

displayed/recorded data of each channels are shown as programmed result data.

INPUT SPECIFICATIONS	
Measuring points	6, 12, 24
	DC voltage: ±13.8mV, ±27.6mV, ±69.0mV, ±200mV, ±500mV, ±2V,±5V, ±10V, ±50V, ±50V DC current: Max 50mA by external shunt resistor (100Ω, 250Ω) (sold separately) Thermocouples: K, E, J, T, R, S, B, N, U, L, W-WRe26, WRe5-WRe26, PtRh40-PtRh20, NiMo-Ni, CR-AuFe, Platinel, Au/Pt Resistance thermometers: Pt100, old Pt100, JPt100, Pt50, Pt-Co
Accuracy rating	
Measuring interval	1 second/6 points, 2 seconds/12 points, 2 seconds/24 points
Input resolution	About 1/40,000 or better (converted to reference range)
Reference junction compensation accuracy	At ambient temperature:23℃±10℃ K, E, J, T, N Platinel±0.5℃ or EMF 20µV, whichever greater Other than above±1.0℃ or EMF 40µV, whichever greater
Burnout	Burnout detection function for thermocouple input and RTD input. Upper burnout, lower burnout or burnout disabled is selectable for each input.
Maximum common mode voltage	30V AC/60V DC
Common mode rejection ratio	130dB or more (50/60Hz)
Normal mode rejection ratio	50dB or more (50/60Hz)
Terminal board	Removable when wiring



Analog display LCD bar graph 180mm Digital display Monographic type LCD (Backlight AUTO / Always ON settable) Dots : 264 x 48 dots Display area : 164 x 22mm Display item All channels simultaneous display, year/month/day, hour/minute, alarm activate channel, chart speed display of measuring value. Status display REO, CARD, ALM ALARM DISPLAY Alarm types Alarm type Absolue alarm, differential alarm, rate-ofchange alarm, FALL, calendar timer, chart end Alarm settings Individual settings, Max 4 levels/channel Alarm output Mechanicar lergy 2, 6, 12, 24 points (°a' contact) Mechanical relay 4, 8, 16 points (°a' contact) STANDARDS (CONFORMITY PENDIG) CE marking CE marking EN6120-1 140rder EMC test condition, variation in indication value is ±20% or ±2mV at maximum, whichever is larger. UL UL 61010-1 2nd edition CSA (C-UL) CAN/CSA C22 2 No 61010-1-04 Protoction FE co60529 IP54 RECORDING SPECIFICATIONS Secondispoint 1, 2.5 secondspoint Interlock to chart speed Recording method Vier col type Colar inbin at most Via 4, 3, 16 points (°a' contact) Recording method 16 50509 IP54 RECORDING SPECIFICATIONS Dotting introval Dotting introval 5 secondspoint n, in tramet	DISPLAY SPECIFICATIONS		
Digital display Monographic type LCD (Backlight AUTO / Always ON settable) Dots : 264 x 48 dots Display area : 144 x 22mm Display item All channels simultaneous display, year/month/day, hour/minute, alarm activate channel, chart speed display of measuring value. Status display REC, CARD, ALM ALARM DISPLAY REC, CARD, ALM Alarm display Status display '74.LM" flash, measuring value flash at operation screen Alarm display Status display '74.LM" flash, measuring value flash at operation screen Alarm sites Individual settings, Max 4 levels/channel Alarm sites Individual settings, Max 4 levels/channel Alarm display Status display '74.LM" flash, measuring value flash at operation screen Alarm sites Individual settings, Max 4 levels/channel Alarm sites Individual settings, Max 4 levels/channel Alarm sites Individual settings, Max 4 levels/channel Alarm stripper EN61010-1 '104 detition CE marking EN61010-1 '104 detition CSA (C-UL) CANICSA C222 No 61010-1-04 Protection IEC 60529 IP54 Record/Printed color Fan-fold type Total width 200mm, total length 20m, effective channel no., data, unit Interval (hourtime) arbitray setting			
Speed display of measuring value. Status display REC, CARD, ALM ALARM DISPLAY Alarm display Status display "ALM" flash, measuring value flash at operation screen Alarm types Absolute alarm, differential alarm, rate-ofchange alarm, FAIL, calendar timer, chart end Alarm output Mechanical relay 2, 6, 12, 24 points (a' contact) Mechanical relay 4, 8, 16 points (c' contact) STADARDS (CONFORMITY PENDING) EN61326-1 EN61010-1 *Under EMC test condition, variation in indication value is ±20% or ±2mV at maximum, whichever is larger. UL UL6110-1 2nd edition EcoRDING SPECIFICATIONS Dotting interval 5 seconds/point, 2.5 seconds/point Interlock to chart speed Record/Printed color Chart paper Fan-fold type Total width 200mm, total length 20m, effective chart width 180mm Chart speed 1 to 1500mm Chart paper Fan-fold type Total width 200mm, total length 20m, effective chart width 180mm Chart speed 1 to 1500mm Ording at printing Where duitary setting Old at printing Digital printing is added to trace printing at month / day, time, channel no., data, unit Interval (nourright additary setting) Decording method Where required, interrupt trace printing and digital print time and measuring value Alarm printing Alarm activated Time, cha		Monographic type LCD (Backlight AUTO / Always ON settable) Dots : 264 x 48 dots Display area :	
Status display REC, CARD, ALM ALARM DISPLAY Alarm display Status display "ALM" flash, measuring value flash at operation screen Alarm types Absolute alarm, differential alarm, rate-orchange alarm, FALL, calendar timer, chart end Alarm types Absolute alarm, differential alarm, rate-orchange alarm, FALL, calendar timer, chart end Alarm strings Individual settings, Max 4 levels/channel Alarm output Mechanical relay 2, 6, 12, 24 points ('c' contact) STANDARDS (CONFORMITY PENDING) EN61326-1 EN61010-1 "Under EMC test condition, variation in indication value is ±20% or ±2mV at maximum, whichever is larger. UL UL61010-1 Tand edition CSA (C-UL) CAN/CSA C22.2 No.81010-1-04 Protection FIEC 60529 IP54 Recording method Wire-dot type 6-color ribbon Recording method Wire-dot type 16-color ribbon Chart speed 1 to 1500mm /h, in fmm/h increments (12.5mm /h can be set exceptionally) Periodic data printing Digital printing is added to trace printing and digital print time and measuring value Alarm activated — Time, channel no., alarm type and level Alarm reset — Time, channel no., alarm level Memory capacity — Max. 48 data List printing When required Up to 15 characters/message, register up to 20 characters	Display item		
Alarm display Status display "ALM" flash, measuring value flash at operation screen Alarm settings Absolute alarm, differential alarm, rate-ofchange alarm, FAIL, calendar timer, chart end Alarm settings Individual settings, Max 4 levels/channel Alarm settings Individual settings, Max 4 levels/channel Alarm settings Extension (c contact) STANDARDS (CONFORTY PENDING) Extension CE marking Extension IL UL 61010-1 2nd edition CSA (C-UL) CANCSA C22.2 No 61010-1-04 Protection FIE C60529 IP54 RECORDING SPECIFICATIONS Dotting interval Dotting interval 5 seconds/point, 2.5 seconds/point latefock to chart speed Recording method Wire-dot type 6-color ribbon Record/Printed color Chart speed Chart speed 1 to 1500mm / h, in mm/h increments (12.5mm / h can be set exceptionally) Periodic data printing When required, interrupt trace printing at month / day, time, channel no., alarm level Memory capacity Max. 48 data List printing When required, interrupt trace printing and print date, chart speed and setting information of each channel Alarm printing Print vhen required up to 15 characters/message, reg	Status display		
Alarm types Absolute alarm, differential alarm, rate-ofchange alarm, FAIL, calendar timer, chart end Alarm settings Individual settings, Max 4 levels/channel Alarm output Mechanical relay 2, 6, 12, 24 points (° contact) Mechanical relay 4, 8, 16 points (° contact) STANDARDS (CONFORMITY PENDING) EN61326-1 EN61010-1 *Under EMC test condition, variation in indication value is ±20% or ±2mV at maximum, whichever is larger. UL UL61010-1 2nd edition CSA (C-UL) CANICSA C22.2 No 61010-1-04 Protection IEC 60529 IP54 RecordDirined color Seconds/point, 2.5 seconds/point Interlock to chart speed RecordIng method Wire-dot type 5-color ribbon Fan-fold type Total width 200mm, total length 20m, effective chart width 180mm Chart paper Fan-fold type Total width 200mm, total length 20m, effective chart width 180mm Chart speed 1 to 1500mm / h, in firmm/h increments (12.5mm / h can be set exceptionally) Periodic data printing Digital printing is added to trace printing and digital print time and measuring value Alarm activated Time, channel no., alarm type and level Alarm reset Time, channel no., alarm level Memory capacity Max. 48 data List printing Print when required Up to 15 characters/message, register up to 20 characters Solution of each channel Message printing Print when required Up to 15 characters/mess			
Alarm settings Individual settings, Max 4 levels/channel Alarm output Mechanical relay 2, 6, 12, 24 points ("a' contact) Mechanical relay 4, 8, 16 points ("c' contact) STANDARDS (CONFORMITY PENDING) Enk 1326-1 ENk 1010-1 "Under EMC test condition, variation in indication value is ±20% or ±2mV at maximum, whichever is larger. UL UL UL 61010-1 2nd edition CSA (C-UL) CAN/CSA C22 2 No 61010-1-04 Protection IEC 60529 IP54 Record/Printed color Seconds/point, 2.5 seconds/point Interlock to chart speed Record/Printed color Fan-fold type Total width 200mm, total length 20m, effective chart width 180mm Chart speed 1 to 1500mm / h, in mm/h increments (12.5mm / h can be set exceptionally) Periodic data printing Digital printing is added to trace printing and digital print time and measuring value Alarm printing When required, interrupt trace printing and digital print time and measuring value Alarm printing When required Up to 15 characters/message, register up to 20 characters ON/OFF of display Select ON / OFF of display per each channel, trace recording to chart, digital recording to chart, recording to SD card Recording Periodic Display in time and measuring value or between reference value (set value) and measuring value or between reference value (set value) and measuring value or betwe	Alarm display	Status display "ALM" flash, measuring value flash at operation screen	
Alarm output Mechanical relay 2, 6, 12, 24 points ('a' contact) Mechanical relay 4, 8, 16 points ('c' contact) STANDARDS (CONFORMITY PENDING) EN61326-1 EN61010-1 *Under EMC test condition, variation in indication value is ±20% or ±2mV at maximum, whichever is larger. UL UL61010-1 2nd edition CSA (C-UL) CAN/CSA C22.2 No.61010-1-04 Protection IEC 60529 IP54 RECORDING SPECIFICATIONS Dotting interval Dotting interval 5 seconds/point 1.5 seconds/point Interlock to chart speed Recording method Wire-dot type 6-color ribbon Record/Printed color Fan-fold type Total width 200mm, total length 20m, effective chart width 180mm Chart paper Fan-fold type Total width 200mm /h, in Temments (12.5mm / h can be set exceptionally) Definiting Digital printing is added to trace printing at moth / day, time, channel no., data, unit Interval (hour/time) arbitray setting Data printing When required, interrupt trace printing and print date, chart speed and setting information of each channel Alarm printing Alarm activated Time, channel no., alarm type and level Alarm reset Time, channel no., alarm level Memory capacity Max. 48 data List printing When required, interrupt trace printing at print date, chart speed and setting information of each channel Subtract printing 2 / 3 / 4 divisions <t< th=""><th>Alarm types</th><th>Absolute alarm, differential alarm, rate-ofchange alarm, FAIL, calendar timer, chart end</th></t<>	Alarm types	Absolute alarm, differential alarm, rate-ofchange alarm, FAIL, calendar timer, chart end	
STANDARDS (CONFORMITY PENDING) CE marking EN61326-1 EN61010-1*Under EMC test condition, variation in indication value is ±20% or ±2mV at maximum, whichever is larger. UL UL UL61010-1 2nd edition CSA (C-UL) CAN/CSA C22 2 No.61010-1-04 Protection IEC 60529 IP54 RECORDING SPECIFICATIONS 5 seconds/point, 2.5 seconds/point Interlock to chart speed Recording method Wire-dot type 6-color ribbon Record/Printed color Chart speed Chart speed 1 to 1500mm / h, in 1mm/h increments (12.5mm / h can be set exceptionally) Digital printing is added to trace printing and digital print time and measuring value Alarm printing When required, interrupt trace printing and digital print time and measuring value Alarm printing When required, interrupt trace printing and print date, chart speed and setting information of each channel List printing When required up to 15 characters/message, register up to 20 characters ON/OFF of display and recording Select ON / OFF of display per each channel, trace recording to chart, recording to SD card Subtract printing Record difference between reference channel and measuring value or between reference value (set value) and measuring value Compressed/Expand ed printing Rarge limit is made non-linear and specific chart recording lower/upper limit is	Alarm settings	Individual settings, Max 4 levels/channel	
CE marking EN61326-1 EN81010-1 *Under EMC test condition, variation in indication value is ±20% or ±2mV at maximum, whichever is larger. UL UL61010-1 2nd edition CSA (C-UL) CAN/CSA C22.2 No.61010-1-04 Protection IEC 60529 IP54 RECORDING SPECIFICATIONS Dotting interval Secondly gmethod Seconds/point, 2.5 seconds/point Interlock to chart speed Record/Printed color Fan-fold type Total width 200mm, total length 20m, effective chart width 180mm Chart paper Fan-fold type Total width 200mm, total length 20m, effective chart width 180mm Chart paper Fan-fold type Total width 200mm, total length 20m, effective chart width 180mm Chart paper Fan-fold type Total width 200mm, total length 20m, effective chart width 180mm Chart paper Fan-fold type Total width 200mm, total length 20m, effective chart width 180mm Chart paped 1 to 1500mm / h. in mm/h increments (12.5mm / h can be set exceptionally) Digital printing is added to trace printing and digital print time and measuring value Alarm activated Time, channel no., alarm type and level Alarm reset Time, channel no., alarm level Memory capacity Max. 48 data List printing When required up to 15 characters/message, register up to 20 characters ON/OFF of display Select ON / OFF of d			
at maximum, whichever is larger. UL UL61010-1 2nd edition CSA (C-UL) CANICSA C22.2 No.61010-1-04 Protection IEC 0529 IP54 RECORDIG SPECIFICATIONS Dating interval D second/printed color S seconds/point, 2.5 seconds/point Interlock to chart speed Record/infinited color Fan-fold type Total width 200mm, total length 20m, effective chart width 180mm Chart speed 1 to 1500mm /h, in 1mm/h increments (12.5mm / h can be set exceptionally) Periodic data printing Digital printing is added to trace printing at month / day, time, channel no., data, unit Interval (four/time) arbitrary setting Data printing When required, interrupt trace printing and digital print time and measuring value Alarm printing Alarm cluvated Time, channel no., alarm type and level Alarm reset Time, channel no., alarm level Memory capacity Max. 48 data List printing When required Up to 15 characters/message, register up to 20 characters ON/OFF of display Select ON / OFF of display per each channel, trace recording to chart, figital recording to chart, recording to SD card Z/3 / 4 divisions Compressed/Expand ed printing Compressed/Expand ed printing Range limit is made non-linear and specific chart recording lower/upper limit is shrunk or expanded Automat	STANDARDS (CONFORMITY PENDING)		
UL UL61010-1 2nd edition CSA (C-UL) CAN/CSA C22.2 No.61010-1-04 Protection IEC 60529 IP54 RECORDING SPECIFICATIONS Dotting interval S seconds/point, 2.5 seconds/point Interlock to chart speed Recording method Recording method Wire-dot type 6-color ribbon Record/Printed color Chart paper Chart paper Fan-fold type Total with 200mm, total length 20m, effective chart width 180mm Chart speed 1 to 1500mm / h, in 1mm/h increments (12.5mm / h can be set exceptionally) Detide data printing Digital printing is added to trace printing at month / day, time, channel no., data, unit Interval (hourftime) arbitrary setting Data printing When required, interrupt trace printing and digital print time and measuring value Alarm printing Alarm activated Time, channel no., alarm type and level Alarm reset Time, channel no., alarm level Memory capacity Max. 48 data List printing When required, interrupt trace printing and print date, chart speed and setting information of each channel Message printing Print when required up to 15 characters/message, register up to 20 characters ON/OFF of display Select ON / OFF of display pre each channel, trace recording to chart, recording to SD card Subtract printing <td< th=""><th>CE marking</th><th></th></td<>	CE marking		
CSA (C-UL) CAN/CSA C22.2 No.61010-1-04 Protection IEC 60529 IP54 RECORDIG SPECIFICATIONS 5 seconds/point, 2.5 seconds/point Interlock to chart speed Record/mined color 6 seconds/point, 2.5 seconds/point Interlock to chart speed Record/mined color 7 and the second			
Protection IEC 60529 IP54 RECORDING SPECIFICATIONS Dotting interval 5 seconds/point, 2.5 seconds/point Interlock to chart speed Recording method Wire-dot type 6-color ribbon Record/Printed color Chart apper Chart apper Fan-fold type Total width 200mm, total length 20m, effective chart width 180mm Chart apper Fan-fold type Total width 200mm, total length 20m, effective chart width 180mm Chart apper Fan-fold type Total width 200mm, total length 20m, effective chart width 180mm Chart apper Fan-fold type Total width 200mm, total length 20m, effective chart width 180mm Chart apper Fan-fold type Total width 200mm, total length 20m, effective chart width 180mm Chart apper Fan-fold type Total width 200mm, total length 20m, effective chart width 180mm Chart apper I to 1500mm / h, in 1mm/h increments (12.5mm / h can be set exceptionally) Dita printing Dita printing at month / day, time, channel no., data, unit Interval (hour/time) arbitrary setting Data printing When required, interrupt trace printing and print date, chart speed and setting information of each channel List printing When required Up to 15 characters/message, register up to 20 characters ON/OFF of display pre ach channel, trace recording to chart, recording to SD card <th></th> <th></th>			
RECORDING SPECIFICATIONS Dotting interval 5 seconds/point, 2.5 seconds/point Interlock to chart speed Recording method Wire-dot type 6-color ribbon Record/Printed color Chart paper Chart paper Fan-fold type Total width 200mm, total length 20m, effective chart width 180mm Chart speed 1 to 1500mm / h, in mm/h increments (12.5mm / h can be set exceptionally) Digital printing is added to trace printing at month / day, time, channel no., data, unit Interval (hour/time) arbitrary setting Data printing When required, interrupt trace printing atmoth / day, time, channel no., alarm level Memory capacity Max. 48 data List printing When required, interrupt trace printing and print date, chart speed and setting information of each channel ON/OFF of display Select ON / OFF of display per each channel, trace recording to chart, digital recording to chart, recording to SD card Subtract printing Print when required up to 15 characters/message, register up to 20 characters Compressed/Expand ed printing Record difference between reference channel and measuring value or between reference value (set value) and measuring value Zone printing 2/ 3 / 4 divisions Compressed/Expand ed printing are mole. Race ording range is shifted automatically to another set range when measured value exceeds the current range. Overlap function available <th></th> <th></th>			
Dotting interval 5 seconds/point, 2.5 seconds/point Interlock to chart speed Record/Printed color Wire-dot type 6-color ribbon Chart speed Fan-fold type Total width 200mm, total length 20m, effective chart width 180mm Chart speed 1 to 1500mm / h, in 1mm/h increments (12.5mm / h can be set exceptionally) Digital printing Digital printing is added to trace printing at month / day, time, channel no., data, unit Interval (hour/time) arbitrary setting Data printing When required, interrupt trace printing and digital print time and measuring value Alarm printing Alarm activated Time, channel no., alarm type and level Alarm reset Time, channel no., alarm level Memory capacity Max. 48 data Uist printing When required, interrupt trace printing and print date, chart speed and setting information of each channel Message printing Print when required Up to 15 characters/message, register up to 20 characters Subtract printing Record difference between reference channel, trace recording to chart, recording to SD card Subtract printing Record grapt yere and specific chart recording lower/upper limit is shrunk or expanded ed printing Automatic range shift printing is adde on printeg at notar and specific chart recording lower/upper limit is shrunk or expanded Automatic range shift printing No display or printing of channels of which ranges are not set			
Recording method Wire-dot type 6-color ribbon Record/Printed color Chart paper Fan-fold type Total width 200mm, total length 20m, effective chart width 180mm Chart paper Fan-fold type Total width 200mm, total length 20m, effective chart width 180mm Chart paped 1 to 1500mm / h, in 1mm/h increments (12.5mm / h can be set exceptionally) Deriodic data printing Digital printing is added to trace printing at month / day, time, channel no., data, unit Interval (hour/time) arbitrary setting Data printing When required, interrupt trace printing and digital print time and measuring value Alarm printing When required, interrupt trace printing and print date, chart speed and setting information of each channel Message printing Print when required Up to 15 characters/message, register up to 20 characters ON/OFF of display Select ON / OFF of display per each channel, trace recording to chart, digital recording to chart, recording to SD card Subtract printing Record difference between reference channel and measuring value or between reference value (set value) and measuring value Readed to trace and specific chart recording lower/upper limit is shrunk or expanded Compressed/Expand ed printing Recording range is shifted automatically to another set range when measured value exceeds the current range. Overlap function available Skip function No display or printing of channels of whic			
Record/Printed color Fan-fold type Total width 200mm, total length 20m, effective chart width 180mm Chart paper Fan-fold type Total width 200mm, total length 20m, effective chart width 180mm Chart speed 1 to 1500mm / h, in 1mm/h increments (12.5mm / h can be set exceptionally) Digital printing is added to trace printing at month / day, time, channel no., data, unit Interval (hour/time) arbitrary setting Data printing When required, interrupt trace printing and digital print time and measuring value Alarm printing Alarm activated Time, channel no., alarm type and level Alarm reset Time, channel no., alarm level Memory capacity Max. 48 data List printing When required upt to 15 characters/message, register up to 20 characters ON/OFF of display and required Up to 15 characters/message, register up to 20 characters ON/OFF of display Select ON / OFF of display per each channel, trace recording to chart, recording to SD card Subtract printing 2 / 3 / 4 divisions Compressed/Expand ed printing 2 / 3 / 4 divisions Compressed/Expand ed printing is shifted automatically to another set range when measured value exceeds the current range. Overlap function available No display or printing of channels of which ranges are not set Generates Generate No display or printing of channels of which ranges are not set Gene	The second se		
Chart paper Fan-fold type Total width 200mm, total length 20m, effective chart width 180mm Chart speed 1 to 1500mm / h, in 1mm/h increments (12.5mm / h can be set exceptionally) Deriodic data printing Digital printing is added to trace printing at month / day, time, channel no., data, unit Interval (hour/time) arbitrary setting Data printing When required, interrupt trace printing and digital print time and measuring value Alarm printing Alarm activated Time, channel no., alarm type and level Alarm reset Time, channel no., alarm type and level Alarm reset Time, channel no., alarm level Memory capacity Max. 48 data List printing When required, interrupt trace printing and print date, chart speed and setting information of each channel Message printing Print when required Up to 15 characters/message, register up to 20 characters ON/OFF of display and recording to cDN / OFF of display per each channel, trace recording to chart, digital recording to chart, recording to SD card Subtract printing Range limit is made non-linear and specific chart recording lower/upper limit is shrunk or expanded ed printing Automatic range shift printing Recording range is shifted automatically to another set range when measured value exceeds the current range. Overlap function available Skip function No display or printing of channels of which ranges are not set Generation Max 65VA 100V AC balanced: 22VA 240V AC balanced: 3		wire-dot type 6-color ribbon	
Chart speed 1 to 1500mm / h, in 1mm/h increments (12.5mm / h can be set exceptionally) Deriodic data printing Digital printing is added to trace printing at month / day, time, channel no., data, unit Interval (hour/time) arbitrary setting Data printing When required, interrupt trace printing and digital print time and measuring value Alarm printing Alarm activated Time, channel no., alarm type and level Alarm reset Time, channel no., alarm type and level Alarm reset Time, channel no., alarm level Memory capacity Max. 48 data List printing When required, interrupt trace printing and print date, chart speed and setting information of each channel ON/OFF of display and recording Print when required Up to 15 characters/message, register up to 20 characters Select ON / OFF of display per each channel, trace recording to chart, digital recording to SD card Record difference between reference channel and measuring value or between reference value (set value) and measuring value Zone printing 2 / 3 / 4 divisions Range limit is made non-linear and specific chart recording lower/upper limit is shrunk or expanded Automatic range shift printing Recording range is shifted automatically to another set range when measured value exceeds the current range. Overlap function available Skip function No display or printing of channels of which ranges are not set Max 65VA 100V AC balanced: 22VA 240V AC balanced: 31VA Normal operation conditi		For fold two Total width 200mm total longth 20m offective short width 100mm	
Periodic data printing Digital printing is added to trace printing at month / day, time, channel no., data, unit Interval (hour/time) arbitrary setting Data printing When required, interrupt trace printing and digital print time and measuring value Alarm printing Alarm activated Time, channel no., alarm type and level Alarm reset Time, channel no., alarm type and level Alarm reset Time, channel no., alarm level Memory capacity Max. 48 data List printing When required, interrupt trace printing and print date, chart speed and setting information of each channel Message printing Print when required Up to 15 characters/message, register up to 20 characters ON/OFF of display Select ON / OFF of display per each channel, trace recording to chart, digital recording to chart, recording to SD card Subtract printing Record difference between reference channel and measuring value or between reference value (set value) and measuring value Zone printing 2 / 3 / 4 divisions Compressed/Expand ed printing and printing and print date, set range when measured value exceeds the current range. Overlap function available Skip function No display or printing of channels of which ranges are not set GENERAL SPECIFICATIONS Max 65VA 100V AC balanced: 22VA 240V AC balanced: 31VA Normal operation condition Ambient temperature range: 0 to 50°C (20 to 65%) Ambient temperature range: 20 to 80%RH (5 to 40°C) Power voltage:90 to 264V AC Power frequency:50/60Hz ±2% Attit			
Image: Construction of the second	· · · · · · · · · · · · · · · · · · ·		
Alarm printing Alarm activated Time, channel no., alarm type and level Alarm reset Time, channel no., alarm level Memory capacity Max. 48 data List printing When required, interrupt trace printing and print date, chart speed and setting information of each channel Message printing Print when required Up to 15 characters/message, register up to 20 characters ON/OFF of display and recording Select ON / OFF of display per each channel, trace recording to chart, digital recording to chart, recording to SD card Subtract printing Record difference between reference channel and measuring value or between reference value (set value) and measuring value Zone printing 2 / 3 / 4 divisions Range limit is made non-linear and specific chart recording lower/upper limit is shrunk or expanded Automatic range shift printing Recording range is shifted automatically to another set range when measured value exceeds the current range. Overlap function available Skip function No display or printing of channels of which ranges are not set GENERAL SPECIFICATIONS Max 65VA 100V AC balanced: 22VA 240V AC balanced: 31VA Normal operation condition Ambient temperature range: 0 to 50°C (20 to 65%) Ambient humidity range: 20 to 80%RH (5 to 40°C) Power voltage:90 to 264V AC Power frequency:50/60Hz ±2% Attitude: forward tilting 0°, backward tilting 0 to 30°, left/right 0 to 10°		(hour/time) arbitrary setting	
alarm level Memory capacity Max. 48 data List printing When required, interrupt trace printing and print date, chart speed and setting information of each channel Message printing Print when required Up to 15 characters/message, register up to 20 characters ON/OFF of display Select ON / OFF of display per each channel, trace recording to chart, digital recording to chart, recording to SD card Subtract printing Record difference between reference channel and measuring value or between reference value (set value) and measuring value Zone printing 2 / 3 / 4 divisions Compressed/Expand ed printing Range limit is made non-linear and specific chart recording lower/upper limit is shrunk or expanded Automatic range shift printing Recording range is shifted automatically to another set range when measured value exceeds the current range. Overlap function available Skip function No display or printing of channels of which ranges are not set GENERAL SPECIFICATIONS Max 65VA 100V AC balanced: 22VA 240V AC balanced: 31VA Normal operation condition Ambient temperature range: 0 to 50°C (20 to 65%) Arobient temperature range: 20 to 80%RH (5 to 40°C) Power voltage:90 to 264V AC Power frequency:50/60Hz ±2% Attitude: forward tilting 0 to 30°, left/right 0 to 10°			
List printingWhen required, interrupt trace printing and print date, chart speed and setting information of each channelMessage printingPrint when required Up to 15 characters/message, register up to 20 charactersON/OFF of display and recordingSelect ON / OFF of display per each channel, trace recording to chart, digital recording to chart, recording to SD cardSubtract printingRecord difference between reference channel and measuring value or between reference value (set value) and measuring valueZone printing2 / 3 / 4 divisionsCompressed/Expand ed printingRange limit is made non-linear and specific chart recording lower/upper limit is shrunk or expandedAutomatic range shift printingRecording range is shifted automatically to another set range when measured value exceeds the current range. Overlap function availableSkip functionNo display or printing of channels of which ranges are not setGENERAL SPECIFICATIONSMax 65VA 100V AC balanced: 22VA 240V AC balanced: 31VANormal operation conditionAmbient temperature range: 0 to 50°C (20 to 65%) Ambient humidity range: 20 to 80%RH (5 to 40°C) Power voltage:90 to 264V AC Power frequency:50/60Hz ±2% Attitude: forward tilting 0 to 30°, left/right 0 to 10°	Alarm printing		
each channelMessage printingPrint when required Up to 15 characters/message, register up to 20 charactersON/OFF of display and recordingSelect ON / OFF of display per each channel, trace recording to chart, digital recording to chart, recording to SD cardSubtract printingRecord difference between reference channel and measuring value or between reference value (set value) and measuring valueZone printing2 / 3 / 4 divisionsCompressed/Expand ed printingRange limit is made non-linear and specific chart recording lower/upper limit is shrunk or expandedAutomatic range shift printingRecording range is shifted automatically to another set range when measured value exceeds the current range. Overlap function availableSkip functionNo display or printing of channels of which ranges are not setGENERAL SPECIFICATIONSMax 65VA 100V AC balanced: 22VA 240V AC balanced: 31VANormal operation conditionAmbient temperature range: 0 to 50°C (20 to 65%) Ambient humidity range: 20 to 80%RH (5 to 40°C) Power voltage:90 to 264V AC Power frequency:50/60Hz ±2% Attitude: forward tilting 0°, backward tilting 0 to 30°, left/right 0 to 10°			
ON/OFF of display and recordingSelect ON / OFF of display per each channel, trace recording to chart, digital recording to chart, recording to SD cardSubtract printingRecord difference between reference channel and measuring value or between reference value (set value) and measuring valueZone printing2 / 3 / 4 divisionsCompressed/Expand ed printingRange limit is made non-linear and specific chart recording lower/upper limit is shrunk or expandedAutomatic range shift printingRecording range is shifted automatically to another set range when measured value exceeds the current range. Overlap function availableSkip functionNo display or printing of channels of which ranges are not setGENERAL SPECIFICATIONSRated power voltage100 to 240VAC, 50/60HzMaximum power consumptionMax 65VA 100V AC balanced: 22VA 240V AC balanced: 31VANormal operation conditionAmbient temperature range: 0 to 50°C (20 to 65%) Ambient humidity range: 20 to 80%RH (5 to 40°C) Power voltage:90 to 264V AC Power frequency:50/60Hz ±2% Attitude: forward tilting 0°, backward tilting 0 to 30°, left/right 0 to 10°		each channel	
and recordingrecording to SD cardSubtract printingRecord difference between reference channel and measuring value or between reference value (set value) and measuring valueZone printing2 / 3 / 4 divisionsCompressed/Expand ed printingRange limit is made non-linear and specific chart recording lower/upper limit is shrunk or expandedAutomatic range shift printingRecording range is shifted automatically to another set range when measured value exceeds the current range. Overlap function availableSkip functionNo display or printing of channels of which ranges are not setGENERAL SPECIFICATIONSRated power voltage100 to 240VAC, 50/60HzMaximum power consumptionMax 65VA 100V AC balanced: 22VA 240V AC balanced: 31VANormal operation conditionAmbient temperature range: 0 to 50°C (20 to 65%) Ambient humidity range: 20 to 80%RH (5 to 40°C) Power voltage:90 to 264V AC Power frequency:50/60Hz ±2% Attitude: forward tilting 0°, backward tilting 0 to 30°, left/right 0 to 10°			
Image: Construct of the second seco	and recording	recording to SD card	
Compressed/Expand ed printingRange limit is made non-linear and specific chart recording lower/upper limit is shrunk or expandedAutomatic range shift printingRecording range is shifted automatically to another set range when measured value exceeds the current range. Overlap function availableSkip functionNo display or printing of channels of which ranges are not setGENERAL SPECIFICATIONSRated power voltage100 to 240VAC, 50/60HzMaximum power consumptionMax 65VA 100V AC balanced: 22VA 240V AC balanced: 31VANormal operation conditionAmbient temperature range: 0 to 50°C (20 to 65%) Ambient humidity range: 20 to 80%RH (5 to 40°C) Power voltage:90 to 264V AC Power frequency:50/60Hz ±2% Attitude: forward tilting 0°, backward tilting 0 to 30°, left/right 0 to 10°		(set value) and measuring value	
ed printingRange limit is made non-intear and specific chart recording lower/upper limit is shrunk or expandedAutomatic range shift printingRecording range is shifted automatically to another set range when measured value exceeds the current range. Overlap function availableSkip functionNo display or printing of channels of which ranges are not setGENERAL SPECIFICATIONS100 to 240VAC, 50/60HzMaximum power consumptionMax 65VA 100V AC balanced: 22VA 240V AC balanced: 31VANormal operation conditionAmbient temperature range: 0 to 50°C (20 to 65%) Ambient humidity range: 20 to 80%RH (5 to 40°C) Power voltage:90 to 264V AC Power frequency:50/60Hz ±2% Attitude: forward tilting 0°, backward tilting 0 to 30°, left/right 0 to 10°		2/3/4 divisions	
printingcurrent range. Overlap function availableSkip functionNo display or printing of channels of which ranges are not setGENERAL SPECIFICATIONSRated power voltage100 to 240VAC, 50/60HzMaximum power consumptionMax 65VA 100V AC balanced: 22VA 240V AC balanced: 31VANormal operation conditionAmbient temperature range: 0 to 50°C (20 to 65%) Ambient humidity range: 20 to 80%RH (5 to 40°C) Power voltage:90 to 264V AC Power frequency:50/60Hz ±2% Attitude: forward tilting 0°, backward tilting 0 to 30°, left/right 0 to 10°	ed printing		
GENERAL SPECIFICATIONS Rated power voltage 100 to 240VAC, 50/60Hz Maximum power consumption Max 65VA 100V AC balanced: 22VA 240V AC balanced: 31VA Normal operation condition Ambient temperature range: 0 to 50°C (20 to 65%) Ambient humidity range: 20 to 80%RH (5 to 40°C) Power voltage:90 to 264V AC Power frequency:50/60Hz ±2% Attitude: forward tilting 0°, backward tilting 0 to 30°, left/right 0 to 10°	0		
Rated power voltage100 to 240VAC, 50/60HzMaximum power consumptionMax 65VA 100V AC balanced: 22VA 240V AC balanced: 31VANormal operation conditionAmbient temperature range: 0 to 50°C (20 to 65%) Ambient humidity range: 20 to 80%RH (5 to 40°C) Power voltage:90 to 264V AC Power frequency:50/60Hz ±2% Attitude: forward tilting 0°, backward tilting 0 to 30°, left/right 0 to 10°	Skip function	No display or printing of channels of which ranges are not set	
Maximum power consumptionMax 65VA 100V AC balanced: 22VA 240V AC balanced: 31VANormal operation conditionAmbient temperature range: 0 to 50°C (20 to 65%) Ambient humidity range: 20 to 80%RH (5 to 40°C) Power voltage:90 to 264V AC Power frequency:50/60Hz ±2% Attitude: forward tilting 0°, backward tilting 0 to 30°, left/right 0 to 10°			
consumption Max 65VA 100V AC balanced: 22VA 240V AC balanced: 31VA Normal operation condition Ambient temperature range: 0 to 50°C (20 to 65%) Ambient humidity range: 20 to 80%RH (5 to 40°C) Power voltage:90 to 264V AC Power frequency:50/60Hz ±2% Attitude: forward tilting 0°, backward tilting 0 to 30°, left/right 0 to 10°		100 to 240VAC, 50/60Hz	
condition Ambient humidity range: 20 to 80%RH (5 to 40°C) Power voltage:90 to 264V AC Power frequency:50/60Hz ±2% Attitude: forward tilting 0°, backward tilting 0 to 30°, left/right 0 to 10°		Max 65VA 100V AC balanced: 22VA 240V AC balanced: 31VA	
AC Power frequency:50/60Hz ±2% Attitude: forward tilting 0°, backward tilting 0 to 30°, left/right 0 to 10°			
Case material Door Aluminum die-casting Front panel Glass Case Cold-rolled steel plate	condition	AC Power frequency:50/60Hz ±2% Attitude: forward tilting 0°, backward tilting 0 to 30°, left/right	
	Case material	Door Aluminum die-casting Front panel Glass Case Cold-rolled steel plate	

Case color	Door Black (equivalent of Munsell N3.0) Glass Clear and colorless Case Gray (equivalent of Munsell N7.0)	
Mounting	Panel mounting	
Weight	About 7.6kg	
Terminal screw	Power terminal, Protective conductor terminal M4.0 Measuring input terminal, alarm output terminal Remote contact terminal M3.5 Communication terminal M3.0	
OPTIONS		
Remote contact	By external relay contact signal (digital contact: short or open), you can select chart speed or data printing Input points: 5 points, 10 points, 20 points Input signal: Digital contact signal or open collector signal Exterior output: 5V DC/2mA Function: 1. Record start/stop 2. Chart speed 3-speed switch 3. Data printing 4. List printing 5. Message printing 6. Operation record (Record ON/OFF condition to the designate location by bar line) 7. Integration/F value reset 8. Memory card (record start/stop) 9. Alarm output rest 10.Time correction	
Alarm output	Mechanical relay ('a' contact) 2 points, 6 points, 12 points, 24 points Max. load 100 to 240VAC 0.2A 30V DC 0.2A Min. load 5V DC 10mA Mechanical relay ('c' contact) 4 points, 8 points, 16 points Max. load 100 to 240VAC 0.2A 30V DC 0.2A Min. load 5V DC 10mA	
Communication interface	RS232C, RS422A, RS485, Ethernet	