

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Visit our website - *Click HERE*

RKC®

Digital Temperature Controller

CH SERIES



The CB Series combines easy-to-use operation with the latest temperature control advances at a competitive price.

Specifications

Units : mm

Input
- a) Thermocouple : K, J, R, S, B, E, T, N (JIS/IEC), PLII (NBS) W5Re/W26Re (ASTM)
  - •Influence of external resistance : Approx. 0.2μV/Ω
  - •Input break action : Up-scale
- b) RTD : Pt100 (JIS/IEC), JPt100 (JIS)
  - •Influence of input lead resistance : Approx. 0.01[%/Ω] of reading
  - •Maximum 10Ω per wire
  - •Input break action : Up-scale

Sampling Time : 0.5 sec

Measuring Accuracy
- a) Thermocouple : ±(0.3% of reading + 1 digit) or ±2℃ whichever is larger
  - • Accuracy is not guaranteed between 0 and 399℃ for type R, S and B.
  - • Accuracy is not guaranteed between -199.9 and -100.0℃ for type T and U.
- b) RTD : ±(0.3% of reading + 1 digit) or ±0.8℃ whichever is larger

Control Method : PID control (with autotuning and self-tuning function)

Major Setting Range
- Set value : Same as input range.
- Proportional band : 1 to span or 0.1 to span When 0.1℃ resolution, within 999.9℃ (ON/OFF action when P=0)
- Integral time : 0 to 3600sec.(P + D action when I=0)
- Derivative time : 0 to 3600sec.(P + I action when D=0)
- Anti-Reset Windup(ARW) : 1 to 100% of heat side proportional band
- Proportional cycle time : 1 to 100 sec.

Control Output
- Relay output : Form C contact, 250V AC 3A (resistive load)
- Voltage pulse output : 0/12V DC (Load resistance : More than 600Ω)

Alarm
- a) Temperature Alarm
  - Type : Deviation High, Low, High/Low, Band, Process High, Low, Set value High, Low
- b) Control Loop Break Alarm (LBA)

Alarm Output
- Relay output, Form A contact 250V AC 1A (resistive load)

Supply Voltage
- a) 85 to 264V AC (Including supply voltage variation) [Rating : 100 to 240V AC] (50/60Hz common)
- b) 21.6 to 26.4V AC(Including supply voltage variation) [Rating : 24V AC] (50/60Hz common)
- c) 21.6 to 26.4V DC (Ripple rate 10% p-p or less) [Rating : 24V DC]

Power Consumption
- Less than 10VA for standard AC type
- Less than 5VA for 24V AC type
- Less than 160mA for 24V DC type

Power Failure Effect
- Not affected by power failure shorter than 20msec, otherwise reset to the initial state.

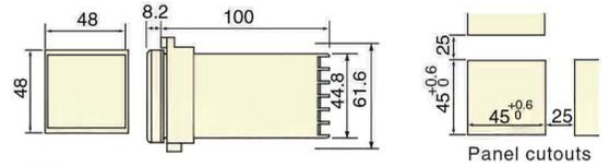
Operating Environments : 0 to 50℃, 45 to 85% RH

Net Weight : CH102 : Approx. 170g
CH402 : Approx. 250g
CH902 : Approx. 340g

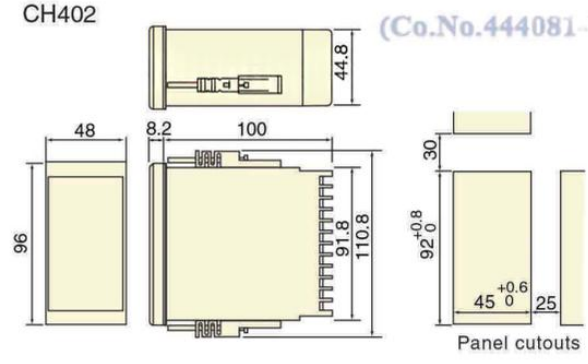
External Dimensions

Units : mm

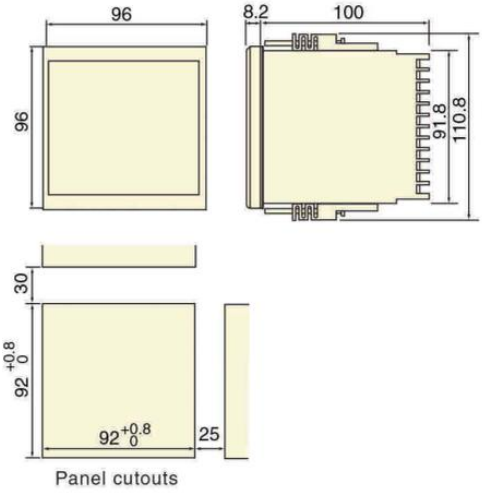
CH102



CH402



CH902



(Co.No.444081-W

Model & Suffix Code

Specifications	Model and Suffix Code
Size	CH102 (48X48mm 1/16 DIN size) CH402 (48X96mm 1/8 DIN size) CH902 (96X96mm 1/4 DIN size) F □□□−□∗□ □−□ □
Control method	PID control with AT (reverse action) F
Input type and Range	See Range and Input Code Table □□□
Control output	Relay output M Voltage pulse V
Alarm 1	No alarm N See Alarm Code Table □
Alarm 2	No alarm N See Alarm Code Table □
Digital communications	Not supplied N
Waterproof/Dustproof	Not supplied N Waterproof/Dustproof protection : IP66 1 (Only front panel in panel mounted installations)

Alarm Code Table

Code	Type
A	Deviation High
B	Deviation Low
C	Deviation High/Low
D	Band Alarm
E	Deviation High with Alarm Hold
F	Deviation Low with Alarm Hold
G	Deviation High/Low with Alarm Hold
H	Process High
J	Process Low
K	Process High with Alarm Hold
L	Process Low with Alarm Hold
R	Loop break alarm (LBA)
V	Set value High
W	Set value Low

Input Code Table

Thermocouple

Input	Code	Range
K	K 01	0 — 200°C
	K 02	0 — 400°C
	K 03	0 — 600°C
	K 04	0 — 800°C
	K 05	0 — 1000°C
	K 06	0 — 1200°C
	K 07	0 — 1372°C
J	J 01	0 — 200°C
	J 02	0 — 400°C
	J 03	0 — 600°C
	J 04	0 — 800°C
	J 05	0 — 1000°C
	J 06	0 — 1200°C
R [1]	R 01	0 — 1600°C
	R 02	0 — 1769°C
S [1]	S 01	0 — 1600°C
	S 02	0 — 1769°C

Input	Code	Range
B [1]	B 01	400 — 1800°C
	B 02	0 — 1820°C
E	E 01	0 — 800°C
	E 02	0 — 1000°C
N	N 01	0 — 1200°C
	N 02	0 — 1300°C
T [2]	T 01	-199.9 — 400.0°C
	T 02	-199.9 — 100.0°C
	T 03	-100.0 — 200.0°C
	T 04	0.0 — 350.0°C
W5Re /W26Re	W 01	0 — 2000°C
	W 02	0 — 2320°C
PL II	A 01	0 — 1300°C
	A 02	0 — 1390°C
	A 03	0 — 1200°C

RTD

Input	Code	Range
Pt100	D 01	-199.9 — 649.0°C
	D 02	-199.9 — 200.0°C
	D 05	-100.0 — 200.0°C
	D 08	0.0 — 200.0°C
	D 10	0.0 — 500.0°C
JPt100	P 01	-199.9 — 649.0°C
	P 02	-199.9 — 200.0°C
	P 05	-100.0 — 200.0°C
	P 08	0.0 — 200.0°C
	P 10	0.0 — 500.0°C

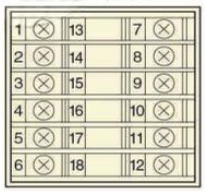
[1] Type R, S and B input : Accuracy is not guaranteed between 0 to 399°C.
[2] Type T input : Accuracy is not guaranteed between -199.9 to -100.0°C.

Supply Voltage

100 - 240V AC
24V AC
24V DC

Rear Terminals

CH102



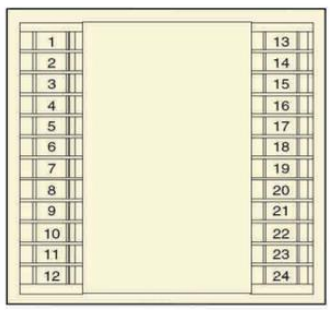
No.	Description	
1 2	AC 100 to 240V, AC 24V, DC+ 24V, -	Power supply
3		
4 5 6	(1) C, NO, NC, (2) +	Control Output (1) Relay contact (2) Voltage pulse

No.	Description	
7 8 9	NO Alarm 2, NO Alarm 1	Alarm output Relay contact
10 11 12	(1) +, (2) A, B, B	Measured input (1) Thermocouple (2) RTD

CH402



CH902



No.	Description	
1 2	L, L, + AC100 to 240V, AC24V, DC24V, N, N, −	Power supply
3		
4 5 6	NO, NC, (1), (2), +	Control Output (1) Relay contact (2) Voltage pulse
7 8 9	NO Alarm 2, NO Alarm 1	Alarm output Relay contact
10 11 12	A, B, B, (1), (2)	Measured input (1) Thermocouple (2) RTD

Safety Warning

- Before operating this product, read the instruction manual carefully to avoid incorrect operation.
- This product is intended for use with industrial machines, test and measuring equipment. It is not designed for use with medical equipment.
- If it is possible that an accident may occur as a result of the failure of the product or some other abnormality, an appropriate independent protection device must be installed.

Caution for imitated products

As products imitating our product now appear on the market, be careful that you don't purchase these imitated products. We will not warrant such products nor bear the responsibility for any damage and/or accident caused by their use.

RKC INSTRUMENT INC.
(RIKA KOGYO CO.,LTD)

HEAD OFFICE : 16-6, KUGAHARA 5 CHOME OHTA-KU TOKYO 146-8515 JAPAN
PHONE : 03-3751-9799 (+81 3 3751 9799)
Email : info@rkcinst.co.jp
FAX : 03-3751-8585 (+81 3 3751 8585)
http://www.rkcinst.com/

Printed in Japan: JAN.2006 All Rights Reserved

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP