

# INDUSTRIAL CONTROL INSTRUMENTS

MAXTHERMO®

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MAXTECH®

## FROM THE PRESIDENT

Since 1978, Maxthermo-Gitta has built up and maintained long-term business relationships with over 200 clients in 100 countries around the world. We have the most professional team in the industry, and it has always been our goal to serve our worldwide clients with our state-of-the-art products, the most innovative R&D, the highest quality, the best service, along with the most competitive price. We have always believed that the support from our clients is our best estate, and that we will endeavor to return our clients with the best service and products.

Best wishes,  
Stone Tsai



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# ITEM

## CONTROL INSTRUMENTS

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## METERS

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# CONTROL INSTRUMENTS

## Ordering Information For Temperature Controllers

MC-		SPECIFICATION					
							SERIES NUMBER
INDICATING	0						0 NON-INDICATING
	1						1 DEVIATION INDICATING WITH ANALOG
	2						2 FULL INDICATING WITH ANALOG
	3						3 FULL INDICATING WITH DIGT
SETTING	0						0 NON-SETTING
	1						1 SINGLE SETTING WITH ANALOG
	2						2 SINGLE SETTING WITH DIGIT
	3						3 MAIN SETTING WITH ANALOG, OPTIONAL HI OR LOW LIMIT WITH ANALOG
	4						4 MAIN SETTING WITH DIGIT, INDIVIDUAL HI & LOW LIMIT WITH ANALOG
	6						6 DUAL SETTING, SET-1 & SET-2 WITH DIGIT
	7						7 MAIN SETTING WITH DIGIT, OPTIONAL HI OR LOW WITH ANALOG
	9						9 MAIN CONTROL WITH DIGIT, MULTI ALARM WITH ANALOG
	A						A MAIN CONTROL WITH DIGIT, SUB CONTROL FOR MULTI ALARM AND HEATER BROKEN ALARM WITH ANALOG
	H						H ANALOG SETTING WITH HEATER BROKEN ALARM
	K						K DIGITAL SETTING WITH HEATER BROKEN ALARM
OPERATING ACTION & SUB-CONTROL	0						0 NON-CONTROL
	1						1 ON-OFF ACTION WITHOUT SUB-CONTROL
	2						2 P + D ACTION WITHOUT SUB-CONTROL
	3						3 MAIN CONTROL : ON-OFF ACTION SUB-CONTROL : ON-OFF ACTION
	4						4 MAIN CONTROL : PID ADJUSTABLE OUTSIDE, SUB-CONTROL : ON-OFF ACTION
6						6 PID ADJUSTABLE OUTSIDE WITHOUT SUB-CONTROL	
8						8 MAIN CONTROL : P + D ACTION SUB-CONTROL : ON-OFF ACTION	
OUTPUT	0						0 NON-OUTPUT
	1						1 RELAY OUTPUT WITHOUT SUB-CONTROL
	2						2 SSR DRIVE DC 24V WITHOUT SUB-CONTROL
	3						3 4-20 mA (DC) WITHOUT SUB-CONTROL
	4						4 0-10 mV (DC) WITHOUT SUB-CONTROL
	5						5 MAIN CONTROL : RELAY, SUB-CONTROL RELAY
	6						6 MAIN CONTROL : 4~20MA SUB-CONTROL RELAY
	7						7 MAIN CONTROL : SSR DRIVE SUB-CONTROL RELAY
INPUT	R						PR 13%
	S						PR 10%
	K						K (CA)
	J						J (IC)
	P						P (PT100)

Remark: ★ Optional hi-low available









★★ Optional hi-low limit or heater broken alarm available

★★★ Optional hi-low limit or individual hi & low limit or dual setting

Remark: For  mark please choose the right code number according to ording information

**Temperature Controllers**

**Specifications**

		★ 	★ 	<b>APPEARANCE</b>
<b>96mm x 96mm (DIN 1/4)</b>				<b>SIZE</b>
Temperature Control				<b>MODEL</b>
<b>MC-1101</b>	<b>MC-1311</b>	<b>MC-170□</b>	<b>MC-171□</b>	
± 1% F.S.	± 1% F.S.	± 1% F.S.	± 1% F.S.	<b>ACCURACY</b>
PD. ON-OFF	PD. ON-OFF	PD. ON-OFF	PD. ON-OFF	<b>CONTROL ACTION</b>
IC(J), CA(K). PR(R)(S)	IC(J), CA(K). PR(R)(S) PT 100Ω	IC(J), CA(K). PR(R)(S), PT 100Ω	IC(J), CA(K) PR(R)(S), PT 100Ω	<b>INPUT</b>
RELAY SSR DRIVE	RELAY SSR DRIVE	RELAY SSR DRIVE	RELAY SSR DRIVE	<b>OUTPUT</b>
0~200°C TO 0~1600°C	± 50°C TO 0~1600°C	± 50°C TO 0~1600°C	± 50°C TO 0~1600°C	<b>TEMPERATURE RANGE</b>
110/220 VAC 50/60Hz	110/220 VAC 50/60Hz	110/220 VAC 50/60Hz	110/220 VAC 50/60Hz	<b>SUPPLY VOLTAGE</b>
90mm x 90mm	90mm x 90mm	90mm x 90mm	90mm x 90mm	<b>PANEL CUT-OUT</b>
★ 		★ 	★ 	<b>APPEARANCE</b>
<b>96mm x 96mm (DIN 1/4)</b>				<b>SIZE</b>
Temperature Control				<b>MODEL</b>
<b>MC-172□</b>	<b>MC-1730</b>	<b>MC-173□</b>	<b>MC-180□</b>	
± 1% F.S.	± 0.5% F.S.	± 0.5% F.S.	± 1% F.S.	<b>ACCURACY</b>
PD. ON-OFF		PD. ON-OFF	PD. ON-OFF	<b>CONTROL ACTION</b>
IC(J), CA(K) PR(R)(S), PT 100Ω	IC(J), CA(K). PR(R)(S), PT 100Ω	IC(J), CA(K). PR(R)(S), PT 100Ω	IC(J), CA(K). PT 100Ω	<b>INPUT</b>
RELAY SSR DRIVE	RELAY SSR DRIVE	RELAY SSR DRIVE	RELAY SSR DRIVE	<b>OUTPUT</b>
± 50°C TO 0~1600°C	± 50°C TO 0~1600°C	± 50°C TO 0~1600°C	± 99°C TO 0~1600°C	<b>TEMPERATURE RANGE</b>
110/220 VAC 50/60Hz	110/220 VAC 50/60Hz	85~265 VAC 50/60Hz	110/220 VAC 50/60Hz	<b>SUPPLY VOLTAGE</b>
90mm x 90mm	90mm x 90mm	90mm x 90mm	90mm x 90mm	<b>PANEL CUT-OUT</b>

M C | 1 1 / 1 3 / 1 7 / 1 8

**Temperature Controllers**









**Specifications**

APPEARANCE				
SIZE	<b>96mm x 96mm (DIN 1/4)</b>			<b>48mm x 96mm (DIN 1/8)</b>
MODEL	Temperature Control			
	<b>MC-181□</b>	<b>MC-183□</b>	<b>MC-373□</b>	<b>MC-4902</b>
ACCURACY	± 1% F.S.	± 0.5% F.S.	0~399°C± 0.5% 400~1600°C± 0.3% -99.9~199.9°C± 0.3%	± 1% F.S.
CONTROL ACTION	PD. ON-OFF	PD. ON-OFF	PD. PID ON-OFF	PD. ON-OFF
INPUT	IC(J), CA(K) PT 100Ω	IC(J), CA(K) PT 100Ω	IC(J), CA(K), PT 100Ω PR13%(R), PR10%(S)	IC(J), CA(K) PT 100Ω
OUTPUT	RELAY SSR DRIVE	RELAY SSR DRIVE	RELAY, SSR DRIVE SCR DC 4~20mA	RELAY SSR DRIVE
TEMPERATURE RANGE	± 99°C TO 0~1600°C	± 99°C TO 0~1600°C	± 99°C TO 0~1600°C	± 99°C TO 0~999°C
SUPPLY VOLTAGE	110/220 VAC 50/60Hz	85~265 VAC 50/60Hz	110/220 VAC 50/60Hz	110/220 VAC 50/60Hz
PANEL CUT-OUT	90mm x 90mm	90mm x 90mm	92mm x 92mm	45mm x 92mm
APPEARANCE				
SIZE	<b>48mm x 96mm (DIN 1/8)</b>		<b>48mm x 48mm (DIN 1/16)</b>	
MODEL	Temperature Control			
	<b>MC-491□</b>	<b>MC-493□</b>	<b>MC-4501</b>	<b>MC-4832</b>
ACCURACY	± 1% F.S.	± 0.5% F.S.	± 2% F.S.	± 1% F.S.
CONTROL ACTION	PD. ON-OFF	PD. ON-OFF	PD. ON-OFF	PD. ON-OFF
INPUT	IC(J), CA(K). PT 100Ω	IC(J), CA(K) PT 100Ω	IC(J), CA(K). PT 100Ω	IC(J), CA(K) PT 100Ω
OUTPUT	RELAY SSR DRIVE	RELAY SSR DRIVE	RELAY SSR DRIVE	RELAY SSR DRIVE
TEMPERATURE RANGE	± 99°C TO 0~999°C	± 99°C TO 0~999°C	± 50°C TO 0~1200°C	0~99.9°C TO 0~999°C
SUPPLY VOLTAGE	110/220 VAC 50/60Hz	110/220 VAC 50/60Hz	85-265 VAC 50/60Hz	85-265 VAC 50/60Hz
PANEL CUT-OUT	45mm x 92mm	45mm x 92mm	44.5mm x 44.5mm	44.5mm x 44.5mm

MC-18 / 37 / 45 / 48 / 49

**Temperature Controllers / Humidity Controller / Pressure Controller**

**Specifications**

	★ 	★ 		<b>APPEARANCE</b>
<b>72mm x 72mm</b>				<b>SIZE</b>
Temperature Control				<b>MODEL</b>
<b>MC-7101</b>	<b>MC-721</b> □	<b>MC-731</b> □	<b>MC-7402</b>	
± 1% F.S.	± 1% F.S.	± 1% F.S.	± 1% F.S.	<b>ACCURACY</b>
PD. ON-OFF	PD. ON-OFF	PD. ON-OFF	PD. ON-OFF	<b>CONTROL ACTION</b>
IC(J), CA(K). PT 100Ω	IC(J), CA(K) PT 100Ω	IC(J), CA(K) PT 100Ω	IC(J), CA(K). PT 100Ω	<b>INPUT</b>
RELAY SSR DRIVE	RELAY SSR DRIVE	RELAY SSR DRIVE	RELAY SSR DRIVE	<b>OUTPUT</b>
± 50°C TO 0~1200°C	± 50°C TO 0~1200°C	± 99°C TO 0~999°C	± 99°C TO 0~999°C	<b>TEMPERATURE RANGE</b>
110/220 VAC 50/60Hz	110/220 VAC 50/60Hz	110/220 VAC 50/60Hz	110/220 VAC 50/60Hz	<b>SUPPLY VOLTAGE</b>
67mm x 67mm	67mm x 67mm	67mm x 67mm	67mm x 67mm	<b>PANEL CUT-OUT</b>
★ ★ 	★ ★ 			<b>APPEARANCE</b>
<b>72mm x 72mm</b>		<b>96mm x 96mm (DIN 1/4)</b>		<b>SIZE</b>
Temperature Control		Humidity Control	Pressure Control	<b>MODEL</b>
<b>MC-753</b> □	<b>MC-763</b> □	<b>MC-2131</b>	<b>MC-2232</b>	
± 0.5 F.S.	± 0.5% F.S.	± 5% RH (50~90%RH)	± 0.5%	<b>ACCURACY</b>
PD. ON-OFF	PD. ON-OFF	ON-OFF	ON-OFF	<b>CONTROL ACTION</b>
IC(J), CA(K). PT 100Ω	IC(J), CA(K). PT 100Ω	0~1V	4~20mA	<b>INPUT</b>
RELAY SSR DRIVE	RELAY SSR DRIVE	RELAY	RELAY	<b>OUTPUT</b>
± 50°C TO 0~800°C	± 99°C TO 0~999°C	0~100%RH	0~1.99, 4.99, 9.99, 19.9, 49.9, 99.9, 199, 499kg/cm <sup>2</sup>	<b>TEMPERATURE RANGE</b>
110/220 VAC 50/60Hz	110/220 VAC 50/60Hz	AC110/220V, 50/60Hz	110/220 VAC 50/60Hz	<b>SUPPLY VOLTAGE</b>
67mm x 67mm	67mm x 67mm	90mm x 90mm	90mm x 90mm	<b>PANEL CUT-OUT</b>

M C I 7 1 / 7 2 / 7 3 / 7 4 / 7 5 / 7 6 / M C I 2 1 3 1 / M C I 2 2 3 2



**AUM-3000RH**

**AUM-1000NA**

**AUM-1000N**

**AUM-2KND**



**Miniature Temperature Controllers**

Model No.	AUM								
	140N	1000N	1000NA	2000ND	2000ND2	2000NM	3000RH	5000PA	500PA
Applications	General use				General only			General use	
Range (unit: °C)	-40.0~100.0	-40.0~100.0	-40.0~100.0	-40.0~100.0	-40.0~50.0	-40.0~100.0	0~100%	-20~500	0~500
Sensor	1 x NTC 5.0 kohm				2 x NTC 5.0 kohm	1 x 4~20mA	1 x PT100 ohm		1 x NTC 5.0 kohm
Output	Null	1 Relay SPDT 250V 10A	2 Relay SPDT 250V 10A	2 Relay SPDT 250V 10A	2 Relay SPDT 250V 10A	2 Relay SPDT 250V 10A	1 Relay SPDT 250V 10A	2 Relay SPDT 250V 10A	2 Relay SPDT 250V 10A
Power Supply	110 or 220 VAC only	12~15 VAC/DC, 10%, 50/60HZ							
Functions	Temperature reading only	Heater / Cooler	Heater / Cooler + Load / Alarm	Cooler + Defroster by time	Cooler + Defroster by temperature	Cooler + Mixer by time	Humidifier / Dehumidifier	Heater / Cooler + Load / Alarm	Heater (Two Steps Control)
Remarks	With Sensor	With Sensor and Transformer					With Transformer		
Drilling Template	(B70 X H29mm) +0.5mm								
Parameter Selection	Front panel push buttons								
Data Hold	Non-volatile memory (EEPROM)								
Environmental Temperature	0~60°C, RH 80% less								
Storage Temperature	-20~60°C, RH 80% less								
Precision	Better than 1.0°C of full scale								
Regulations	ON/OFF with one or two outputs								
Connector	Screw clamps for cable of 2.0 mm dia.								
Consumption	Max. 150 mA								
Weight	330 grams of full set								
Diagram (Unit: mm)									





**Industrial Thermostats**

TS					MTS					Model No.															
030S	050S	080S	120S	320S	030S	050S	080S	120S	320S	Range (unit: °C)															
-30~30	0~50	0~80	0~120	50~320	-30~30	0~50	0~80	0~120	50~320	Differential															
4 ± 2				10 ± 2	4 ± 2				10 ± 2	S.P.D.T.	Contactor Terminal														
16(2)A, 250/380V										Contactor Capacity															
1000mm										Electrical Rating															
SUS										Length															
Commercial freezers & refrigerators										Material															
Ice maker, water cooler, vending machine										Capillary															
Electric & gas oven										Application															
Electric heaters																									
Agricultural / factorial equipment																									
										Diagram (Unit: mm)															
Sensor Length (A)					Sensor Length (B)																				
TS					MTS																				
TS 030S	Ø5.8 x 126mm				MTS 030S	Ø8 x 77mm																			
TS 050S	Ø5.8 x 126mm				MTS 050S	Ø8 x 77mm																			
TS 080S	Ø5.8 x 112mm				MTS 080S	Ø6 x 88mm																			
TS 120S	Ø5 x 105mm				MTS 120S	Ø6 x 58mm																			
TS 320S	Ø3 x 166mm				MTS 320S	Ø3 x 80mm																			
<table border="0"> <tr> <td><b>TS</b></td> <td>—</td> <td><b>030S</b></td> <td>—</td> <td><b>R</b></td> <td>—</td> <td><b>C</b></td> </tr> <tr> <td><b>A</b></td> <td></td> <td><b>B</b></td> <td></td> <td><b>C</b></td> <td></td> <td><b>D</b></td> </tr> </table> <p><b>A. Model No:</b>                      TS                      MTS</p> <p><b>B. Temp. Range:</b>                      030S = -30~30°C                      050S = 0~50°C                      080S = 0~80°C                      120S = 0~120°C                      320S = 50~320°C</p> <p><b>C. Knob Type:</b>                      R: Plastic Bezel                      B: Plastic / Stainless Steel Bezel</p> <p><b>D. Screw:</b>                      None                      C = With screw</p>											<b>TS</b>	—	<b>030S</b>	—	<b>R</b>	—	<b>C</b>	<b>A</b>		<b>B</b>		<b>C</b>		<b>D</b>	Ordering Information
<b>TS</b>	—	<b>030S</b>	—	<b>R</b>	—	<b>C</b>																			
<b>A</b>		<b>B</b>		<b>C</b>		<b>D</b>																			

TS / MTS

SCR

Heat Sink: Aluminum



MP



(42)



(82)



**Miniature S. C. R. Power Regulator**

Model No.	MP														
	2415D	2430D	2450D	2465D	3815D	3830D	3850D	—	—	—	—	—	—	—	
	—	—	—	—	—	—	—	2415DV	2430DV	2450DV	2465DV	3815DV	3830DV	3850DV	
Dimensions (Unit: mm)															
Load Current Rating (A)	15A	30A	50A	65A	15A	30A	50A	15A	30A	50A	65A	15A	30A	50A	
Load Voltage (V)	100~260V				—				100~260V				—		
To Take Pressure	1200		800		1200		1200		800		1200		—		
Ambient Temp.	Operating: 0~50°C, Storage: -10~70°C														
RH	0~90%														
Auxiliary Power	—														
Min Load Current	—														
Off State Leakage Current	—														
Power Consumption	—														
Frequency Range	50Hz / 60Hz														
Control Type (Input)	0~20mA	—				—				—				—	
	4~20mA	•				—				—				—	
	0~5V	—				—				—				—	
	1~5V	—				—				—				•	
	0~10V	—				—				—				—	
2~10V	—				—				—				—		
Strength of Press-resisted	2500 VAC / 1 Min between power & external cover														
	1000 VAC / 1 Min between power & input signal														
Isolation Resistance	Over 20 MΩ (power & external cover)														
	Over 20 MΩ (input signal & external cover)														
Alarm	—														
Notation	Single phase 1 pole														
Net Weight (g)	Approx. 125														
Features	<ol style="list-style-type: none"> <li>1. Single phase 1 pole, zero cross control.</li> <li>2. Miniature size as "SSR" most suitable for small ampere and miniature equipment use to less the cost but increase the value of equipment.</li> <li>3. Input signal can be ordered with 4~20mA / 1~5VDC / VR100K.</li> <li>4. CE Approval.</li> </ol>														

M  
P

SCR

Heat Sink: Aluminum



MZTS



(DM459-67) (DM458-72) (DM285-67) (DM284-105)



**Miniature S. C. R. Power Regulator**

MZTS						Model No.
1015	1030	1050	2015	2030	2050	
						Dimensions (Unit: mm)
						Load Current Rating (A)
100~480V						Load Voltage (V)
Operating: 0~50°C, Storage: -10~70°C						To Take Pressure Ambient Temp.
0~90%						RH
0.6A						Auxiliary Power
—						Min Load Current
—						Off State Leakage Current
50Hz / 60Hz						Power Consumption
—						Frequency Range
—						Control Type (Input)
•						
—						
—						
—						
2500 VAC / 1 Min between power & external cover						Strength of Press-resisted
1000 VAC / 1 Min between power & input signal						
Over 20 MΩ (power & external cover)						
Over 20 MΩ (input signal & external cover)						Isolation Resistance
—						Alarm
3 Phase 1 Pole			3 Phase 2 Poles			Notation
Approx. 225						Net Weight (g)
<p>1. 3 phase 2 poles zero cross control, miniature size, most suitable for small ampere and miniature equipment use.</p> <p>2. 4~20mA can drive thyristor directly, auxiliary power supply is not necessary to make easy wire connection and maintenance.</p> <p>3. Input 4~20mA signal available only.</p> <p>4. Free voltage from 100~480VAC.</p> <p>5. CE Approval</p>						Features

M  
Z  
T  
S



MP1

MAXTHERMO®

S. C. R. Unit

(1 Fuse use)

Model No.	MP1									
	0304L	0504L	0704L	1004L	1204L	1604	2004	2504	3004	
Dimensions (Unit: mm)										
Load Current Rating (A)	30A	50A	70A	100A	120A	160A	200A	250A	300A	
Load Voltage (V)	100~500V									
To Take Pressure	—									
Ambient Temp.	Operating: 0~50°C, Storage: -10~70°C									
RH	0~90%									
Auxiliary Power	—									
Min Load Current	0.6A									
Off State Leakage Current	0.25 mA under (R.C Filter)									
Power Consumption	0.15 W (Max)									
Frequency Range	50 Hz /60 Hz									
Control Type (Input)	0~20mA									
	4~20mA									
	0~5V									
	1~5V									
	2~10V									
Strength of Press-resisted	2500 VAC / 1 Min between power & external cover									
	1000 VAC / 1 Min between power & input signal									
Isolation Resistance	Over 20 MΩ (power & external cover)									
	Over 20 MΩ (input signal & external cover)									
Alarm	—									
Notation	Single phase 2 poles									
Net Weight (g) (Include heat sink)	Approx. 1400			Approx. 1500		Approx. 3300		Approx. 6775		
Features	1. Single phase 2 poles with a fuse only. 2. Zero cross control. 3. Fuse included. 4. High accuracy with analog control. 5. Free voltage from 100~500VAC.					6. 4~20mA can drive thruster directly, auxiliary power supply is not necessary to make easy wire connection and maintenance. 7. Input signal 4~20mA available only 8. CE Approval				

MP1



TMPS

MAXTHERMO®

**S. C. R. Unit**

**(1 Fuse use)**

TMPS									Model No.	
0302L	0502L	0702L	1002L	1202L	1602	2002	2502	3002		
0304L	0504L	0704L	1004L	1204L	1604	2004	2504	3004		
									Dimensions (Unit: mm)	
									Load Current Rating (A)	
180~260V									02	Load Voltage (V)
330~500V									04	
—									To Take Pressure	
Operating: 0~50°C, Storage: -10~70°C									Ambient Temp.	
0~90%									RH	
—									Auxiliary Power	
0.6A									Min Load Current	
8mA under (R.C Filter)									Off State Leakage Current	
3.2 W (Max)									Power Consumption	
50 Hz / 60 Hz									Frequency Range	
•									0~20mA	Control Type (Input)
•									4~20mA	
•									0~5V	
•									1~5V	
•									0~10V	
•									2~10V	
Input Resistance DCA (250Ω) / DCV (4.7KΩ or 10KΩ)									Input Resistance	
AC 2000V (1 min input & output to ground)									Isolation Voltage	
—									Alarm	
Single phase 2 poles									Notation	
Approx. 1400			Approx. 1500		Approx. 3300		Approx. 6775		Net Weight (g) (Include heat sink)	
1. Single phase 2 poles with a fuse only. 2. Phase angle control 3. Fuse included. 4. Good accuracy with digit control. 5. With self-diagnosis function (phase fail and fuse open) 6. Auxiliary power supply is necessary for control. 7. Input signal can be ordered with 0~20mA / 4~20mA / 0~5V / 1~5V / 0~10V DC.									Features	

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MAPS

MAXTHERMO®

S. C. R. Unit

(1 Fuse use)

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Model No.	MAPS								
	0304	0504	0804	1004	1204	1504	1604	2254	3004
Dimensions (Unit: mm)									
Load Current Rating (A)	30A	50A	80A	100A	120A	150A	160A	225A	300A
Load Voltage (V)	100~500V								
To Take Pressure	—								
Ambient Temp.	Operating: 0~50°C, Storage: -10~70°C								
RH	0~90%								
Auxiliary Power	—								
Min Load Current	0.6A								
Off State Leakage Current	—								
Power Consumption	—								
Frequency Range	—								
Control Type (Input)	0~20mA								
	4~20mA								
	0~5V								
	1~5V								
	0~10V								
Strength of Press-resisted	2500 VAC / 1 Min between power & external cover								
	1000 VAC / 1 Min between power & input signal								
Isolation Resistance	Over 20 MΩ (power & external cover)								
	Over 20 MΩ (input signal & external cover)								
Alarm	—								
Notation	Single phase 1 pole								
Net Weight (g) (Include heat sink)	Approx. 300	Approx. 500	Approx. 950	Approx. 1200	Approx. 1300	Approx. 1500	Approx. 1800	Approx. 2000	
Features	1. Single phase 1 pole with alarm function. 2. Small size and simple structure for easy use. 3. 4~20mA can drive thyristor directly, auxiliary power supply is not necessary to make easy wire connection and maintenance. 4. Input signal 4~20mA available only. 5. Free voltage from 100~500VAC. 6. CE Approval.								



**MPT**



**S. C. R. Unit**

**(3 Fuse use)**

MPT											Model No.	
0202	0302	0502	0702	0802	1002	1202	1602	2002	2502	3002		Dimensions (Unit: mm)
0204	0304	0504	0704	0804	1004	1204	1604	2004	2504	3004		
20A	30A	50A	70A	80A	100A	120A	160A	200A	250A	300A	Load Current Rating (A)	
150~260V											02	Load Voltage (V)
240~500V											04	
Operating: 0~50°C, Storage: -10~70°C											To Take Pressure Ambient Temp.	
0~90%											RH	
AC 220V ± 10%											Auxiliary Power	
0.6A											Min Load Current	
15mA (Max.)											Off State Leakage Current	
5W (Max)											Power Consumption	
50 Hz / 60 Hz (option)											Frequency Range	
—											0~20mA	Control Type (Input)
•											4~20mA	
•											0~5V	
•											1~5V	
•											0~10V	
—											2~10V	
DCA (250Ω) , DCV (10 kΩ)											Input Resistance	
AC 2000V (1 Min Input & Output to Ground)											Isolation Voltage	
2.0A											Alarm	
3 phase 3 fuses											Notation	
Approx. 1900	Approx. 4600	Approx. 6600	Approx. 9400	Approx. 16500							Net Weight (g) (Include heat sink)	
<ol style="list-style-type: none"> <li>1. Heavy duty type, phase angle control, 3 phase with 3 fuses.</li> <li>2. High accuracy with analog control, and multi alarm output.</li> <li>3. Auxiliary power supply is necessary for control.</li> <li>4. Input signal can be ordered with 0~20mA / 4~20mA / 0~5V / 1~5V / 0~10V DC.</li> <li>5. Fuse is separated in all models. A fan is attached when SCR is 50A up.</li> </ol>											Features	

MPT



MP3S



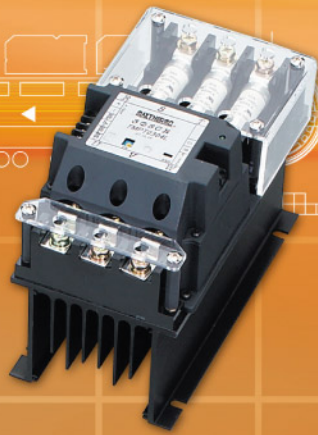
S. C. R. Unit

(3 Fuse use)

Model No.	MP3S										
	0304L	0504L	0704L	1004L	1204L	1504	1604	2004	2254	2504	3004
Dimensions (Unit: mm)											
Load Current Rating (A)	30A	50A	70A	100A	120A	150A	160A	200A	225A	250A	300A
Load Voltage (V)	100~500V										
To Take Pressure	—										
Ambient Temp.	Operating: 0~50°C, Storage: -10~70°C										
RH	0~90%										
Auxiliary Power	—										
Min Load Current	0.6A										
Off State Leakage Current	—										
Power Consumption	—										
Frequency Range	50 Hz / 60 Hz										
Control Type (Input)	0~20mA	—									
	4~20mA	•									
	0~5V	—									
	1~5V	—									
	0~10V	—									
2~10V	—										
Input Resistance	—										
Isolation Voltage	AC 2000V (1 min input & output to ground)										
Alarm	—										
Notation	3 phase 3 fuses										
Net Weight (g) (Include heat sink)	Approx. 1800	Approx. 2200	Approx. 3475	Approx. 5400	Approx. 5500	Approx. 6000	Approx. 6500	Approx. 7200	Approx. 7200	Approx. 9000	Approx. 9000
Features	1. Phase angle control, 3 phase with 3 fuses. 2. Fuse included. 3. High accuracy with analog control, and multi alarm output. 4. 4~20mA can drive thyristor directly, Auxiliary power supply is not necessary to make easy wire connection and maintenance. 5. Input signal 4~20mA available only. 6. CE Approval										

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TMPT



S. C. R. Unit

(3 Fuse use)

TMPT								Model No.
—	—	—	—	—	—	—	—	
0304L	0504L	0804L	1004L	1204L	1604	2004	2504	3004
30A	50A	80A	100A	120A	160A	200A	250A	300A
								Load Current Rating (A)
100~500V								Load Voltage (V)
Operating: 0~50°C, Storage: -10~70°C								To Take Pressure Ambient Temp.
0~90%								RH
88~264V (50Hz / 60Hz)								Auxiliary Power
0.6A								Min Load Current
8mA (R.C Filter)								Off State Leakage Current
3.2W (Max.)								Power Consumption
50Hz / 60Hz								Frequency Range
•								Control Type (Input)
•								
•								
•								
•								
DCA (250Ω) / DCA (4.7Ω or 10kΩ)								Input Resistance
AC 2000V (1 min input & output to ground)								Isolation Voltage
—								Alarm
3 phase 3 fuses								Notation
Approx. 1800	Approx. 2200	Approx. 3475	Approx. 5400	Approx. 9400	Approx. 16500	Net Weight (g) (Include heat sink)		
<ol style="list-style-type: none"> <li>Phase angle control, 3 phase with 3 fuses.</li> <li>Fuse included.</li> <li>Good accuracy with digit control.</li> <li>With self-diagnosis function (phase fail and fuse open)</li> <li>Auxiliary power supply is necessary for control.</li> <li>Input signal can be ordered with 0~20mA / 4~20mA / 0~5V / 1~5V / 0~10V DC.</li> </ol>								Features

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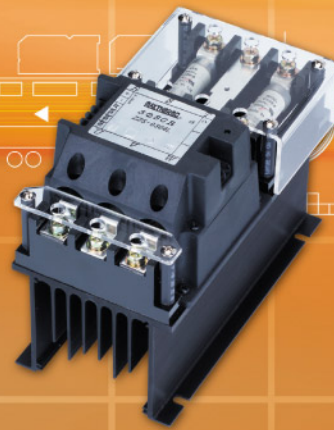
MAXTHERMO®

S. C. R. Unit

(2 Fuse use)

Model No.	TMOT									
	0304L	0504L	0704L	1004L	1204L	1604	2004	2504	3004	
Dimensions (Unit: mm)										
Load Current Rating (A)	30A	50A	70A	100A	120A	160A	200A	250A	300A	
Load Voltage (V)	100~500V									
To Take Pressure	—									
Ambient Temp.	Operating: 0~50°C, Storage: -10~70°C									
RH	0~90%									
Auxiliary Power	88~264V (50Hz / 60Hz)									
Min Load Current	0.6A									
Off State Leakage Current	8mA under (R.C Filter)									
Power Consumption	3.2 W (Max)									
Frequency Range	50 Hz / 60 Hz									
Control Type (Input)	0~20mA									
	4~20mA									
	0~5V									
	1~5V									
	0~10V									
Input Resistance	DCA (250Ω) , DCV (4.7Ω or 10 kΩ)									
Isolation Voltage	AC 2000V (1 min input & output to ground)									
Alarm	None / With (220 VAC / 0.1A open normally)									
Notation	3 phase 2 fuses									
Net Weight (g) (Include heat sink)	Approx. 1800	Approx. 2200	Approx. 3475	Approx. 5400	Approx. 7000	Approx. 9400				
Features	1. Zero cross control, 3 phase with 2 fuses. 2. Fuse included. 3. With self-diagnosis function (phase fail and fuse open) 4. Good accuracy with digit control. 5. Input signal can be ordered with 0~20mA / 4~20mA / 0~5V / 1~5V / 0~10V DC. 6. Auxiliary power supply is necessary for control.									

TMOT



MZ2S



S. C. R. Unit

(2 Fuse use)

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MZ2S									Model No.
—	—	—	—	—	—	—	—	—	
0304L	0504L	0804L	1004L	1204L	1604	2004	2504	3004	
									Dimensions (Unit: mm)
30A	50A	70A	100A	120A	160A	200A	250A	300A	Load Current Rating (A)
—									Load Voltage (V)
100~500V									To Take Pressure
—									Ambient Temp.
Operating: 0~50°C, Storage: -10~70°C									RH
0~90%									Auxiliary Power
—									Min Load Current
0.6A									Off State Leakage Current
—									Power Consumption
50Hz / 60Hz									Frequency Range
—									Control Type (Input)
—									
•									
—									
—									
—									
—									Input Resistance
AC 2000V (1 min input & output to ground)									Isolation Voltage
—									Alarm
3 phase 2 fuses									Notation
Approx. 1800	Approx. 2200	Approx. 3475	Approx. 5400	Approx. 7000	Approx. 7000	Approx. 9400	Approx. 9400	Approx. 9400	Net Weight (g) (Include heat sink)
1. Zero cross control, 3 phase with 2 fuses. 2. Fuse included. 3. High accuracy with analog control. 4. 4~20mA can drive thyristor directly, auxiliary power supply is not necessary to make easy wire connection and maintenance. 5. Input signal 4~20mA available only. 6. CE Approval									Features



MS



S. S. C. R. Unit

Model No.	MS										
	MS-1	1050L	1070L	1080L	1100L	1120L	—	—	—	—	—
	—	—	—	—	—	—	1050H	1070H	1080H	1100H	1120H
	—	—	—	—	—	—	—	—	—	—	—
Dimensions (Unit: mm)	MS-1						—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—
Load Current Rating (A)											
		50A	70A	80A	100A	120A	50A	70A	80A	100A	120A
Load Voltage (V)	L	100~260 VAC					—				
	H	—					100~480 VAC				
DC Working Current		10 mA (Min.)									
Min Load Current		0.6A									
Off State Leakage Current		8mA under (R.C Filter)									
Frequency Range		50Hz / 60Hz									
Control Type (Input)	L	7~32 VDC									
	H	11~32 VDC									
Isolation Voltage	MS-1	AC 2000V (1 min input to ground)									
	—	—									
Alarm		—									
Notation	MS-1	Single Phase									
	—	—									
Net Weight (g) (Include heat sink)	MS-1	Approx. 1500	Approx. 2100	Approx. 1500	Approx. 2100	—	Approx. 1500	Approx. 2100	Approx. 1500	Approx. 2100	—
	—	—									
Features		1. High speed ON/OFF. 2. DC control isolated with AC power, easy wiring and no need of auxiliary power. 3. CE Approval									

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**MS**

**MAXTHERMO®**

**S. S. C. R. Unit**

MS									Model No.			
2030L	2050L	2070L	2100L	2120L	2160L	2200L	2250L	2300L		MS-2		
2030H	2050H	2070H	2100H	2120H	2160H	2200H	2250H	2300H		MS-3		
3030L	3050L	3070L	3100L	3120L	3160L	3200L	3250L	3300L		MS-2		
3030H	3050H	3070H	3100H	3120H	3160H	3200H	3250H	3300H	MS-3			
								MS-2		Dimensions (Unit: mm)		
								MS-3				
									Load Current Rating (A)			
100~260V									L	Load Voltage (V)		
100~480V									H			
10mA (Min.)									DC Working Current			
0.6A									Min Load Current			
8mA Under (R.C Filter)									Off State Leakage Current			
50 Hz /60 Hz									Frequency Range			
7~32VDC									L	Control Type (Input)		
11~32 VDC									H			
AC 2000V (1 min input & output to ground)									MS-2	Isolation Voltage		
AC 2000V (1 min input & output to ground)									MS-3			
—									Alarm			
Three phase 2 poles									MS-2	Notation		
Three phase 3 poles									MS-3			
Approx. 1500			Approx. 2400		Approx. 4800		Approx. 7000		Approx. 9400		MS-2	Net Weight (g) (Include heat sink)
Approx. 1500		Approx. 1900		Approx. 4800		Approx. 9400		Approx. 14800		MS-3		
<p>1. High speed ON/OFF.                  2. DC control isolated with AC power, easy wiring and no need of auxiliary power.                  3. CE Approval</p>										Features		

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With Acrylic Cover Optional



Solid State Relays (S. S. R.)

Model No.	Zero Voltage Switching	SS / SD / SP															
		—	SS2402DZ	SS2403DZ	SS2410DZ	SS2415DZ	SS2420DZ	SS2425DZ	SS2440DZ	SS2460DZ	SS2475DZ	SS4810DZ	SS4815DZ	SS4820DZ	SS4825DZ	SS4840DZ	SS4860DZ
—	—	—	SS2410A	SS2415A	SS2420A	SS2425A	SS2440A	—	—	SS2410DR	SS2415DR	SS2420DR	SS2425DR	SS2440DR	—	—	
—	—	—	SD0610	—	—	SD0625	—	—	—	—	—	—	—	—	—	—	
—	—	—	SP2410	SP2415	SP2420	SP2420	SP2440	—	—	—	—	—	—	—	—	—	
Dimensions (Unit: mm)																	
Load Current Rating (A)																	
Output Circuit (Voltage Range)	Zero Voltage Switching	70-240 VAC															
	Random Switching	70-240 VAC															
	Phase Control	3-60 VDC															
Input Circuit (Current)	Zero Voltage Switching	5-15 mA (DC)															
	Random Switching	5-15 mA (DC)															
	Phase Control	2-5 mA (AC)															
Input Circuit (Control Voltage)	Zero Voltage Switching	4-32 VDC															
	Random Switching	4-32 VDC															
	Phase Control	70-240 VAC															
Input Circuit (Input Resistor)	Phase Control	100kΩ Visitor															
Size	Zero Voltage Switching	1	1	2	2	2	2	2	3	3	—	—	2	2	2	2	2
	Random Switching	—	—	2	2	2	2	2	—	—	—	—	2	2	—	—	—
	Phase Control	—	—	2	2	2	2	2	—	—	—	—	2	2	—	—	—
Features		<ol style="list-style-type: none"> <li>All solid state, optically coupled for 2500 VAC isolation between input and output circuit.</li> <li>Load current of 10, 25, 40 amperes.</li> <li>Able to be driven by 1C such as TTL &amp; CMOS.</li> <li>Internally mounted snubbed circuit protection for huge current (dv/dt) application.</li> <li>A LED can indicate the operating of devices.</li> <li>Long service life and high reliability.</li> </ol>															

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Miniature S. S. R.

Heat Sink: Aluminum



**MSR**



**(MSR-1)**



**(MSR-2)**



**(MSR-3)**



**(MSR-4)**

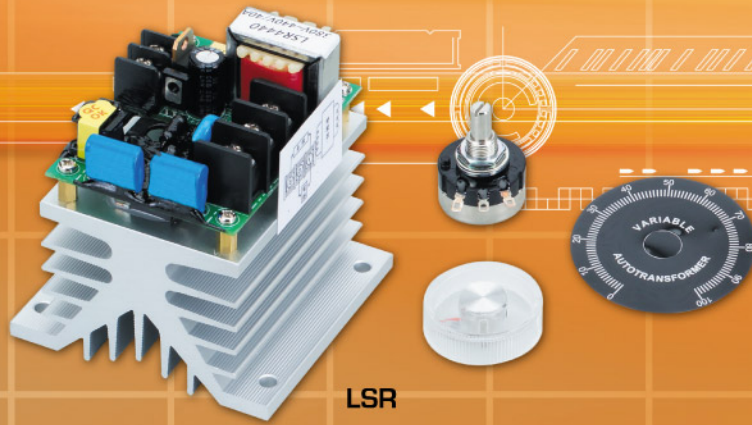


**(MSR-5)**



**S. S. R. (Miniature S. S. R. DC / AC)**

MSR					Model No.	
2215D	2225D	2240D	3825D	3840D		
		(MSR-1)	(MSR-2)	(MSR-3)	(MSR-4)	(MSR-5)
15A	25A	40A	25A	40A	Load Current Rating (A)	
50~300 VAC			50~480 VAC		Load Voltage (V)	
600			800		VDRM	
200/167	250/208	400/335	200/167	200/167	ITSM (A) (50/60Hz)	
Operating: 0~50°C, Storage: -10~70°C					Ambient Temp.	
0~90%					Working Humidity	
—					Input Resistance	
2500 VAC / 1 min					Isolation Voltage	
Single phase 1 pole					Notation	
MSR-3: Rail type / MSR-1, MSR-2, MSR-4, MSR-5: Screw					Heat Sink	
<b>Single Phase</b>						
<b>Three Phase</b>						
<p>1. Non spark and non noise.                  2. High speed ON/OFF.                  3. DC control isolated with AC power, easy wiring and no need of auxiliary power.                  4. It can connect varistor to avoid surge.                  5. With protection cover to avoid shock ,dust and humidity.                  6. It can be individual use or be assembled to use in 3 Phase 2 Pole or 3 Phase 3 Pole.                  7. Patent design of one line wiring which minimize the size to save space and wiring time.</p>						
Wiring Diagram						
Features						



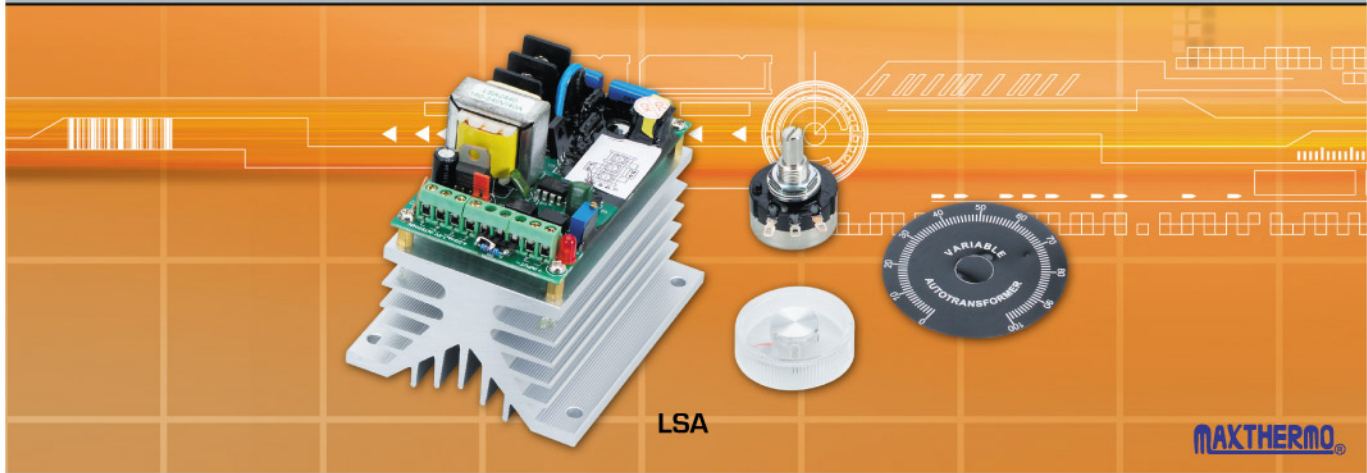
MAXTHERMO®

Linear Solid State Relays (S. S. R.)

Model No.	LSR					
	1225	1240	2425	2440	2625	2640
	3825	3840	4425	4440	4825	4840
Dimensions (Unit: mm)						
Load Current Rating (A)	25A	40A	25A	40A	25A	40A
Load Voltage (V)	80~120 Vrms 320~380 Vrms		180~240 Vrms 380~440 Vrms		200~260 Vrms 420~480 Vrms	
I <sup>2</sup> t (t=8.3ms) A <sup>2</sup> S	250A / 400A <sup>2</sup> s	400A / 664A <sup>2</sup> s	250A / 400A <sup>2</sup> s	400A / 664A <sup>2</sup> s	250A / 400A <sup>2</sup> s	400A / 664A <sup>2</sup> s
Applicable Load	Resistance Load					
Minimum Load Current	100 mA					
Output Power Range	0~97 % (Linear)					
Input to Output Isolation Voltage	2500 Vrms					
Operating Temperature	-20°C to +55°C					
Net Weight (g) (Include heat sink)	490 g					
Input Specification	Control Voltage Range (VDC)	—				
	Power Adjust Resistor	10KΩ ( B type)				
Notation						
Features	<ol style="list-style-type: none"> <li>1. Internal control circuits, isolated with power output circuit, can connect to external controller safely.</li> <li>2. Simpler and smaller than traditional SCR voltage regulator.</li> <li>3. Large heat sink , fanless cooling</li> </ol>					

LSR





**Linear Solid State Relays (S. S. R.)**

LSA						Model No.																																																				
1225	1240	2425	2440	2625	2640		Dimensions (Unit: mm)																																																			
3825	3840	4425	4440	4825	4840																																																					
						Load Current Rating (A)																																																				
25A	40A	25A	40A	25A	40A																																																					
80~120 Vrms		180~240 Vrms		200~260 Vrms		Load Voltage (V)																																																				
320~380 Vrms		380~440 Vrms		420~480 Vrms																																																						
250A / 400A <sup>2</sup> s	400A / 664A <sup>2</sup> s	250A / 400A <sup>2</sup> s	400A / 664A <sup>2</sup> s	250A / 400A <sup>2</sup> s	400A / 664A <sup>2</sup> s	I <sup>2</sup> t (t=8.3ms) A <sup>2</sup> S																																																				
250A / 400A <sup>2</sup> s	400A / 664A <sup>2</sup> s	250A / 400A <sup>2</sup> s	400A / 664A <sup>2</sup> s	250A / 400A <sup>2</sup> s	400A / 664A <sup>2</sup> s																																																					
Resistance Load						Applicable Load																																																				
100 mA						Minimum Load Current																																																				
0~97 % (Linear)						Output Power Range																																																				
2500 Vrms						Input to Output Isolation Voltage																																																				
-20°C to +55°C						Operating Temperature																																																				
590 g						Net Weight (g) (Include heat sink)																																																				
4~20 mA (PID), 1~5 VDC (PID), 10~24 VDC (ON-OFF), Internal Control						Control Voltage Range (VDC) Power Adjust Resistor	Input Specification																																																			
10KΩ ( B type)																																																										
						Notation																																																				
<table border="1"> <thead> <tr> <th rowspan="2">Input</th> <th colspan="4">Connector</th> <th colspan="4">Jumper</th> </tr> <tr> <th>1-2</th> <th>6-7</th> <th>7-8</th> <th>8-9</th> <th>1-2</th> <th>2-3</th> <th>3-4</th> <th>4-5</th> </tr> </thead> <tbody> <tr> <td>4-20mA(PID)</td> <td>Input</td> <td>ON</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>ON</td> </tr> <tr> <td>1-5 VDC (PID)</td> <td>Input</td> <td>-</td> <td>ON</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>ON</td> </tr> <tr> <td>10-24 VDC (ON-OFF)</td> <td>Input</td> <td>-</td> <td>-</td> <td>-</td> <td>ON</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>Internal Control</td> <td>N.C.</td> <td>-</td> <td>-</td> <td>ON</td> <td>-</td> <td>-</td> <td>-</td> <td>ON</td> </tr> </tbody> </table> <p> <input checked="" type="checkbox"/> ON Input select by connector  <input type="checkbox"/> ON Input select by jumper                      Output terminal 1-2 (AC Source)                      Output terminal 1-3 (Load)                 </p>							Input	Connector				Jumper				1-2	6-7	7-8	8-9	1-2	2-3	3-4	4-5	4-20mA(PID)	Input	ON	-	-	-	-	-	ON	1-5 VDC (PID)	Input	-	ON	-	-	-	-	ON	10-24 VDC (ON-OFF)	Input	-	-	-	ON	-	-	-	Internal Control	N.C.	-	-	ON	-	-	-
Input	Connector				Jumper																																																					
	1-2	6-7	7-8	8-9	1-2	2-3	3-4	4-5																																																		
4-20mA(PID)	Input	ON	-	-	-	-	-	ON																																																		
1-5 VDC (PID)	Input	-	ON	-	-	-	-	ON																																																		
10-24 VDC (ON-OFF)	Input	-	-	-	ON	-	-	-																																																		
Internal Control	N.C.	-	-	ON	-	-	-	ON																																																		
<ol style="list-style-type: none"> <li>Linear phase control, can accept 1~5V, 4~20mA, potentiometer input.</li> <li>Internal control circuits, isolated with power output circuit, can connect to external controller.</li> <li>Simpler and smaller than traditional SCR voltage regulator.</li> <li>Big heat sink , fanless cooling</li> </ol>						Features																																																				

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Multifunction Digital Timer

<b>Model No.</b>	<b>TH5C</b>	
<b>Rated Supply Voltage</b>	AC (V): 100VAC~240VAC or DC (V): 12VDC/24VDC	
<b>Operating Voltage Range</b>	85~110% of rated operating voltage	
<b>Rated frequency</b>	50/60Hz	
<b>Contact rating</b>	250VAC 5A (resistive load)	
<b>Reset Time</b>	0.1 sec max	
<b>Power Consumption</b>	Approx. 2VA	
<b>Endurance</b>	Mechanical : 5,000,000 times	
	Electrical : 100,000 times (250VAC/5A , resistive load)	
<b>Ambient Temperature</b>	-10°C~+50°C	
<b>Ambient Humidity</b>	45~85% RH	
<b>Weight</b>	115g	
<b>Dimensions (mm)</b>	48x48x79mm	
<b>Panel Cut-Out</b>	45x45mm	
<b>Wiring Diagram</b>	<b>TH5C-8D</b>	<b>TH5C-8S</b>
	<b>TH5C-11D</b>	<b>TH5C-11S</b>
<b>Features</b>	Eleven operating modes: settings of on-delay, off-delay, one-shot, accumulation and flicker	
	Wide time ranges from 0.001second to 9999	
	Display of elapsed time (up count) / remaining time (down count)	
	Battery-less memory retention	
	Tamper-proof (K/P): providing four levels of protection (TH5C-11S only)	
	All function parameters are field selectable on the front panel keys	
	All input signals are opto-isolated from AC power input	
Providing 12VDC/50mA insulated power source for external DC sensor(TH5C-11S only)		

TH5C



With alarm



Without alarm



Digital Panel Meter

<b>MD-2638</b>						<b>Model No.</b>	
85~264VAC , 50/60Hz						<b>Power</b>	
96(W) x 48(H) x 97(D) mm						<b>Dimensions</b>	
90.5(W) x 44.5(H) mm						<b>Panel Cut-out</b>	
-10°C ~+50°C						<b>Working Temperature</b>	
50~+85%RH						<b>Working Humidity</b>	
about 310 g						<b>Weight</b>	
0.5 sec.						<b>Sample Time</b>	
≤(0.5%±1 Digit)						<b>Accuracy</b>	
9999						<b>Max. Reading</b>	
Maximum Alarm 4 sets to be Ordered						<b>Remark</b>	
Transmission is Available							
0~1300°C	N	0~2000°C	Wu3-Re25	-1999~9999	AN1	<b>Input &amp; Temperature Ranges Selection</b>	
0~1700°C	R	0~1200°C	F1		0~5V or 0~10V		
0~1600°C	S	0~2000°C	F2	-1999~9999	AN2		
0~1800°C	B	-200~800°C	HPT100		1~5V or 2~10V		
0~1300°C	K	-200.0~200.0°C	LPT100	-1999~9999	0~20mV		
0~600°C	E	-50.0~150.0°C	Cu50	-1999~9999	0~30mV		
0~300°C	T	-1999~9999	0~10mA	-1999~9999	0~50mV		
0~800°C	J	-1999~9999	4~20mA	-1999~9999	0~400Ω		
<b>A. Power Supply</b> 							<b>Wiring Diagram</b>
<b>B. Input</b> 							
<b>C. Alarm</b> 							
<b>D. Transmission</b> 							
<b>MT- 2638 00 4 1 00</b> A B C						<b>Ordering Information</b>	
<b>A. Model No :</b> MD-2638 with size 96 x 48 mm (DIN 1/8)			<b>C. Transmission :</b> 0-None 1-4~20mA (Adjustable) 2-0~20mA (Adjustable) A-0~5V (Adjustable)				
<b>B. Alarm :</b> 0-None 4-Four sets alarm			B-0~10V (Adjustable) C-1~5V (Adjustable) D-2~10V (Adjustable)				
Available for temperature, humidity, pressure, flow, ampere, voltage indicator.						<b>Features</b>	
Multi input R, S, B, K, E, T, J, W, N, Pt100, Cu50 and linear analogue 4-20mA, 0-5V, 0-20mV, 0-50mV etc. can be selected by user.							
With maximum 4 alarms which can be set as low/low , low , high , high/high alarm.							
0.8" LED display makes clear reading.							
With 3 decimal for analogue input which is most suitable to use in precision equipment.							
Over range and below range will be displayed.							

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MAXTHERMO®

Digital Hygrometer and Thermometer

HT-800 / S-506

Model No.		HT-800	S-506
<b>Operating Functions</b>		<p>Signal output of humidity Signal output of temperature Power switch Data hold key Combined temperature / humidity sensor Input socket of probe LCD display °C &amp; °F key Probe extension cord Battery cover Sensor probe 15Ø x 150mm</p>	<p>MAX. read display Sensor input connector (Miniature TC plug) Hold status display Value display 3 1/2 digital LCD °C &amp; °F key Power ON key Power OFF key 1. Data call key HOLD -&gt; MAX-&gt; MIN-&gt; measure 2. Auto/Manual power off Select key •HOLD + ON : Auto power off function</p>
<b>Measurement Range</b>	<b>Humidity</b>	5 to 98.0%RH	—
	<b>Temperature</b>	-15.0 to +60.0°C, 5.0 to +150.0°F	-180--- +1372°C, -292---+1999°F
<b>Accuracy (Tame=25°C)</b>	<b>Humidity</b>	±2.5%RH	—
	<b>Temperature</b>	±0.2°C ± 0.4°F	±0.1% of reading +0.3°C, -100 to +1000°C(-150 to +1832°F), Above elsewhere ±0.2%+1°C(1.8°F).
<b>Resolution</b>	<b>Humidity</b>	0.1%RH	—
	<b>Temperature</b>	0.1°C, 0.1°F	0.1°From -199.9 to +199.9°, 1°Elsewhere
<b>Sensors</b>	<b>Humidity</b>	High precision MACROMOLECULE HUMIDITY SENSOR	Thermocouple type K(CA), J.T.E. optional.
	<b>Temperature</b>	PT100Ω platinum thermo-resistance	—
<b>Signal Output</b>	<b>Humidity</b>	DC 0~1V, 10mV/%RH, impedance 600Ω	—
	<b>Temperature</b>	DC 0~1V, 10mV/°C, 10mV/°F, impedance 600Ω	—
<b>Display</b>		TWIN digital LCD display for temperature and humidity reading in the mean-time without switching	Digital LCD display, with multi-function signal
<b>Operating/Ambient, Range</b>		—	-5 to +50°C, 23 to 122°F, below 90%RH.
<b>Input Protection</b>		—	—
<b>Temp. Coefficient</b>		—	±(0.015% of reading +0.03°C)/°C(1.8°F)
<b>Over Range Alarm</b>		Automatic, when humidity value out of the measurement range	—
<b>Measuring Rate</b>		2.5 per second	Approx. 1.5 times per second.
<b>Data Memory</b>		Last value memory by "HOLD" switch	Value HOLD Function
<b>Power Supply</b>		One 9V 006P or IEC 6F22 battery	One 9V 006P Battery. (IEC 6F 22, NEDA 1604).
<b>Battery Life</b>		Approx. 120 hours.(continuous operation)	Approx.200 hours. (Alkaline battery).
<b>Low Power Alarm</b>		Automatic. "🔋" lights up on alarm.	Open sensor (display show "----"), Out of range
<b>Storage ambient range (Meter)</b>		-20 ~ +60°C(-5 ~ 150°F) Below 85%RH	—
<b>Dimensions</b>		Meter: 15X7.8X2.7cm(5.9X3.1X1.1inch) Probe: 18ØX150mm, cable length 1.0 meter	150x78x27mm(5.9x3.1x1.1inch).
<b>Weight</b>		280gms,(9.8 OZS) including probe	145gms.(5.1 OZS) approx.
<b>Accessories</b>		1. Combined humidity / temperature probe. 2. Leather carrying case 3. 9V battery 4. Signal output connector	1. 9V battery 2. Input Connector: Miniature TC plug
<b>Features</b>		1. Over Range Alarm 2. Data Memory 3. Low Power Alarm 4. Signal output	1. °C °F Selectable 2. Value HOLD function 3. MAX /MIN. Value record 4. Automatic resolution range selectable 5. Auto Power-off selectable. (Approx.7minutes of no key operation).



MD-3003

305P



Digital Hygrometer and Thermometer


MD-3003		305P		Model No.	
				<p><b>Operating Functions</b></p>	
<p>—</p> <p>-50°C~1300°C/1°C, -58°F~1300°F/1°F, -50°C~199.9°C/0.1°C, -58°F~199.9°F/0.1°F</p>		<p>—</p> <p>-50°C~1300°C, -58°F~2000°F±0.3%+1°C or 2°F</p>			
<p>—</p> <p>-50°C~1000°C/(±0.3%rdg+1°C), 1000°C~1300°C/ (±0.5%rdg+1°C), -58°C~1999°F/(±0.3%rdg+2°F)</p>		<p>—</p>		Temperature	Accuracy (Tame=25°C)
<p>—</p> <p>0.1°C or 0.1°F, 1°C or 1°F</p>		<p>—</p> <p>1/0.1°C, 1/0.1°F</p>		Humidity	Resolution
<p>—</p>		<p>—</p>		Humidity	Sensors
<p>—</p>		<p>Sensor: K type Thermocouple</p>		Temperature	
<p>—</p>		<p>—</p>		Humidity	Signal Output
<p>—</p>		<p>—</p>		Temperature	
<p>—</p>		<p>1999 Counts digital display</p>		Display	
<p>0°C~50°C/(32°F~122°F), Below 80%R.H.(NO Condensation)</p>		<p>—</p>		Operating/Ambient, Range	
<p>60V DC or 24Vrms AC Maximum</p>		<p>—</p>		Input Protection	
<p>—</p>		<p>—</p>		Temp. Coefficient	
<p>—</p>		<p>—</p>		Over Range Alarm	
<p>—</p>		<p>—</p>		Measuring Rate	
<p>Data HOLD Function</p>		<p>—</p>		Data Memory	
<p>—</p>		<p>—</p>		Power Supply	
<p>Approx. 200 hrs</p>		<p>Approx. 150 hrs</p>		Battery Life	
<p>—</p>		<p>—</p>		Low Power Alarm	
<p>-10°C~60°C/(14°F~140°F), Below 70%R.H.(NO Condensation)</p>		<p>—</p>		Storage ambient range (Meter)	
<p>148mm(L)X71mm(W)X36mm(H)/(5.83"X2.8"X1.42")</p>		<p>184(H) x 62(W) x 35(D) mm</p>		Dimensions	
<p>Approx. 210g(including Battery )</p>		<p>Approx. 350g</p>		Weight	
<p>1. Battery 9V,NEDA 1604, IEC 6F22,JIS006P.....1 2. Instruction Manual.....1 3. Test Probe.....1 4. Rubber Holster.....1</p>		<p>—</p>		Accessories	
<p>1. Data Hold Function 2. Resolution: 0.1°C or 0.1°F, 1°C or 1°F 3. Wide Measuring Range:-50°C~1300°C/(-58°F~1999°F) 4. Low Battery Indication 5. Celsius(°C)or Fahrenheit(°F) For Selection 6. "OL" Shows On LCD Display When Overload or No Signal Input</p>		<p>1. Probe detector insert probe before taking measurements. 2. The red LED turns on top indicate that a damaged probe or bad connection between probe and temperature socket is detector. 3. Front panel offset adjustment 4. Safety: IEC1010-1, CE-EMC Approved.</p>		Features	

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
**Infrared Hygrometer and Thermometer**

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Model No.	610LC	611	MD-516
Display	3-1/2digit liquid crystal display (LCD) with a maximum reading of 1999		Built Laser Sighting / Backlight LCD Display
Zero	Automatic		—
Low battery indication	The "  " is displayed when the battery voltage drops below the operating level.		
Storage temperature	-20°C to 60°C, 0 to 80% R.H. with battery removed from meter		-10°C to 60°C (14°F to 140°F) below 70% RH
Dimensions	170mm(H)x44mm(W)x40mm(D)		172mm(H)x118mm(W)x46mm(D)
Weight	Approx. 160g		Approx. 220g
Power Supply	Including battery (1.5V x 4pcs AAA size)		ONE 9V cell (ANSI/NEDA-1604A, IEC-6LR61)
Spectral Response	6~14um		6~14um
Field of View	100mm Ø at 1000mm		10:1 Optics ratio with a 1" min target
Emissive	Pre-set 0.95	0.10 to 1.00 by step of 0.01	0.17~1.0
Auto Power Off	Approx. 15 sec		Approx. 15 sec
Sighting	1-beam laser marker < 1mw (class 2)		Laser maker 1mw
Data memory capacity	—		50 Sets (Direct reading from LCD display)
Battery life	Approx. 100 hrs	Approx. 50 hrs	Approx. 50 hrs
Operating/Storage Condition	0°C to 50°C at <70% relative humidity		0°C ~ 50°C (32°F ~ 122°F) Below 80%RH
Temperature	Sensor	Thermopile	
	Range	-20°C to 260°C	-20°C to 550°C
	Resolution	1°C	
	Accuracy	±3% of reading or ±3°C (whichever is greater) under environment temp. at 23°C±5°C, < 75%RH	
	With analog output	1mv/°C	—
Relative Humidity	Sensor	—	
	Range	—	
	Resolution	—	
	Accuracy	—	
Accessories	—		Instruction manual, battery
Measurement Rate	2.5 times per second, nominal.		—
Full Range Accuracy	—		—
Response Time	1 sec		0.5 sec
Update Frequency	—		—
Wave Length	—		—
Features	CE approval		CE approval
	Auto DATA HOLD function after releasing MEASURE Button		Memory/Read Logging Capacity(50 Set)
	Auto power off function		Adjustable/Visible Alarm
	Use thermopile detection sensor(6-14µm).		0.1°C & 0.2°F Resolution
	Fixed emissivity(ε)0.95 for most substances		Range -20°C ~ 500°C
	Attached carrying case		Adjustable Emissive
Laser output < 1mW(670nm typ.)		MAX/MIN Reading	



**Infrared Hygrometer and Thermometer**

MD-526	TN400L	621C	Model No.
Back-light LCD display	Large LCD screen	3-1/2digit liquid crystal display (LCD) with a maximum reading of 1999	<b>Display</b>
—	—	Automatic	<b>Zero</b>
The "🔋" is displayed when the battery voltage drops below the operating level.	 Battery Exhausted: Measurements are not possible	The "🔋" is displayed when the battery voltage drops below the operating level.	<b>Low battery indication</b>
-10°C to 60°C (14°F to 140°F) below 70% RH	-20 to 65°C (-4~149°F)	-20°C to 60°C, 0 to 80% R.H. with battery removed from meter	<b>Storage temperature</b>
170mm(H)x52mm(W)x38mm(D)	175mm(H)x39mm(W)x72mm(D)	170mm(H)x44mm(W)x40mm(D)	<b>Dimensions</b>
Approx. 180g	Approx. 179g	Approx. 160g	<b>Weight</b>
Single 9V battery 006P 9V	AAAx2(Alkaline)	Including battery(1.5V x 4pcs AAA size)	<b>Power Supply</b>
6~14um	—	—	<b>Spectral Response</b>
8:1 Optics ratio with a 1" min target	D:S ratio 9:1	—	<b>Field of View</b>
0.17~1.0	0.95 fixed	—	<b>Emissive</b>
Approx. 10 sec (Infrared), 30min. (type K)	Approx. 15 sec	—	<b>Auto Power Off</b>
Laser maker<1mw	—	—	<b>Sighting</b>
20 set	—	—	<b>Data memory capacity</b>
Approx. 150 hrs	Approx. 18 hrs	Approx. 200 hrs	<b>Battery life</b>
0°C ~ 50°C (32°F ~ 122°F) Below 80%RH	0°C ~ 50°C (32°F ~ 122°F)	0°C to 50°C at <75% relative humidity	<b>Operating/Storage Condition</b>
Thermopile & type K	—	PT385/1000ΩRTD temperature sensor	<b>Sensor</b>
-20°C ~ 500°C (-4°F ~ 932°F)	-50°C ~ 400°C (-58°F ~ 750°F)	-20°C to 100°C	<b>Range</b>
0.1°C / 1°C, 0.1°F / 1°F	0.1°C / 0.1°F	0.1°C	<b>Resolution</b>
±2% Reading or 2°C	±1.0°C(±1.8°F)	±0.5°C for 0°C to 50°C.±1.0°C for -20°C to 0°C, and 50°C to 100°C	<b>Accuracy</b>
—	—	—	<b>With analog output</b>
—	—	Capacitive humidity sensor	<b>Sensor</b>
—	—	0% to 100% RH	<b>Range</b>
—	—	0.1% RH	<b>Resolution</b>
—	—	±2.5%RH (10% to 90%RH) ±5%RH (<10%, > 90%RH)	<b>Accuracy</b>
Instruction manual, battery & carry case.	—	—	<b>Accessories</b>
2.5Times per second	—	2.5 times per second, nominal	<b>Measurement Rate</b>
±2% reading or ± 2°C or 4°F	±2% of reading or 2°C (whichever is greater)	—	<b>Full Range Accuracy</b>
Once per second	1 sec	60 sec typical	<b>Response Time</b>
—	1.4 Hz	—	<b>Update Frequency</b>
—	5um~14um	—	<b>Wave Length</b>
CE Approval	IR Thermometer	Display Back-Light feature	<b>Features</b>
°C / °F Selectable.	D: S Ratio 9: 1	Use highly accurate RTD temperature sensor	
Audible and visible alarm.	Lowest cost	With MAX/DATA HOLD function	
Laser targeting.	°C / °F Selectable.	Use quick response capacitive humidity sensor.	
Data memory and read capacity 20 sets.	CE Approval	Attached carrying case	
Auto-power off	—	CE Approval	
Thermocouple input K(-50°C ~ 1370°C).	—	—	

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Anemometer Thermometer

Model No.		AV-9201	AVM-01	AVM-03
Operating Functions				
Measurement Range	Air Velocity	0.0 to 45.0 m/s (meter per second)		0.3-45.0 M/S , 0.6-88.0 KNOTS , 60-8800 ft/min , 1-140.0 Km/hr
	Temperature	-50 to +110°C or -58 to +230°F		—   0-60°C ± 0.8 , 32-140°F ± 1.5
Accuracy	Air Velocity	±2% for whole range		+/- 3% or 0.1
	Temperature	+/- 0.5°C in the range of 0 to +50°C or +/- 0.9°F in the range of +32 to +122°F; otherwise +/- 1°C or 1.8°F		—
Resolution	Air Velocity	0.1' for whole range		0.1 (60-8800 ft/min : 10)
	Temperature	0.1' for whole range		—
Added function	Air Velocity	Interchange Units Available: kilometers per hour; mile per hour; feet per minute; nautical miles per hour		—
	Temperature	—		—
Operating Temperature		—		10°C-50°C
Operating Pressure		—		500mB-2bar
Display		—		Large 3 1/2 digit LCD
Power Source		3 X 1.5 VOLTS "AAA" Size or equivalent		1pc of 9V Battery
Dimension		—		168mm x 90mm x 31.3mm
Net Weight (g)		—		500g
Accessory		—		Carrying Case, 9V Battery, Instruction Manual
Features		<ol style="list-style-type: none"> <li>1. Instant Display of the Air Velocity and Temperature</li> <li>2. Broad Measurement Range, Reliable Accuracy.</li> <li>3. Maximum, Minimum and Average Calculation</li> <li>5. Easy Airflow Volume Calculation 10 Memory Recording, Recalling and Clearing Function</li> <li>6. EL Backlight</li> <li>7. Low Battery Indication</li> <li>8. One Hour Auto Shut Off Function</li> </ol>		<ol style="list-style-type: none"> <li>1. Sensitive for low/high air velocity</li> <li>2. Ergonomic Design</li> <li>3. 0.3~45m/s range</li> </ol>

AVI9201 / AVM101 / AVM103





Data Logger Thermometer

YC-7		YC-8		Model No.	
				Operating Functions	
-100°C~1300°C (-148°F~2372°F)	-100°C~1000°C (-148°F~1832°F)	-200°C~1372°C (-328°F~2501°F)	-210°C~1200°C (-364°F~2192°F)		Thermocouple Range
-50°C~800°C (-58°F~1472°F)	-100°C~400°C (-148°F~752°F)	-210°C~1000°C (-364°F~1832°F)	-250°C~400°C (-418°F~752°F)		
0°C~1700°C (32°F~3092°F)	-100°C~1300°C (-148°F~2372°F)	—	—		
±(0.1% rdg+0.7°C)-100°C~1300°C	±(0.1% rdg+1.4°F)-148°F~2372°F	±(0.1% reading+0.7°C)	±(0.1% reading+1.4°F)	Accuracy	
±(0.1% rdg+2°C)0°C~1700°C	±(0.1% rdg+4°F)32°F~3092°F	—	—		
±(0.1% rdg+1.5°C)-100°C~1300°C	±(0.1% rdg+3°F)-148°F~2372°F	—	—		
0°C~50°C(32°F~122°F),0~80%RH	0°C~50°C,0~80%RH	0°C~50°C,0~80%RH	0°C~50°C,0~80%RH		
-20°C~60°C(-4°F~140°F),0~80%RH	-10°C~60°C,0~80%RH	-10°C~60°C,0~80%RH	-10°C~60°C,0~80%RH	Operation temperature and humidity	
0.1°C / 0.1°F / 1°C / 1°F	1°C / 1°F (Below 1000°C)	0.1°C / 0.1°F / 1°C / 1°F	1°C / 1°F (Below 1000°C)	Storage temperature and humidity	
CE-Mark approval. Conform to ITS-90				Resolution	
R03(AB) SIZE AAA/1.5V/UM-4 x 4PCS				Approval	
24V AC/DC Maximum				Power requirement	
164 x 76 x 32 mm				Input protection at thermocouple input	
Approx.270g				Dimension (L x W x H)	
125 x 82 x 43 mm				Net Weight (g)	
Approx.350g				Features	
<ol style="list-style-type: none"> <li>1. Tetrad display. Back light.</li> <li>2. Auto Power OFF/On</li> <li>3. Low Battery indication.</li> <li>4. 10000 Records data logger.</li> <li>5. Call-fit to quick read memory data. (50 page / sec.)</li> <li>6. With a perpetual calendar function.</li> <li>7. Battery life: 1000 / hr</li> <li>8. Free Monitor Software</li> </ol>		<ol style="list-style-type: none"> <li>1. Dual display.(LCD 18.2mm)</li> <li>2. MEM—to save 10 data.</li> <li>3. Auto Power OFF.</li> <li>4. Low Battery indication.</li> <li>5. RS-232 interface with windows software.</li> <li>6. Free Monitor Software</li> </ol>			

MA-102H  
(Hanging Type)



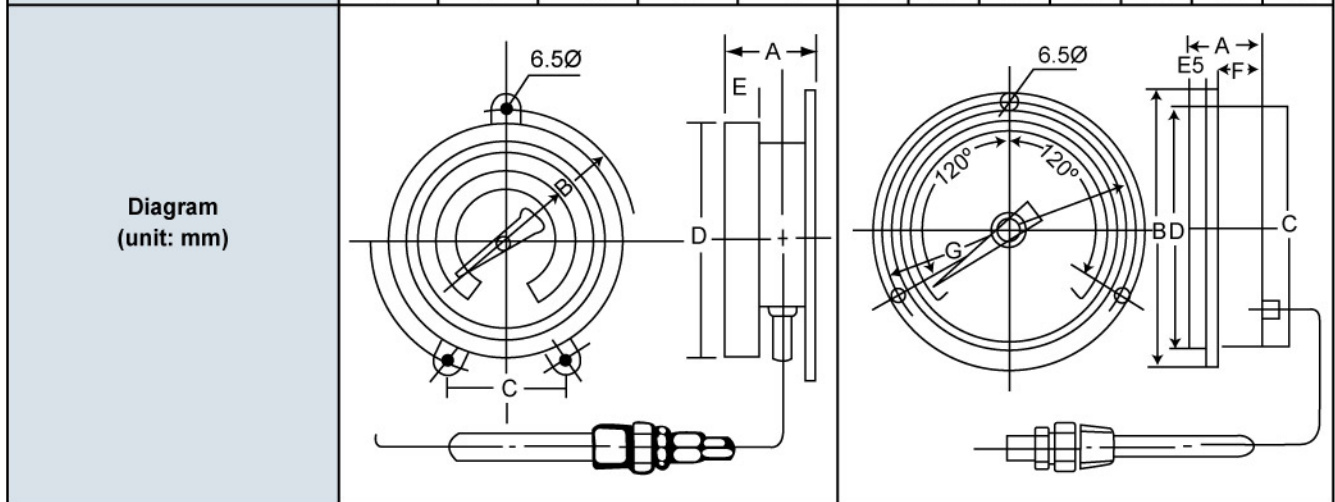
MA-102M  
(Mounting Type)



Capillary Thermometer

MA-102H / MA-102M

Model No.	MA-102H					MA-102M						
Temperature Range	± 50°C/°F to 0-650°C/°F											
Accuracy	Within ± 1% of full scale											
Material of Case	Stainless Steel, SUS 304											
Length of Spiral	Standard 3M, longest 10M											
Length of Sensor	Standard 12mm Dia.X150mm or be ordered											
Size (unit: mm)	D	A	B	C	E	D	A	B	C	E	F	G
	4"	50	122	120°	15	4"	53	136	103	17	25	124
	6"	60	185	50°	18	6"	60	204	155	15	34	185



**Remark**

1. With a 1/2"PT Screw Nut for 4" Diameter
2. With a 3/4"PT Screw Nut for 6" Diameter
3. Electric Contactor 0.3A / 110V or 0.15A / 250V can be produced by ordered
4. Mercury Filled

**Ordering Information**

MA-102H — A1 — 6 — 500 — 12Ø x 6" L — 3M — 1/2"PT

**A. Model No :**  
 MA-102H (Hanging type)  
 MA-102M (Mounting type)

**B. Electric Contactor (0.15A / 250V or 0.3A / 110V) :**  
 0-Non  
 A1-With 1 contactor for high alarm  
 A2-With 1 contactor for low alarm  
 B1-With 2 contactor for high-high alarm  
 B2-With 2 contactor for high-low alarm  
 B3-With 2 contactor for low-low alarm

**C. Dial Diameter :**  
 3=3" dial    5=5" dial  
 4=4" dial    6=6" dial

**D. Temperature Range :**  
 Minimum -50°C / °F  
 Maximum 650°C / °F

**E. Sensor Tube Diameter and Length :**  
 Standard is 12Ø x 6" L, other are available

**F. Capillary Length :**  
 Standard is 3M, other are available

**G. Thread Connection :**  
 Standard: 3" & 4" dial is 1/2"PT  
 5" & 6" dial is 3/4"PT



**MB-200**  
**(BS Type)**



**MB-201**  
**(BL Type)**



**MB-202**  
**(Adjustable Angle)**



**Bimetal Thermometer**

MB-200				MB-201				MB-202					Model No.	
± 50°C/°F to 0-600°C/°F													Temperature Range	
Within ± 1.0% of full scale													Accuracy	
Stainless Steel (SUS 304) Cases and Stems													Material of Case	
2" to 3" dial with 1/4" PT, 4" to 6" dial with 1/2" PT													Thread Connection	
6.35 to 8mmØ													Outside Diameter of Stem	
2 1/2" ~ 40" by orders													Length of stem	
6", longer to be ordered													Standard length of Stem	
Resin or glass													Transparent Plate	
Aluminum, White background with black figures & marks													Dial Scale Plate	
Transformer, Petrochemicals, Driers, Foods, Air conditioning equip, boilers & other general industrial uses.													Application	
a	b	b	d	a	b	c	d	a	b	c	d	e	Diameter	Size (unit: mm)
—	—	—	—	50	57.5	15	1/4"PT	—	—	—	—	—	2"	
70	85	48	1/4"PT	72	83	16	1/4"PT	72	83	16	1/4"PT	85	3"	
100	119	50	1/2"PT	100	115.5	20	1/2"PT	100	115.5	20	1/2"PT	89	4"	
110	127	50	1/2"PT	110	127	18	1/2"PT	110	127	18	1/2"PT	86.5	5"	
138.5	158.5	46.5	1/2"PT	138.5	158.5	17.5	1/2"PT	138.5	158.5	17.5	1/2"PT	85	6"	
													Diagram (unit: mm)	
<p>1. Standard is dual scale (Both °F and °C) Single scale is ordered.</p> <p>2. With external adjuster to be ordered</p> <p>3. Anti-parallax sealed glass windows, white dials with black numerals</p>													Remark	
<p><b>MB-201</b> — <b>2</b> — <b>6"</b> — <b>200</b> — <b>1/4"PT</b></p> <p><b>A</b>                      <b>B</b>                      <b>C</b>                      <b>D</b>                      <b>E</b></p> <p><b>A. Model No :</b>                      MB-200 (BS Type)                      MB-201 (BL Type)                      MB-202 (Adjustable Angle)</p> <p><b>B. Dial Diameter :</b>                      2=2"    5=5"                      3=3"    6=6"                      4=4"</p> <p><b>C. Stem Length :</b>                      Standard : 6"                      Others to be ordered</p> <p><b>D. Temperature Range :</b>                      Minimum -50°C / °F                      Maximum 600°C / °F</p> <p><b>E. Thread Connection :</b>                      2" &amp; 3" dial is 1/4"PT                      4", 5" &amp; 6" dial is 1/2"PT                      Others to be ordered</p>													Ordering Information	

M B I 2 0 0 / M B I 2 0 1 / M B I 2 0 2

**Plastic Case**



**MB-500GL**

**Plastic Case**



**MB-500GS**

**Oxidized Aluminum Alloy Case**



**MB-400GS**

**Plated Brass Case**



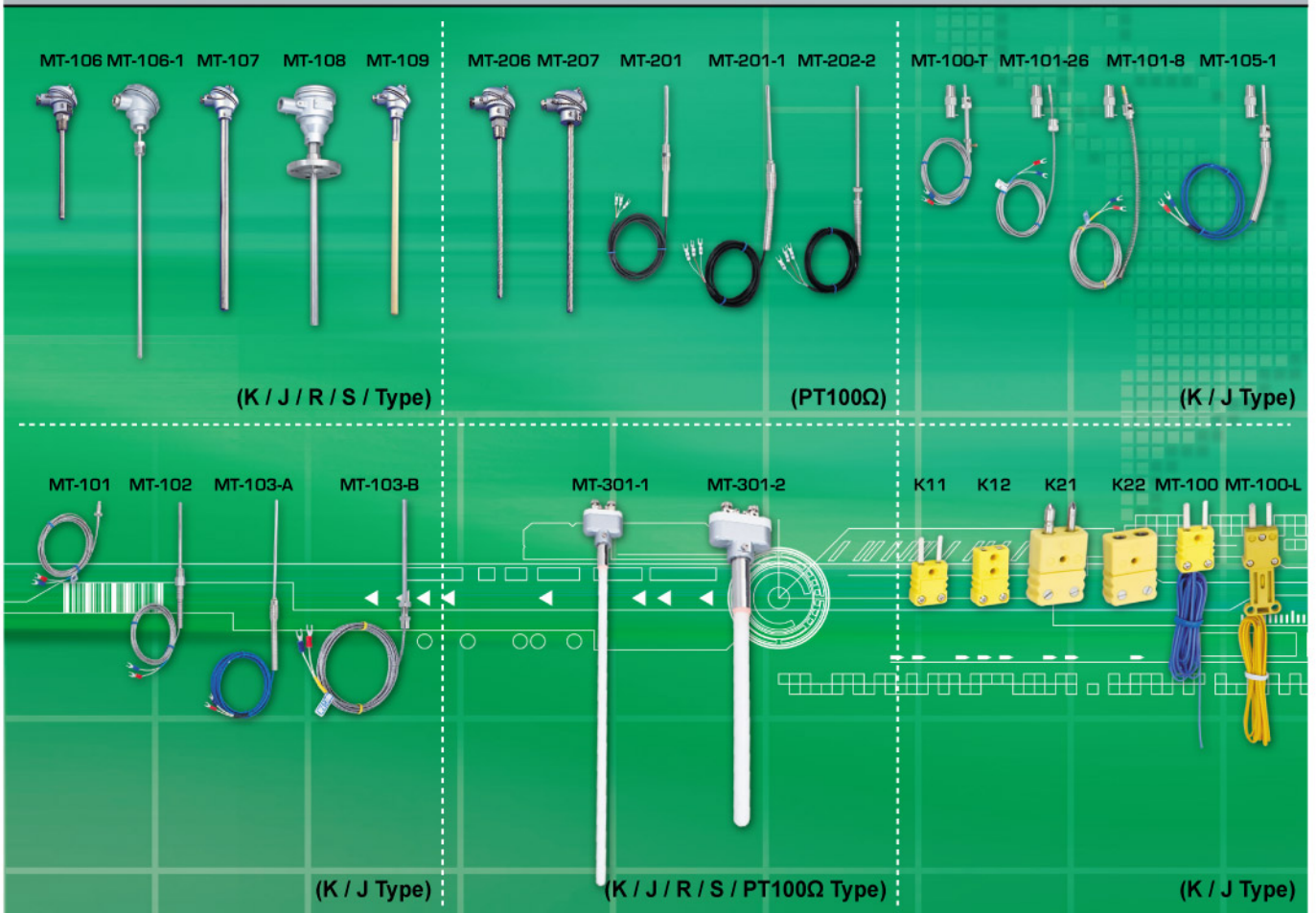
**MB-300GS**



**Industrial Thermometers**

Model No.	MB-500GL	MB-500GS	MB-400GS	MB-300GS
Scale Length	4 1/2", 6", 6 1/2", 8"		4 1/2" (110mm), 6" (150mm), 8" (200mm)	4 1/2", 6", 6 1/2", 8"
Case	Plastic or Plated Brass Case		Oxidized Aluminum Alloy	Plastic or Plated Brass Case
Lens	Glass			
Connection	Brass, 1/2" NPN / BSP straight or angle form.			
Tube	Glass tube, magnifying red or blue liquid.			
Options	Special ranges, connections, lens and stem length.			
Diagram (Unit: mm)				
Features	<p>For installations where space is a factor, the glass tube industrial thermometer is recommended.</p> <p>This instrument is compactly designed, ruggedly constructed and of excellent readability it meets most specifications for the general construction industry.</p> <p>The low cost and quality design make it ideal for a variety of commercial applications.</p>			

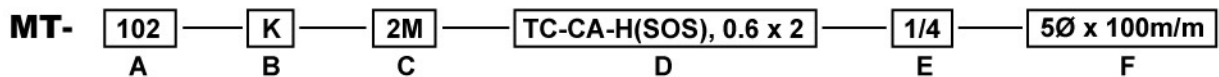
MB500GL / MB500GS / MB400GS / MB300GS



## Industrial Thermometers

### Ordering Information

#### With wire type



- A. Model :** MT-100, 100-T, 101, 101-8, 101-26, 102.....(refer to page 35 & 36)
- B. Signal type :** K, J, PT100 & others
- C. Extension wire length :** 1M, 2M, 3M, 4M, 5M, 6M & others
- D. Extension wire type :** Refer to compensating lead wire specification
- E. Thread connection type :** 1/4, 5/16, 3/8, 1/2, 3/4 & others
- F. Tube diameter & length :** 5Ø, 6Ø

#### With T/C head type



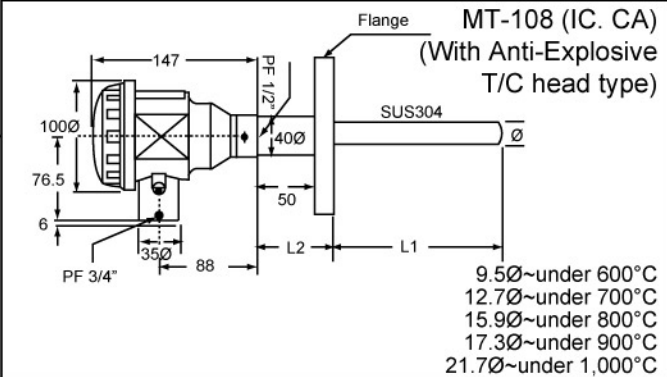
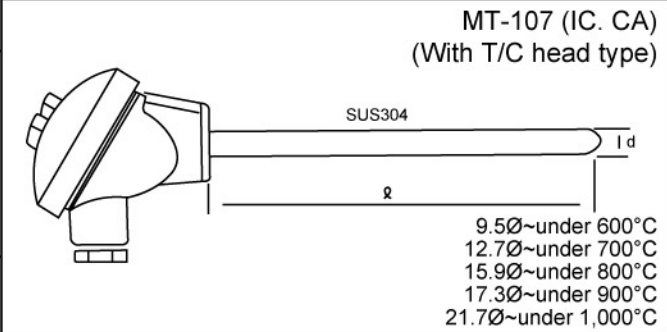
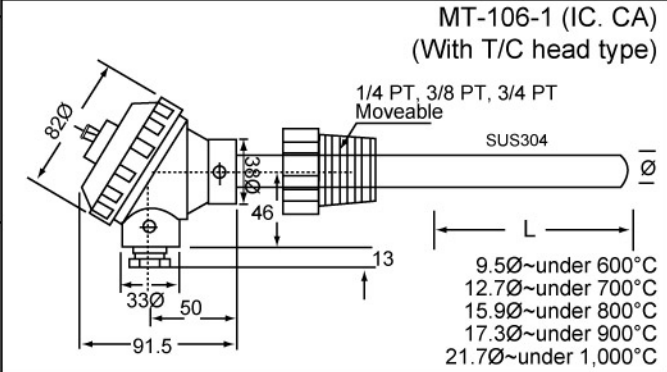
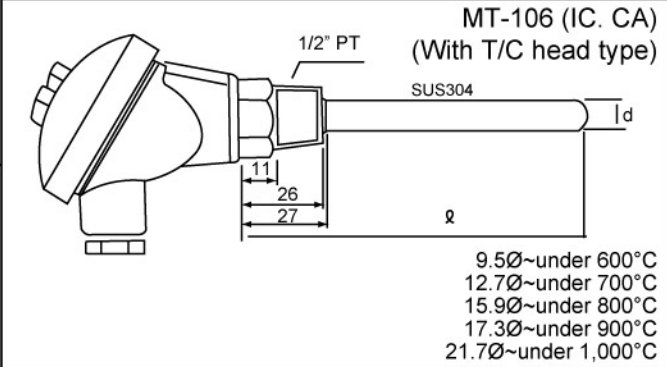
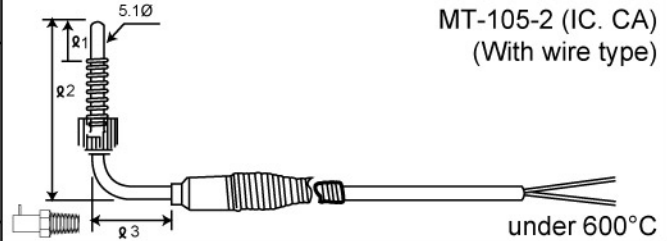
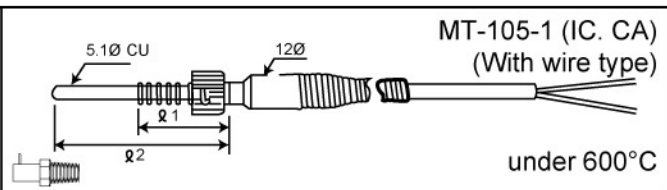
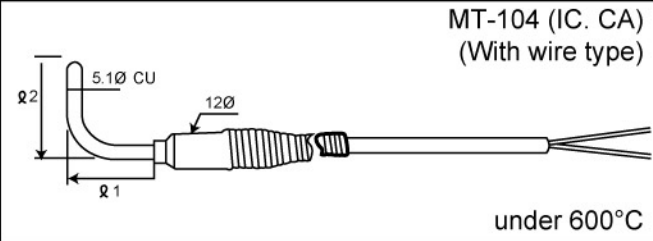
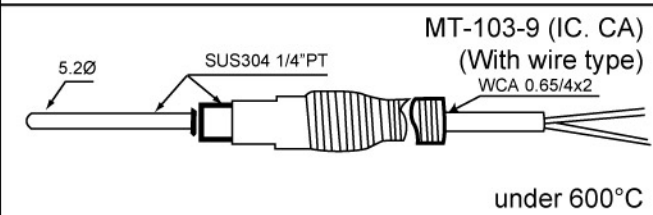
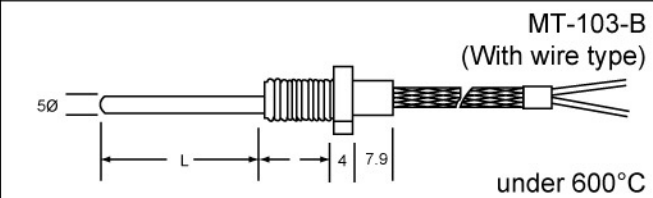
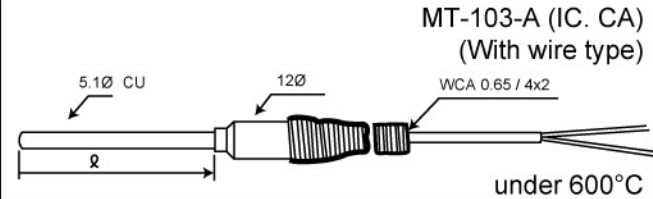
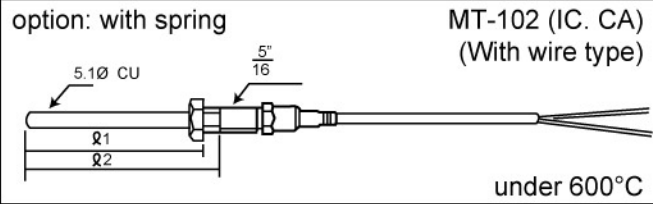
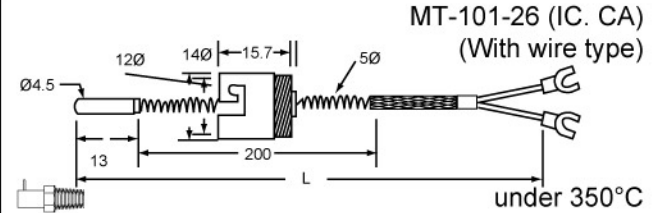
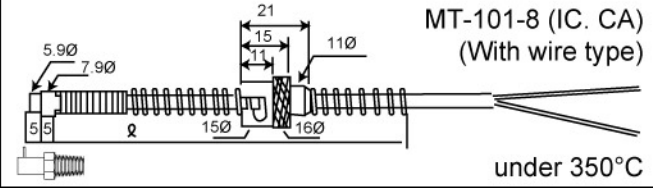
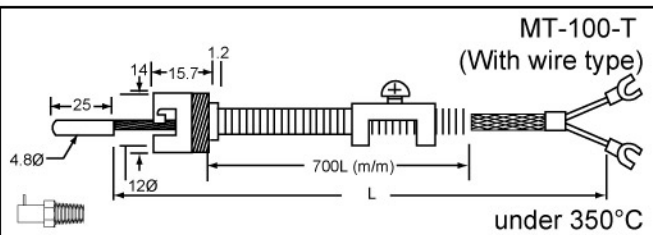
- A. Model :** MT-106, 106-1, 107, 108, 109.....(refer to page 35 & 36)
- B. Signal type :** K, J, PT100, R, S, & others
- C. Thread connection type :** 3/8, 1/2, 3/4 & others
- D. Tube diameter & length :** 5Ø, 9.5Ø, 12.7Ø, 15.9Ø, 17.3Ø, 21.7Ø and others

P.S. MT-106 & 107 use stainless sus 304 tube normally.  
 MT-109 & 109-1 use ceramic tube normally.  
 under 12.7Ø tube use KS (small) head normally.  
 15.9Ø up use KN (big) head normally.

M T Series

**General Thermocouple**

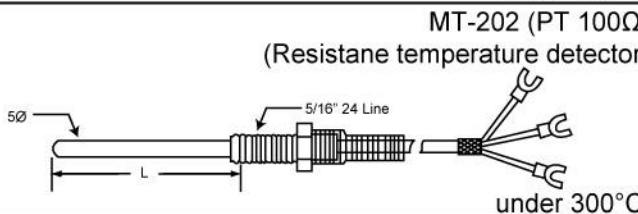
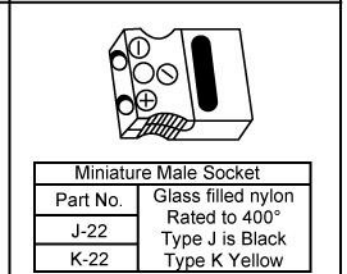
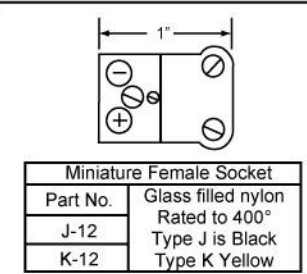
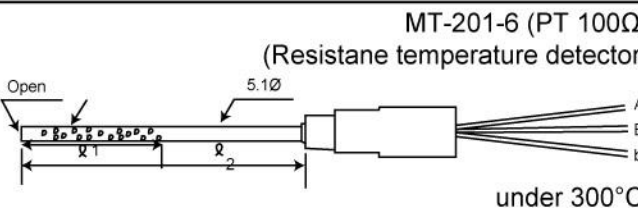
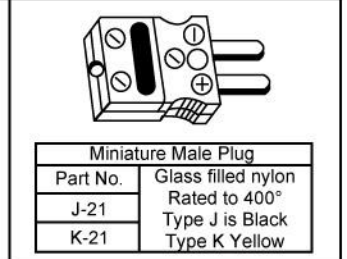
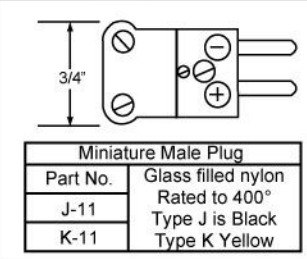
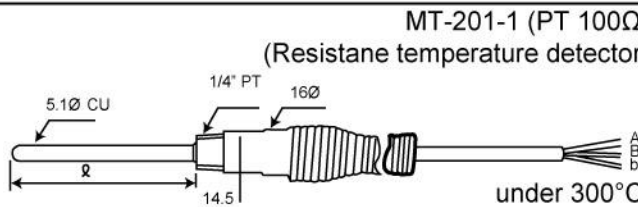
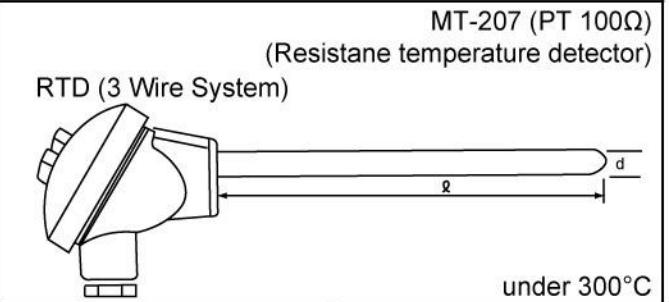
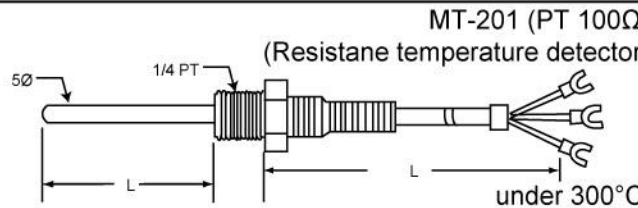
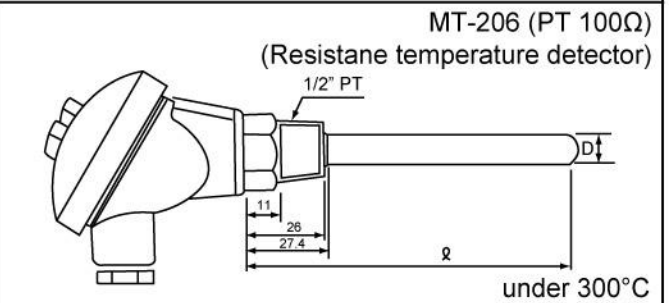
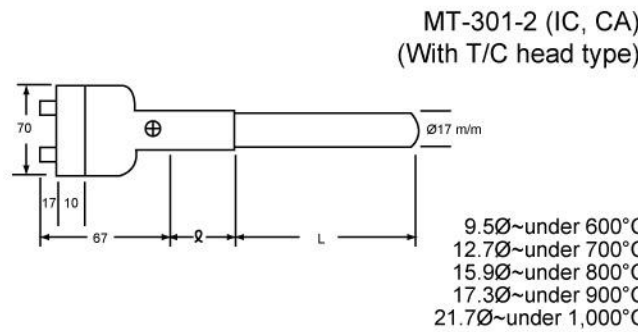
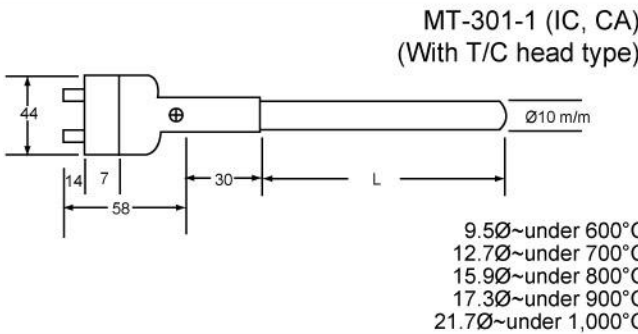
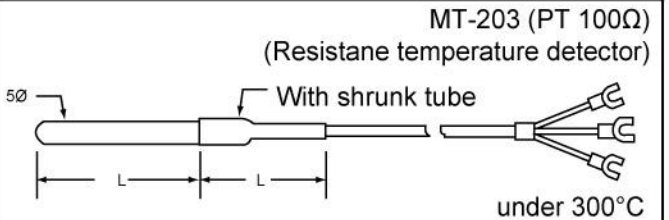
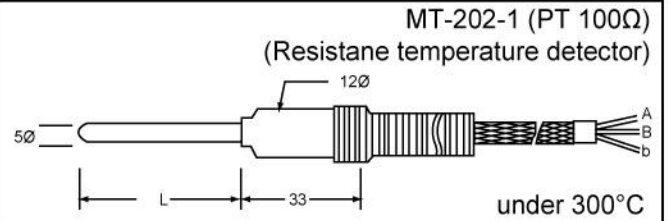
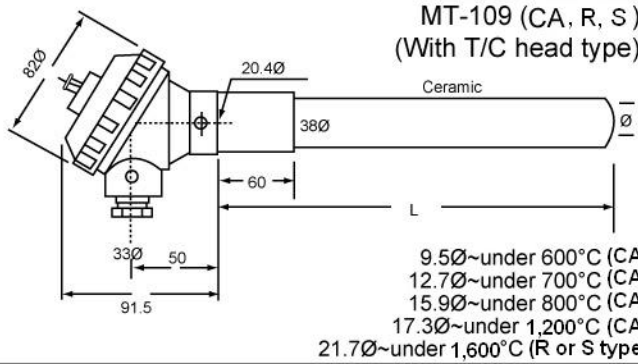
**Dimension**



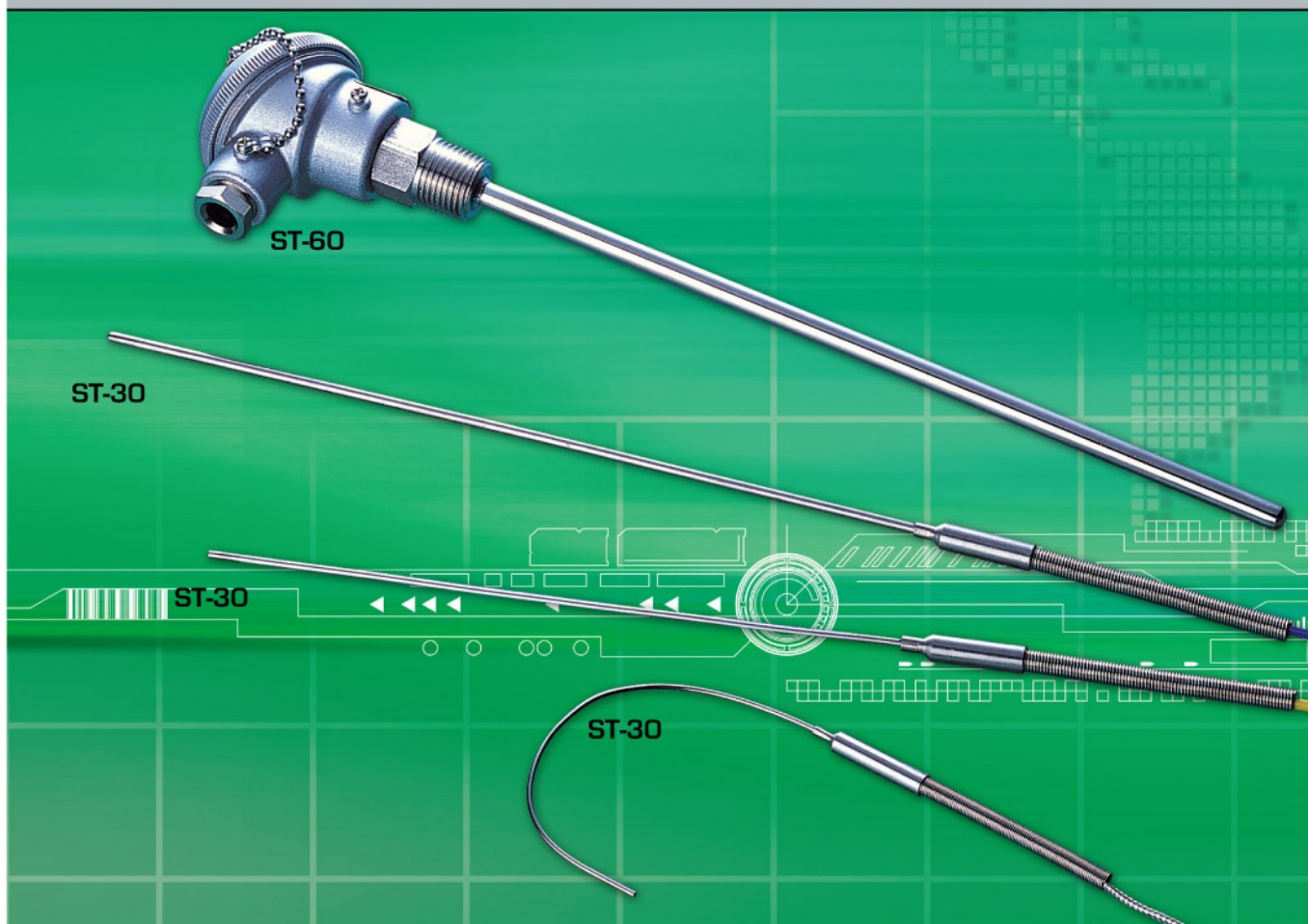
M T Series

**General Thermocouple**

**Dimension**



M  
T  
S  
e  
r  
i  
e  
s



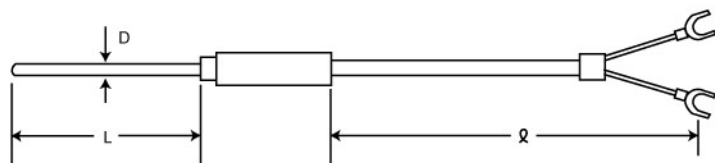
## Sheath Thermocouple

### Specification

Thermocouple Wire	Sheath Outer Dia.						
	Sheath Material	1.0Ø	1.6Ø	3.2Ø	4.8Ø	6.4Ø	8.0Ø
C-A	Inconel 600	500°C	700°C	900°C	1000°C	1050°C	1100°C
C-A	SUS-316	450	600	700	800	850	900
I-C	SUS-316	250	350	450	500	Max. Working Temp.	

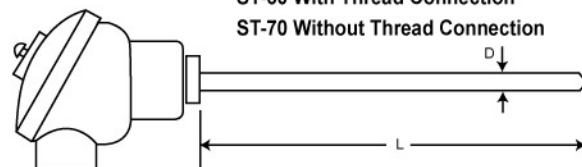
### Dimension

ST-30 With wire



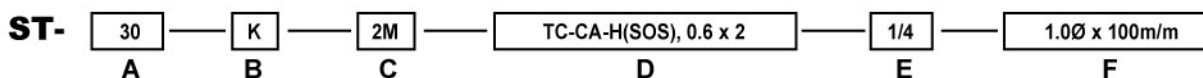
ST-60 With Thread Connection

ST-70 Without Thread Connection



### Ordering Information

#### Sheath thermocouple



**A. Model :** 30-with wire type

60-with T/C head type and with thread connection

70-with T/C head type and without thread connection

**B. Signal type :** K, J

**C. Extension wire length :** 1M, 2M, 3M, 4M, 5M, 6M & others (Q)

**D. Extension wire type :** Refer to compensating lead wire specification

**E. Thread connection type :** 1/4, 5/16, 3/8, 1/2, 3/4 & others

**F. Tube diameter & length :** 1.0Ø, 1.6Ø, 3.0Ø, 4.8Ø, 6.4Ø, 8Ø (D & L)





**Thermocouple & Current Loop Simulator**

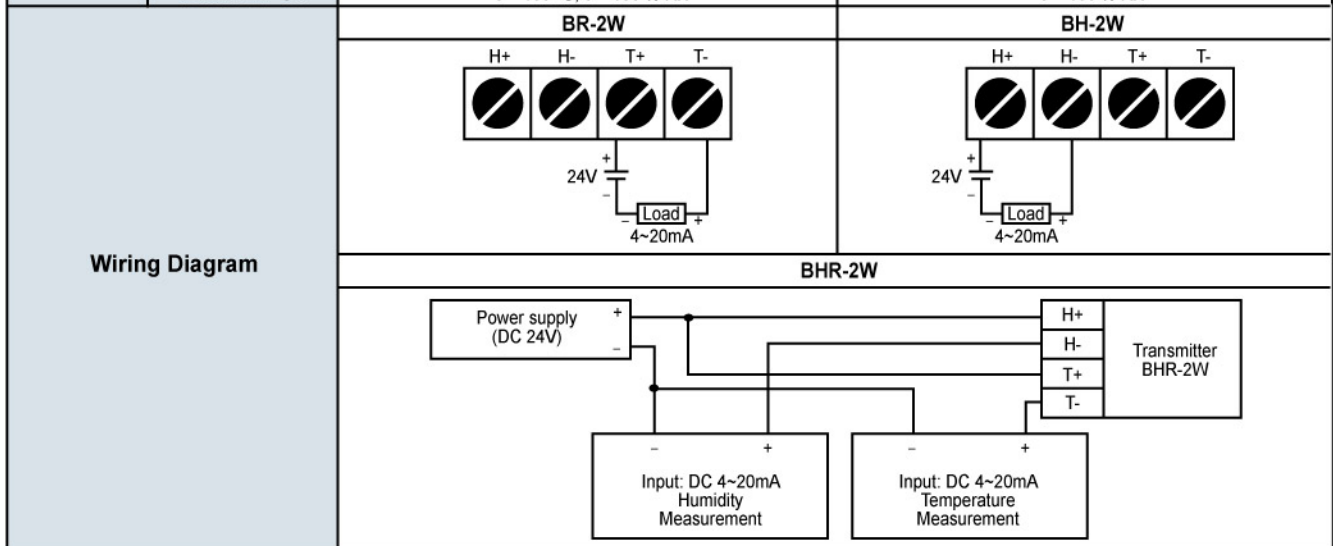
601K	601J	603	Model No.
Type K	Type J	4~20mA	Output Range
0°C (32°F)	0°C (32°F)	4mA	
100°C (212°F)	100°C (212°F)	12mA	
200°C (392°F)	200°C (392°F)	20mA	
400°C (752°F)	400°C (752°F)	-	
± 0.5°C (± 1°F)		0.2mA	Accuracy
9V Battery x1			Power
			Panel Functions
			Dimensions (Unit: mm)
250g			Weight

6  
0  
1  
K  
/  
6  
0  
1  
J  
/  
6  
0  
3



**Room Temperature & Humidity Transmitter**

Model No.	BR-2W, BHR-2W	BH-2W, BHR-2W	
Specification	Temperature Specifications	Humidity Specifications	
Sensor	LM35DZ or Sensor	—	
Accuracy	± 1°C (0.5°C option)	± 5 % (± 3% option)	
Range	0~50°C, 0~100°C, -10~50°C	0~100% RH non-condensing	
Power Supply	DC 18~32V	DC 18~32V	
Dielectric Strength	AC 1800V/1min (Input/Power)	AC 1800V/1min (Input/Power)	
Span Adjustment	±10%	±10%	
Zero Adjustment	±5%	±5%	
Response Time	1 sec. (0~90%)	1 sec. (0~90%)	
Output Current	4~20mA, 2-wire loop power	4~20mA, 2-wire loop power	
Load Resistance	≤500Ω	≤500Ω	
Output Ripple	≤0.5% RO. (Peak-peak)	≤0.5% RO. (Peak-peak)	
Dimensions	85.5(W) x 85.5(H) x 28(D)mm	85.5(W) x 85.5(H) x 28(D)mm	
Humidity Sensor	Package	Style solder able SIP	
	RH Accuracy	± 2% RH, 0~100%RH non-condensing 25°C (77°F) 5 VDC supply	
	RH Linearity	± 0.5% RH typical	
	RH Repeatability	± 0.5% RH	
	RH Stability	± 1% RH typical at 50% RH in 5 years	
Ordering Information	Model	Temp. Range	
	BR-2W-01	-10 ~ +50 °C	
	BR-2W-02	-20 ~ +50 °C	
	BR-2W-03	0 ~ 50 °C	
	BR-2W-04	0 ~ 100 °C	
	BH-2W-01	—	0 ~ 100 % RH
	BHR-2W-01	-10 ~ +50 °C, 0 ~ 100 % RH	0 ~ 100 % RH
	BHR-2W-02	-20 ~ +50 °C, 0 ~ 100 % RH	0 ~ 100 % RH
	BHR-2W-03	0 ~ 50 °C, 0 ~ 100 % RH	0 ~ 100 % RH
BHR-2W-04	0 ~ 100 °C, 0 ~ 100 % RH	0 ~ 100 % RH	



BR-2W / BH-2W / BHR-2W

D Type

W Type



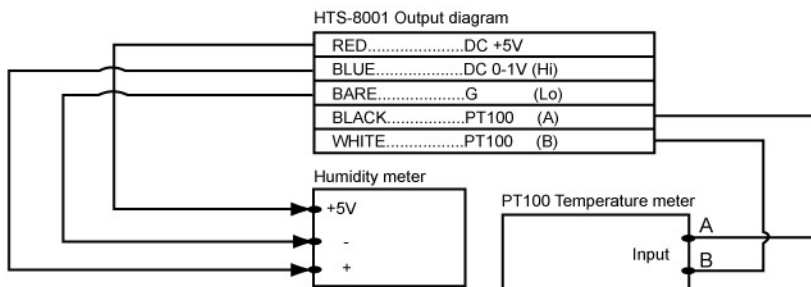
HTS-801  
HS-801  
TS-801

HTS-8001  
HS-8001  
TS-8001

## Humidity & Temperature Transmitter

HTS-801	HS-801	TS-801	Model No.	
Humidity & Temperature Transmitter	Humidity Transmitter	Temperature Transmitter	Control Type	
4~20mA Equivalent 0~100% RH, 4~20mA Equivalent -20~+80 °C			Basic Type	
Temperature: Pt 100Ω DIN, IEC 751			Sensor (Combined)	
Humidity: Macro-Molecule humidity sensor			Measurement Range	
Temperature: -20~+80°C			Accuracy (TAMB=25°C)	
Humidity: 0~100% RH			Output Signals	
Temperature: ±0.4°C			Permissible Load Resistance	
Humidity: ±2.5% RH (30~90% RH)			Power Supply	
Temperature: 4~20mA two-wire			Housing	
Humidity: 4~20mA two-wire			Weight	
Zero and Span Adjustable			Ambient Temperature	
Option: Voltage Output			Features	
Current Output Type: Less Than 600Ω (at 24V Power Supply)			D	
DC 9~40V, Approx. 60mA			W	
Plastic Mounting Case (Water-Resistant)			A	
Approx. 220g			V	
-20~+85°C			Shape (Mounting)	
Quickly Fixed to wall or in a duct.			Output	
Water-Resistant Plastic Mounting Case			Ordering Information	
High Accuracy and Fast Response			Remark	
Output Calibrations (RH and Temp.) can be Modified				
Long-Term Stability				
Combined Supply: 9~40VDC				
Low-Cost				
Duct Mount Type (Dimensions: 135(L) x 70(W) x 165(H)mm)				
Wall Mount Type (Dimensions: 260(L) x 70(W) x 45(H)mm)				
Current Output				
Voltage Output				
Ordering Example: HTS-801 WA humidity and temperature, wall mounting type, with current signal output.				

HTS-8001	HS-8001	TS-8001	Model No.	
Humidity & Temperature Sensor	Humidity Sensor	Temperature Sensor	Sensor	
4.75~5.25 V			Operating Voltage (V)	
0.6 mA (V=5VDC, 25°C)			Operating Current	
10 mv1% RH (V=5VDC, 25°C)			Output Voltage	
200 kΩ (at DC)			Output Impedance	
-3~+3% RH (V=5VDC, 25°C), (5 to 95% RH), (See characteristics chart)			Accuracy	
Allow 20 min. for stabilization			Hysteresis	
1 min. (the required time to response 90% humidity change between 30% and 85% RH)			Response Time	
0~+45°C (V=5.0V, without dewing)			Operating Temperature	
Power in: DC5V, Signal Output: 0~1VDC, Sensor probe: 18φ x 150mm				
Remark				



Wiring Diagram

HTS / HS / TS



**T / C Head Type Temperature Transmitter**

Model No.	PTT-PT100	PTT-K	PTT-J	PTT-E	PTT-T
Input Range	PT100Ω -100 ~ 800°C (Programming by DS)	Type K 0~1200°C	Type J 0~1000°C	Type E 0 ~ 800°C	Type T -50 ~ 400°C
Input Impedance	≥ 10M ohm	≥ 1M ohm	≥ 1M ohm	≥ 1M ohm	≥ 1M ohm
Output Range	4 ~ 20 mA (2 wired)				
Load Resistance	≤ (Vs-16) / 20mA (ohm)				
Accuracy	T/C ( K, J, E, T ): ± 0.3% of F.S. RTD ( Pt100 ): ± 0.15% of F.S.				
Response Time	≤ 300 msec.				
Span Adjustment	≤ 20% of F.S.				
Zero Adjustment	≤ 10% of F.S.				
Output Ripple	≤ 0.3% of F.S.				
Power Supply	DC 20 ~ 36V				
Open Circuit Protection	Upscale > 22mA				
Operating Temperature	0~60°C				
Operating Relative Humidity	20~95 %RH				
Temperature Coefficient	≤ 100 PPM/°C				
Cold junction Compensation	25 ± 10°C, error ≤ 0.5°C				
Storage Temperature	-10~70 °C				
Dimensions	42(D)mm x 31(H)mm				
Housing	ABS fire-extinguishing				
Terminals	Screw terminal, ≤ 2.5mm <sup>2</sup> wire / AWG 14				
Mounting	DIN B-head or larger				
Weight	50g				
RFI/EMI	EN50081-1, EN50082-2				

PTT — K — F  
(A) (B)

Input Type(A) Input Range(B)	RTD	Thermocouple				Temperature Range
	PT100	K	J	E	T	
A	●				●	-50~+100°C
B	●					-10~+40°C
C	●	●	●	●	●	0~+50°C
D	●	●	●	●	●	0~+100°C
E	●	●	●	●	●	0~+200°C
F	●	●	●	●	●	0~+400°C
G	●	●	●	●		0~+500°C
H	●	●	●	●		0~+600°C
I	●	●	●	●		0~+800°C
J		●	●			0~+1000°C
K		●				0~+1200°C
L		●				0~+1300°C
M						400~+1600°C
O						Specify

Features
1. Accuracy: T/C: 0.3% Pt100Ω: 0.15% 2. Wide selection of input with difference sensor type & range 3. Dimension small 4. Low output ripple 5. High stability & low cost

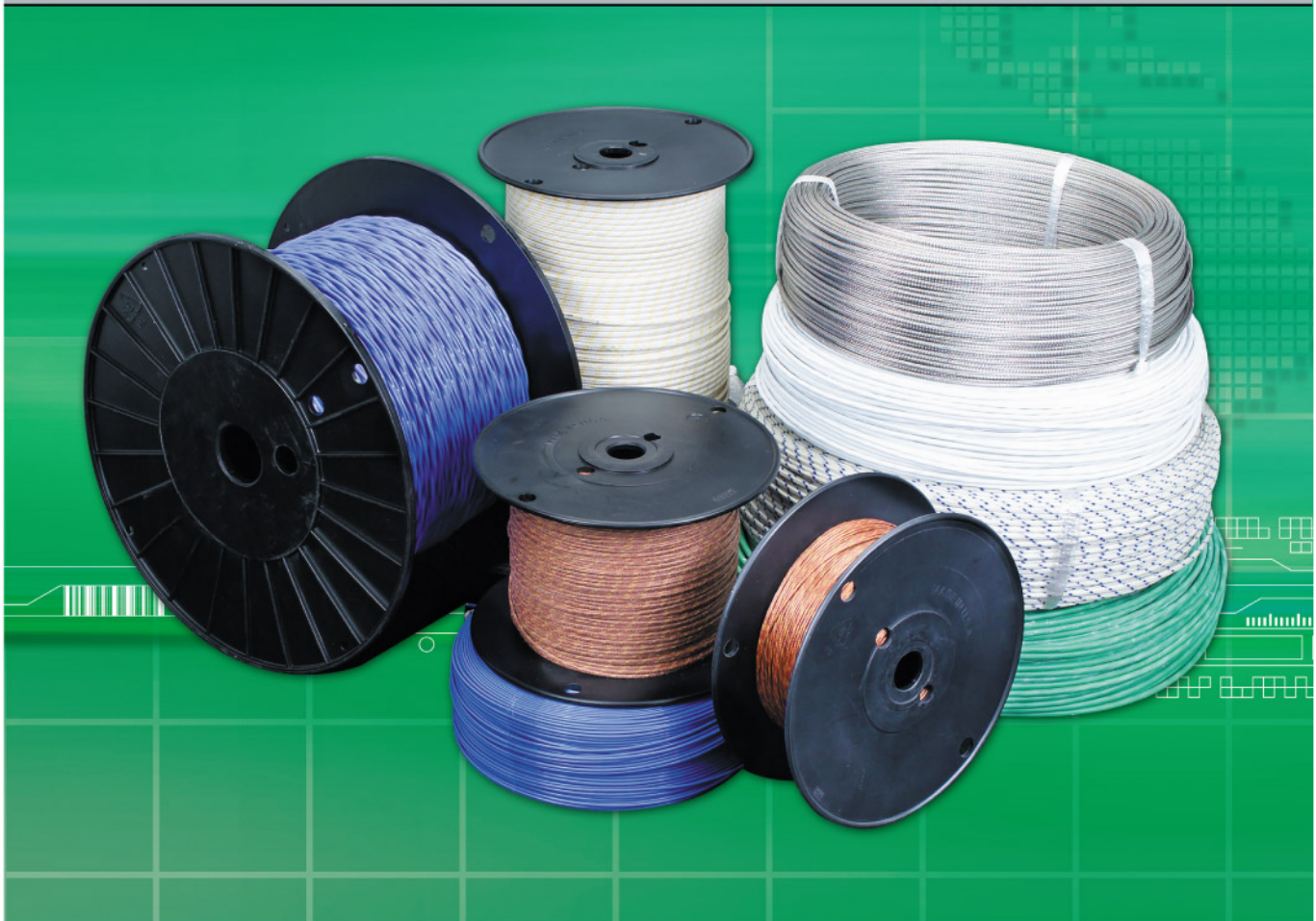
P P  
 T T  
 T T  
 I I  
 P T  
 T 1  
 0 0  
 / P  
 T T  
 I I  
 K /  
 P T  
 T I  
 J /  
 P T  
 T I  
 E



**Pressure Sensor**

<b>PVA</b>	<b>Model No.</b>
4~20mA or 5V or 10V ±1%	<b>Rated Output</b>
0.1%	<b>Total Error</b>
0.05%	<b>Repeatability</b>
410 or 385Ω	<b>Input Resistance</b>
350Ω	<b>Output Resistance</b>
24VDC	<b>Max. Input Voltage</b>
12VDC (5V Output), 15VDC (10V Output)	<b>Min. Input Voltage</b>
-20°C ~ 80°C	<b>Safe Temp. Range</b>
0.1% R.O. / 10°C	<b>Temp. Effect On Zero Balance</b>
0.1% Load / WC	<b>Temp. Effect On Rated Output</b>
0.5V	<b>Zero Balance</b>
150%	<b>Safe Overload Rating</b>
①② 18~24VDC ③④ Output	<b>Connection</b>
	<b>Diagram (unit: mm)</b>
	<b>Wiring Diagram</b>
<p><b>A. Model :</b> PVA  <b>B. Rated Pressure :</b> In kg / cm<sup>2</sup>  <b>C. Rated Output :</b> 10 for 10V, 5 for 5V, 20 for 4~20mA</p>	<b>Ordering Information</b>
PVA. 10, 20, 35, 50, 100, 200, 350, 400, 500, 750, 1000kg/cm <sup>2</sup>	<b>Ranges</b>

P  
V  
A



**Compensating Lead Wire**

**Specification**

Type 1: Insulation material: Glass Fiber

Wire Code	Specification	Description	Ambiance Temp. Range	Color code Sliver
TC-CA-H(SOS)	0.5 x 2	Glass Fiber, SUS304 Outside Insulation, T/C Grade	0~ 250°C	ANSI K type
TC-CA-H(SOS)	0.65 x 2	Glass Fiber, SUS304 Outside Insulation, T/C Grade	0~ 250°C	JIS K type
TC-CA-H(SOS)	4/0.32 x 2	Glass Fiber, SUS304 Outside Insulation, T/C Grade	0~ 250°C	JIS K type
TC-CA-H(SOS)	7/0.32 x 2	Glass Fiber, SUS304 Outside Insulation, T/C Grade	0~ 250°C	JIS K type
TC-CA-H(SOS)	7/0.20 x 2	Glass Fiber, SUS304 Outside Insulation, T/C Grade	0~ 250°C	JIS K type
TC-IC-H(SOS)	0.65 x 2	Glass Fiber, SUS304 Outside Insulation, T/C Grade	0~ 250°C	JIS J type
TC-IC-H(SOS)	4/0.32 x 2	Glass Fiber, SUS304 Outside Insulation, T/C Grade	0~ 250°C	JIS J type
TC-IC-H(SOS)	7/0.32 x 2	Glass Fiber, SUS304 Outside Insulation, T/C Grade	0~ 250°C	JIS J type
TC-CA-H	0.65 x 2	Glass Fiber, T/C Grade	0~ 250°C	JIS K type
TC-CA-H	0.32 x 2	Glass Fiber, T/C Grade	0~ 250°C	JIS K type
TC-IC-H	0.65 x 2	Glass Fiber, T/C Grade	0~ 250°C	JIS J type
TC-IC-H	0.32 x 2	Glass Fiber, T/C Grade	0~ 250°C	JIS J type
W-CA-H	4/0.32 x 2	Glass Fiber, T/C Extension Grade	0~250°C	JIS K type
W-CA-H	7/0.32 x 2	Glass Fiber, T/C Extension Grade	0~ 250°C	JIS K type
W-CA-H	4/0.65 x 2	Glass Fiber, T/C Extension Grade	0~ 250°C	JIS K type
W-CA-H	7/0.65 x 2	Glass Fiber, T/C Extension Grade	0~ 250°C	JIS K type
TC-CA-H	4/0.32 x 2	Glass Fiber, T/C Grade	0~250°C	JIS K type
TC-CA-H	7/0.32 x 2	Glass Fiber, T/C Grade	0~ 250°C	JIS K type
TC-CA-H	4/0.65 x 2	Glass Fiber T/C Grade	0~ 250°C	JIS K type
TC-CA-H	7/0.65 x 2	Glass Fiber T/C Grade	0~ 250°C	JIS K type
K-FW/FB	30 AWG x 2	Glass Fiber T/C Grade	0~ 482°C	ANSI
K-FB/FB	24 AWG x 2	Glass Fiber T/C Grade	0~ 482°C	ANSI
K-FB/FB	20 AWG x 2	Glass Fiber T/C Grade	0~ 482°C	ANSI
K-RB/RB	20 AWG x 2	Glass Fiber T/C Grade	0~ 760°C	ANSI

TC / RTD Series





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