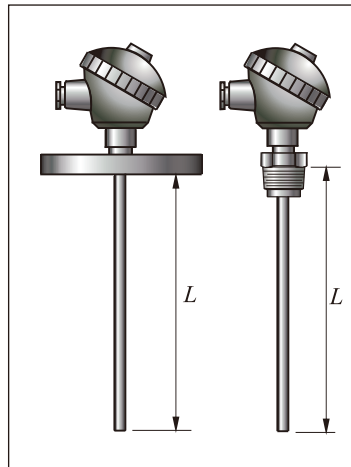




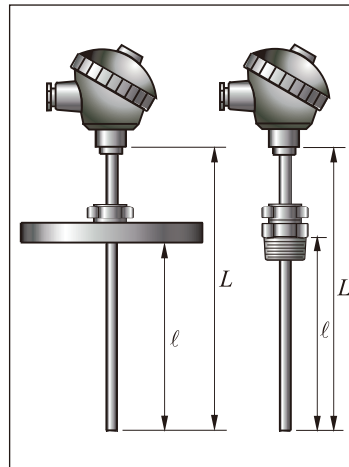
Thermocouple



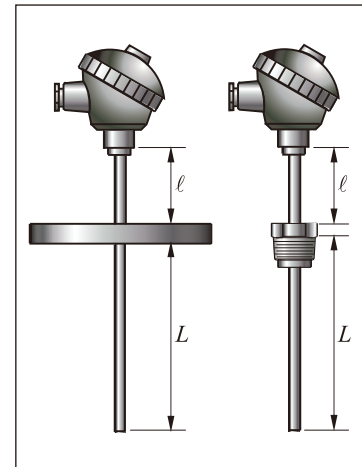
THERMOCOUPLE / RESISTANCE BULB



STANDARD TYPE



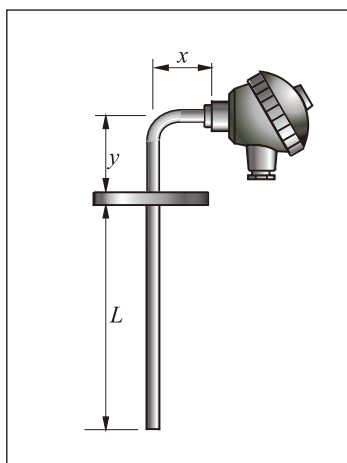
ADJUSTABLE TYPE



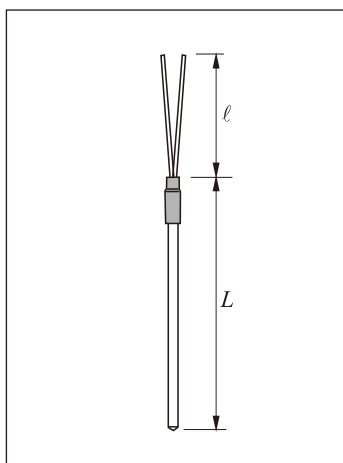
EXTENSION TYPE

Type	 GKEA	 GPEA	 GKEB/GKKB	 GPEB/GPKB	 GKEC/GKKC	 GPEC/GPKC
Operating Temp.	0~1200°C	-50~500°C	0~1200°C	-50~500°C	0~1200°C	-50~500°C
Class Tolerance	JIS 0.75 grade $\pm 0.0075 \times t $	IEC 751 CLASS B $0.3 \pm 0.005 \times t $	JIS 0.75 grade $\pm 0.0075 \times t $	IEC 751 CLASS B $0.3 \pm 0.005 \times t $	JIS 0.75 grade $\pm 0.0075 \times t $	IEC 751 CLASS B $0.3 \pm 0.005 \times t $
Protective Grade	IP65	IP65	IP65/IP44	IP65/IP44	IP65/IP44	IP65/IP44
Connection	1", 1 1/2" × 5kg/cm ² 1/2"PT, 3/4"PT	1", 1 1/2" × 5kg/cm ² 1/2"PT, 3/4"PT	1", 1 1/2" × 5kg/cm ² 1/2"PT, 3/4"PT	1", 1 1/2" × 5kg/cm ² 1/2"PT, 3/4"PT	1", 1 1/2" × 5kg/cm ² 1/2"PT, 3/4"PT	1", 1 1/2" × 5kg/cm ² 1/2"PT, 3/4"PT
Tube diameter	φ5, φ6 φ8, φ9.5	φ8, φ12.7 φ17.2	φ5, φ6 φ8, φ9.5	φ8, φ12.7 φ17.2	φ5, φ6 φ8, φ9.5	φ8, φ12.7 φ17.2
Material	SUS304/316 Titanium	SUS304/316 Titanium	SUS304/316 Titanium	SUS304/316 Titanium	SUS304/316 Titanium	SUS304/316 Titanium
Isolation resistance	>1000MΩ/500V	>1000MΩ/500V	>1000MΩ/500V	>1000MΩ/500V	>1000MΩ/500V	>1000MΩ/500V
Wire	Nickel-Aluminum Nickel-Chromium	---	Nickel-Aluminum Nickel-Chromium	---	Nickel-Aluminum Nickel-Chromium	---

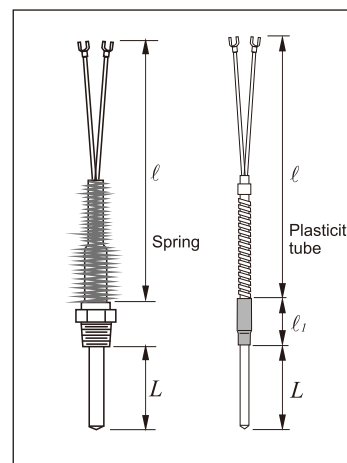
★ Special specification are acceptable



L SHAPE TYPE



ECONOMICAL TYPE

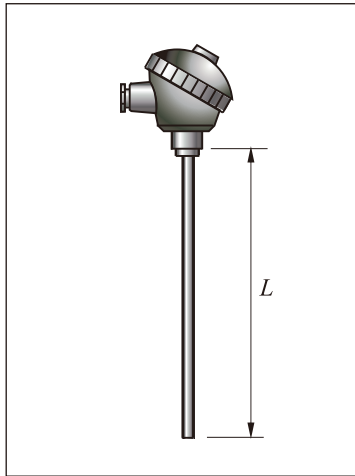


ECONOMICAL TYPE

Type	 GKED/TKKD	 GPED/GDKD	 GK-E	 GP-E	 + Spring GK-F	 + Plasticity tube GP-G
Operating Temp.	0~1200°C	-50~500°C	0~480°C	-50~250°C	0~480°C	-50~250°C
Class Tolerance	JIS 0.75 grade $\pm 0.0075 \times t $	IEC 751 CLASS B $0.3 \pm 0.005 \times t $	JIS 0.75 grade $\pm 0.0075 \times t $	IEC 751 CLASS B $0.3 \pm 0.005 \times t $	JIS 0.75 grade $\pm 0.0075 \times t $	IEC 751 CLASS B $0.3 \pm 0.005 \times t $
Protective Grade	IP65/IP44	IP65/IP44	IP44	IP44	IP44	IP44
Connection	1", 1 1/2" $\times$ 5kg/cm ²	1", 1 1/2" $\times$ 5kg/cm ²	---	---	1/4"PT	1/4"PT
Tube diameter	$\phi 5, \phi 17.2$	$\phi 8, \phi 12.7$ $\phi 17.2$	$\phi 6, \phi 17.2$	$\phi 6, \phi 17.3$	$\phi 6, \phi 17.2$	$\phi 6, \phi 17.3$
Material	SUS304/316 Titanium	SUS304/316 Titanium	SUS304/316 Titanium, PTFE	SUS304/316 PP, PTFE	SUS304/316 Titanium, PTFE	SUS304/316 PP, PTFE
Isolation resistance	>1000M Ω /500V	>1000M Ω /500V	>1000M Ω /500V	>1000M Ω /500V	>1000M Ω /500V	>1000M Ω /500V
Wire	Nickel-Aluminum Nickel-Chromium	---	Nickel-Aluminum Nickel-Chromium	---	Nickel-Aluminum Nickel-Chromium	---
Compensating Lead Wire	---	---	Isolated Cable PVC Cable	PTFE Silver Wire PTFE Copper Wire PVC Cable	Isolated Cable PVC Cable	PTFE Silver Wire PTFE Copper Wire PVC Cable

★ Special specification are acceptable

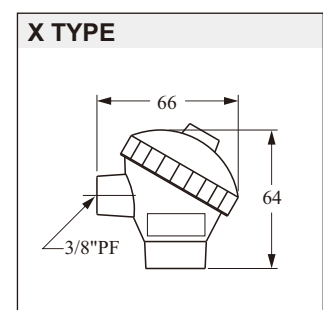
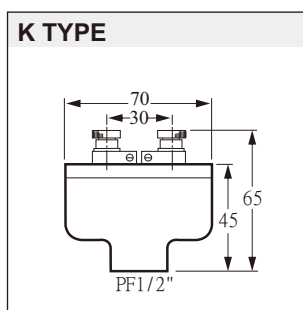
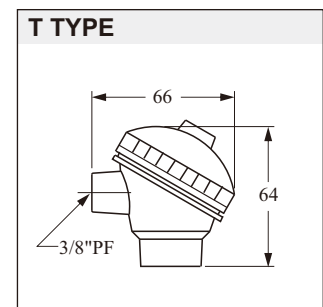
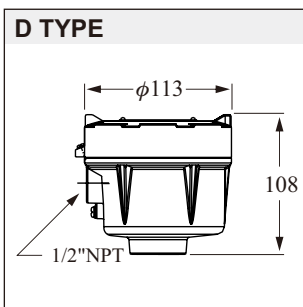
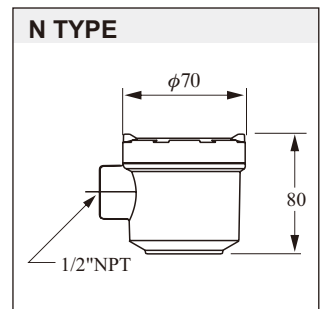
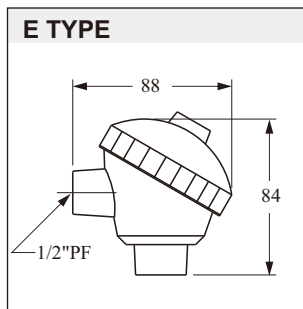
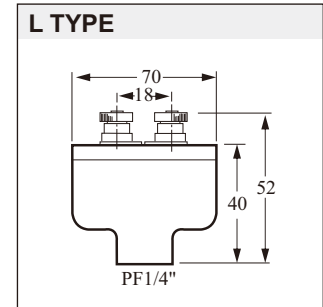
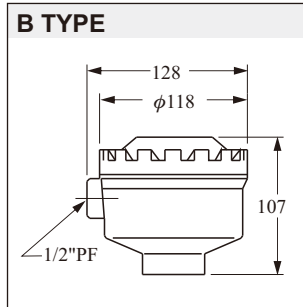
TERMINAL BOX



INTERCALARY TYPE

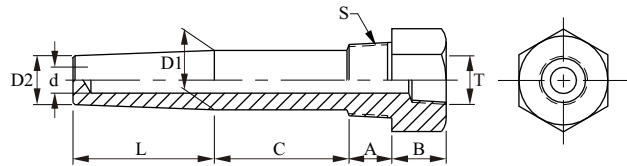
Type	 GKEH	 GPEH
Operating Temp.	0~480°C	-50~250°C
Class Tolerance	JIS 0.75 grade $\pm 0.0075 \times t $	IEC 751 CLASS B $0.3 \pm 0.005 \times t $
Protective Grade	IP65	IP65
Connection	---	---
Tube diameter	$\phi 6, \phi 17.2$	$\phi 6, \phi 17.3$
Material	SUS304/316 Titanium, PTFE	SUS304/316 Titanium
Isolation resistance	>1000M Ω /500V	>1000M Ω /500V
Wire	Nickel-Aluminum Nickel-Chromium	---

★ Special specification are acceptable

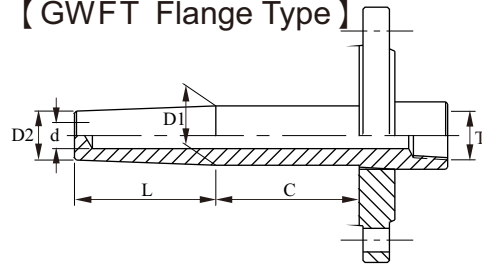


METAL PROTECTION TUBE

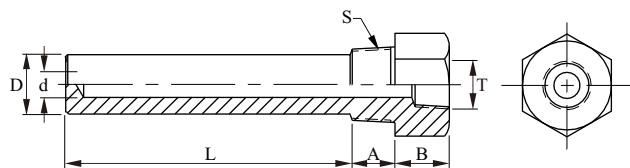
【 GWTT Screw Type 】



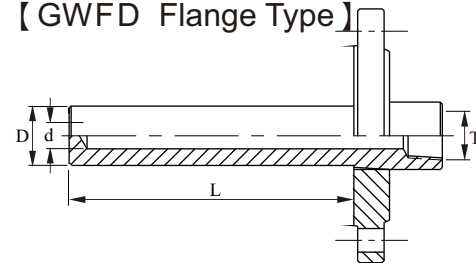
【 GWFT Flange Type 】



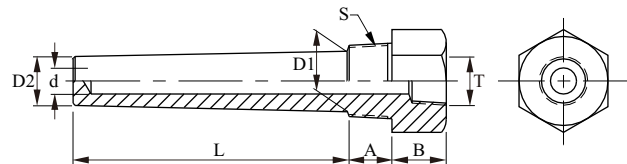
【 GWTD Type 】



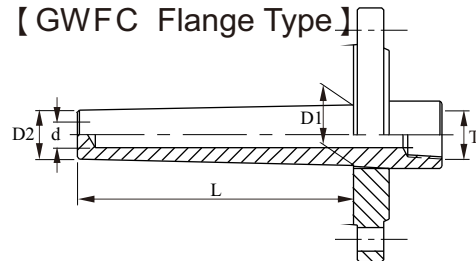
【 GWFD Flange Type 】



【 GWTC Screw Type 】



【 GWFC Flange Type 】



※Please specify the size and material of each part when ordering.

MODEL NUMBER / ORDER CODE COMPARISON TABLE

Model Number	Order Code
GKEA	GKX10000-00E
GPEA	GPX10000-00E
GKEB	GKX10000-A2E
GKKB	GKX10000-A2T
GPEB	GPX10000-A2E
GPKB	GPX10000-A2T
GKEC	GKX10000-A1E
GKKC	GKX10000-A1T
GPEC	GPX10000-A1E
GPKC	GPX10000-A1T
GKED	GKX10000-A3E
GKKD	GKX10000-A3T
GPED	GPX10000-A3E
GPKD	GPX10000-A3T
GK-E	GKX10100-A50
GP-E	GPX10100-A50
GK-F	GKX10100-A60
GP-G	GPX10100-A60
GKEH	GKX10000-A4E
GPEH	GPX10000-A4E

ORDER INFORMATION

	②		X	1	⑤	⑥		0	0	-	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑	㉒	㉓	㉔	㉕	㉖	㉗
	G																												

② **Input signal**

K: Thermocouple K type

J: Thermocouple J type

S: Thermocouple S type

P: Resistance PT100

⑤ ⑥ **Model**

00: Standard

01: Economy (Without terminal box)

⑨ ⑩ **Type**

00: Standard

A1: Extension type

A2: Adjustable type

A3: L shape type

A4: Intercalary type

A5: Economical type

A6: Economical type with spring

A7: Economical type with tube

⑪ **Terminal box**

0: None

E: Terminal head (Aluminum)

T: T type Terminal(Big size)

⑫ **Output signal**

A: DC4~20mA

B: 2-wire output

C: 3-wire output

Connection

⑬ ⑭	⑮ ⑯	⑰ ⑱
00: None	00: None	00: None
Flange	A1: 1/8"	01: PT male
AK: JIS-FF	A2: 1/4"	03: PF male
AN: ANSI-RF	A4: 3/8"	07: NPT male
AS: DIN-FF	A5: 1/2"	40: 5 kg/cm ²
	A7: 3/4"	42: 10 kg/cm ²
Thread	A8: 1"	48: 150 Lbs
AC: ANSI	A9: 1-1/4"	49: 300 Lbs
AA: JIS	B1: 1-1/2"	
	B2: 2"	

(Next page)

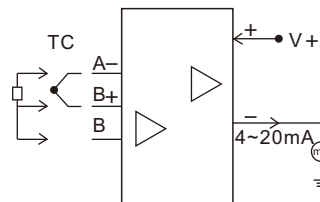
⑲	⑳	Probe diameter						
1A: φ4.0mm 1B: φ5.0mm 1D: φ6.0mm 1F: φ8.0mm 1G: φ9.5mm 2A: φ12.7mm 2D: φ17.2mm								
㉑	㉒	Probe material						
MA: SUS 304 MB: SUS 316 MC: SUS 316L								
㉓	㉔	㉕	㉖	Length				
		<table border="1"> <thead> <tr> <th>Code</th> <th>Probe Length</th> </tr> </thead> <tbody> <tr> <td>0001~9999</td> <td>0001~9999mm</td> </tr> </tbody> </table>			Code	Probe Length	0001~9999	0001~9999mm
Code	Probe Length							
0001~9999	0001~9999mm							
Sensor amount								
A: 1 B: 2 C: 3								



TYPE

TR160 Series Economical type

Input : RTD, TC,
Rohm, mV,
Linear Current,
Linear Voltage



Function summary

Features:

Power supply(Vdc)	18~36V
Ambient temp. range(°C)	-40~85
Isolation	None
Channels	1
CJC accuracy(°C)	±1

Input:

PT100 Span /min. span(°C)	-200~850 / 10
Rohm Span /min. Span(Ω)	0~400 / 5
TC types	B, E, J, K, N, R, S, T
Linear Current, signal range	0~20mA, 4~20mA
Linear Voltage, signal range	0~0.5V, 0~1V, 0~5V, 0~10V, 0~20V

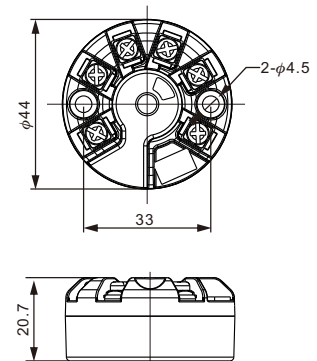
Output:

Loop Power 2-wire output	4~20mA/20~4mA
--------------------------	---------------

Technical summary

	Basic Accuracy	Temperature Coefficient
PT100	$\leq \pm 0.5^{\circ}\text{C}$	$\leq \pm 0.005^{\circ}\text{C}$
Rohm	$\leq \pm 0.4\Omega$	$\leq \pm 0.005^{\circ}\text{C}$
TC type: E, J, K, N, T	$\leq \pm 4^{\circ}\text{C}$	$\leq \pm 0.04^{\circ}\text{C}$
TC type: B	$\leq \pm 3^{\circ}\text{C}$	$\leq \pm 0.01^{\circ}\text{C}$
TC type: R, S	$\leq \pm 3^{\circ}\text{C}$	$\leq \pm 0.04^{\circ}\text{C}$
TC type: T	$\leq \pm 2^{\circ}\text{C}$	$\leq \pm 0.01^{\circ}\text{C}$
Voltage	$\leq \pm 0.1\text{mV}$	$\leq \pm 0.005^{\circ}\text{C}$

Dimensions



(Unit: mm)

TR160 SPECIFICATION / ORDER INFORMATION

Model Number	Order Code
TR160	TRX20100-A

TRX 2 0 1 0 0 - A ^⑩^⑪^⑫^⑬ ☐ ☐ ☐ ☐

⑩⑪ Input range

- V1: 0~0.5V
- V2: 0~1V
- V3: 0~5V
- V4: 0~10V
- V5: 0~20V
- I1: 4~20mA
- I2: 0~20mA
- T1: ALL
- T2: K Type -200°C~1370°C
- TK: K Type -90°C~320°C
- T3: J Type -210°C~1200°C
- TJ: J Type -90°C~320°C
- T4: T Type -200°C~400°C
- T5: E Type -200°C~1000°C
- T6: R Type -50°C~1760°C
- T7: S Type -50°C~1760°C
- T8: B Type -250°C~1820°C
- T9: N Type -200°C~1300°C
- TA: PT 100 -200°C~850°C
- R1: 0~400 Ω

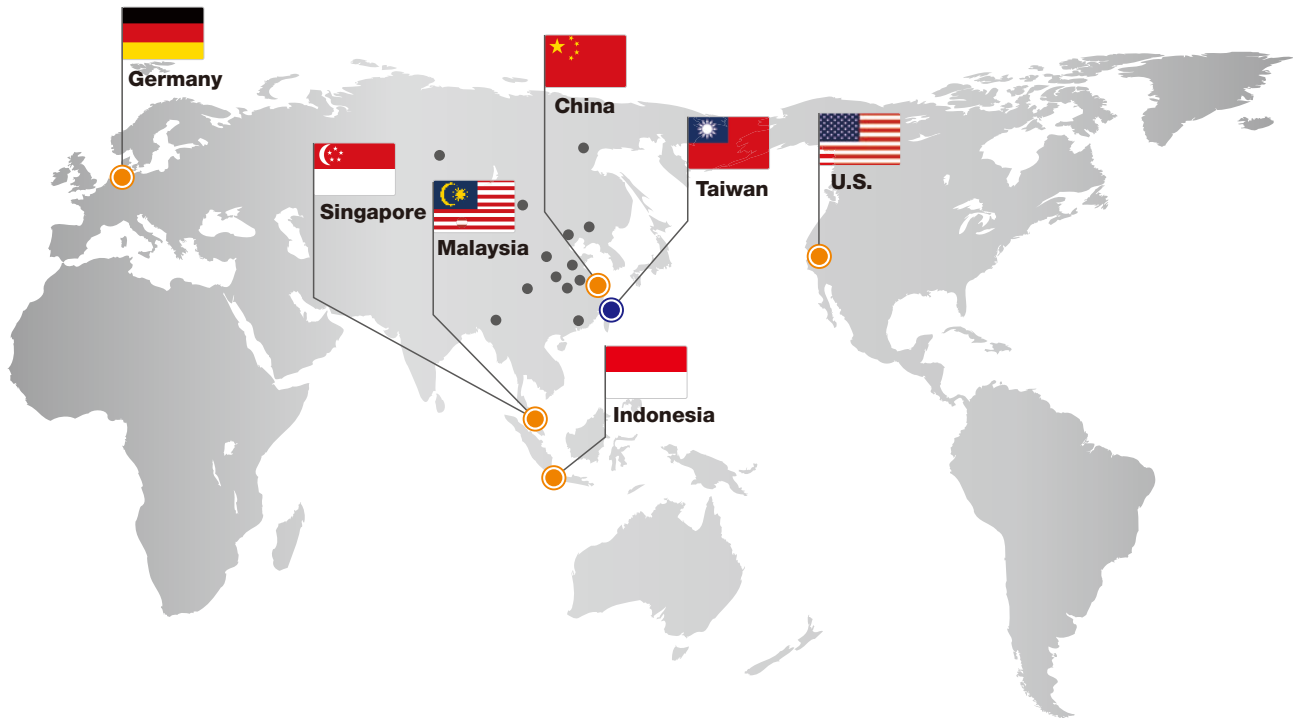
⑫ Analong output

- 1: 4~20mA
- 2: 20~4mA

⑬ Display unit

- A: °C
- B: °F

Global Network



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