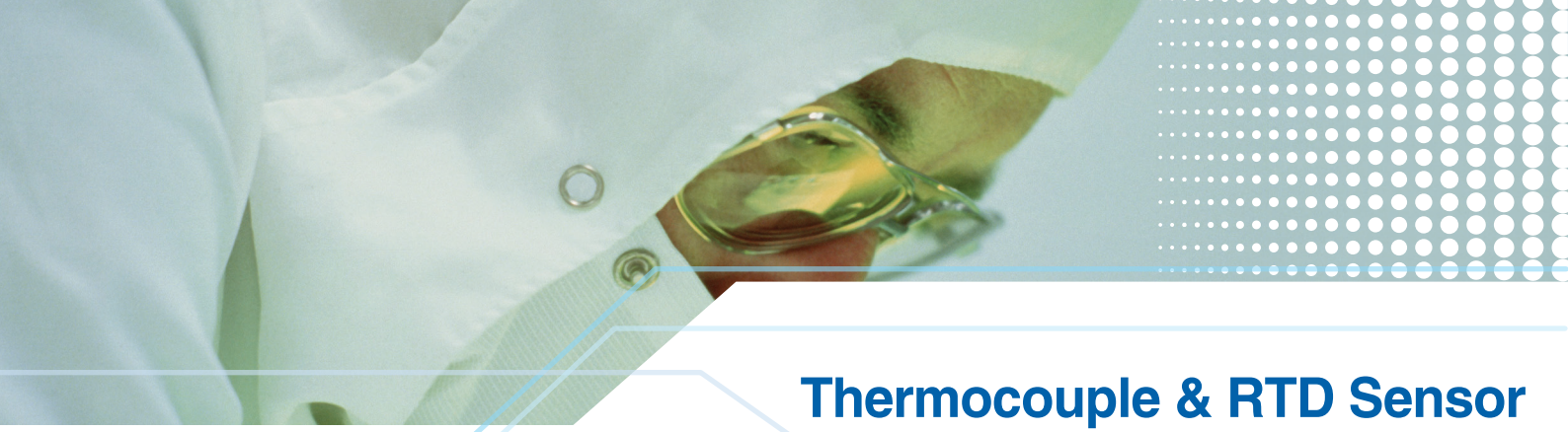


Thermocouple & RTD Sensor

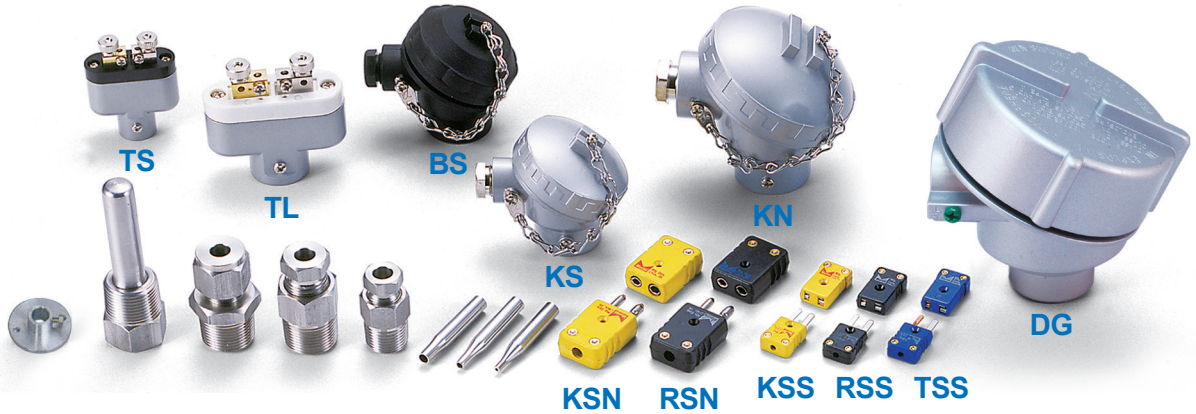
Thermocouple

The basic theory of the thermocouple effect is found from a consideration of the electrical and thermal transport properties of different metals. A measurement junction (this junction is formed of different metal) is exposed to the environment whose temperature is to be measured. The other "reference" junction (known as cold junction) are held at common. The "seeback voltage" then is proportional to the difference between junction temperatures. Certain standard configurations of thermocouples using specific metals (or alloys of metals) have been adoped, each type has its particular features. Such as range, linearity inertness to hostile environment sensitivity, and so on, and is chosen for specific applications accordingly.

PT100

A resistance-temperature detector (RTD) is a temperature transducer that is based on the principles, that is, metal resistance increasing with temperature. An estimation of RTD sensitivity can be noted from typical values of the linear fractional change in resistance with temperature. For platinum, this number is typically on the order of 0.0385/°C thus, a change of only 0.385 wiuld be expected for PT100 if the temperature is changed by 1°C.

Terminal & Fitting type

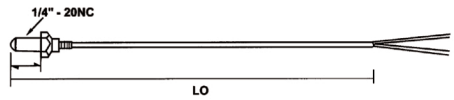


Wires

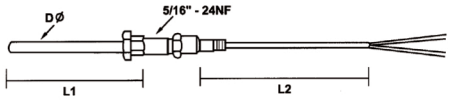
Wire No.	Specificetion	Temp-Range
TC-CA-H (SOS)	SUS304 Outside Insulation	0~150°C
TC-IC-H (SOS)	SUS304 Outside Insulation	0~150°C
WCA-H	Glass Fiber	0~150°C
WIC-H	Glass Fiber	0~150°C
WPR-H	Glass Fiber	0~150°C
WCA-G	T/C Grade PVC	0~100°C
WIC-G	T/C Grade PVC	0~100°C
RTD-PVC	RTD PVC Lead Wire	0~100°C
RTD-TF	RTD Teflon Lead Wire	0~200°C

Dimension

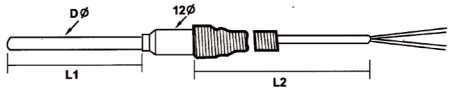
☐-LW-B



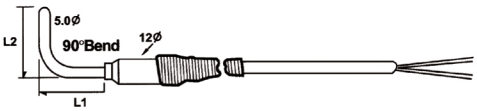
☐-LW-C



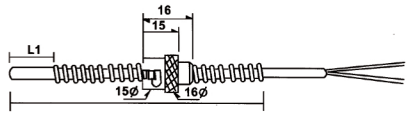
☐-LW-A



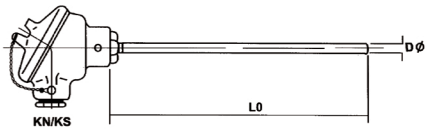
☐-LW-A (Curvy)



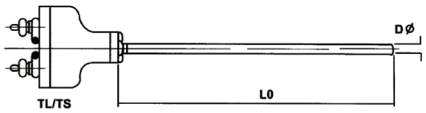
☐-LW-U



☐-KN-N



☐-TL-N



☐-SS-N

Ordering Information

VT-☐ ☐☐ ☐ ☐ ☐☐☐☐L ☐ ☐☐☐M ☐

Type	Code
J	J
K	K
B	B
R	R
S	S
T	T
PT100	D

Terminal Type	Code
Lead Wire	LW
KN Box	KN
KS Box	KS
BN Box	BN
Bakelite Box	BS
TL Box	TL
TS Box	TS
Socke (Big)	SN
Socke (Small)	SS
D2G4	DG

Fitting Size	Code
None	N
Sleeve	A
1/4" -20NC	B
5/16" -24NC	C
PT1/8" 1	D
PT1/4" 2	E
PT3/8" 3	F
PT1/2" 4	G
PT3/4" 6	H
PT1" 8	I
PF1/8" 1	J
PF1/4" 2	K
PF3/8" 3	L
PF1/2" 4	M
PF3/4" 6	O
PF1" 8	P
M6	Q
M8	R
M10	S
M12	T
Bayonet	U

Tube Dia	Code
3.2ø	A
4.8ø	B
5.0ø	C
6.3ø	D
8.0ø	E
9.6ø	F
10ø	G
12.7ø	H
15ø	I
17ø	J
21.7ø	K

Tube Length	Code
50mm	0050
200mm	0200
`	
`	
`	
`	
as your request	

Material	Code
SUS304	1
SUS316	2
Teflon	3
Ti	4
Ceramic	5
Inconel	6

Lead Wire Length	Code
1M	001
10M	010
150M	150
`	
`	
`	
`	
as your request	

Material	Code
SUS304	A
Fiber glass	B
PVC	C
Teflon	D