

Specification

Type	Wire Diameter	Temperature		Applicable Diameter	Class
		Normal Temp	Max. Temp		
K Type	3.2	1000°C	1200°C	>15	A: ANSI-SP ±1.1°C or 0.4°C B: ANSI-SDT ±2.2°C or 0.75°C
	2.3	900°C	1100°C	>12.7	
	1.6	850°C	1050°C	>9.5	
	1.0	750°C	950°C	>6.4	
	0.65	650°C	850°C	>5.0	
E Type	1.6	550°C	650°C	>9.5	
	1.0	500°C	550°C	>6.4	
	0.65	450°C	500°C	>5.0	
J Type	2.3	550°C	750°C	>12.7	
	1.6	500°C	650°C	>9.5	
	1.0	450°C	550°C	>6.4	
	0.65	400°C	500°C	>5.0	
T Type	1.6	300°C	350°C	>9.5	
	1.0	250°C	300°C	>6.4	
	0.65	200°C	250°C	>5.0	
B Type	0.5	1500°C	1700°C		
R Type	0.5	1400°C	1600°C		
S Type	0.5	1400°C	1600°C		
Pt100Ω	0.5	L: 0~+100°C A: 0~+200°C M: -200~+200°C H: 0~+400°C			DIN43760-79 A: ±(0.15+0.002 t) B: ±(0.3+0.005 t)

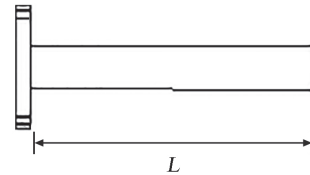
Safety

Insulation resistance: 1000M / 500Vdc

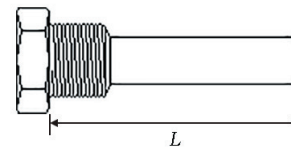
Mechanical Characteristics

Material: Tube connection: St. Steel 316
Head: Aluminum case
Tube Diameter: 3.2, 4.8, 5.0, 6.4, 8.0, 9.5, 12.7, 15.0, 17.0mm
Connection: 1/4", 3/8", 1/2" NPT or PT male
Adjustment screw or flange
Screw of protective tube: 1/4", 3/8", 1/2" NPT or PT male
Adjustment flange

Flange Type



Screw Type



Ordering Information

TH — Model — Terminal Box — Sensor Type — Sensor Wire — Tube Length — Tube Diameter — Screw Type

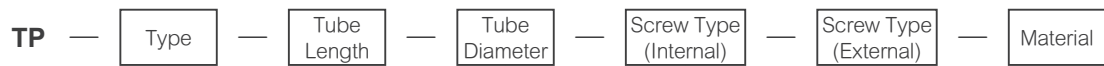
CODE		CODE		CODE		CODE		CODE		CODE			
Mode		Terminal		Sensor Type		Sensor Wire		Length		Diameter		Type	
FF	Standard Flange	B	Big Box	K	Type K	320	3.2 mm	L	ℓ1	3	3.2 mm	P1	3/4" PT
FA	Adjustment Flange	M	Small Box	J	Type J	230	2.3 mm	03	03 30 mm	4	4.8 mm	P2	1/4" PT
SF	Standard Screw	N	None Box	E	Type E	160	1.6 mm	04	04 40 mm	5	5.0 mm	P3	3/8" PT
SA	Adjustment Screw	S	Single Element	T	Type T	100	1.0 mm	05	05 50 mm	6	6.4 mm	P4	1/2" PT
EN	Economic	D	Dual Elements	R	Type R	065	0.65 mm	06	06 60 mm	8	8.0 mm	*P5	*1/8" PT
ES	Economic Spring	When selecting dual elements (D), Tube Diameter must be more than 6.4mm.		S	Type S	050	0.50 mm	08	08 80 mm	95	9.5 mm	N1	3/4" NPT
MR	Round Terminal			B	Type B	N	Special for MR	10	10 100 mm	150	15.0 mm	N2	1/4" NPT
				PL	Pt100 0~+100°C	PVC is only 0.5mm optional. Please refer specification and operating temperature range, select the applicable wire diameter. Inappropriate wire diameter, it will shorten the life of the temperature sensor. Example: Type K is used at about 900 °C . Please use the 2.3 diameter. If 0.65 is selected, it can be used. However, the relative service life will be shortened.		12	12 120 mm	170	17.0 mm	N3	3/8" NPT
				PA	Pt100 0~+200°C			15	15 150 mm	C	12.7 mm	N4	1/2" NPT
				PM	Pt100 -200~+200°C			20	20 200 mm	N	Special for MR	G3	3/8 G
				PH	Pt100 0~+400°C			22	22 220 mm				
								25	25 250 mm				
								26	26 260 mm				
								30	30 300 mm				
								31	31 310 mm				
								35	35 350 mm				
								40	40 400 mm				
								4F	4F 415 mm				
								50	50 500 mm				
								80	80 800 mm				
								A0	A0 1000 mm				
								A5	A5 1500 mm				
								K0	K0 2000 mm				
								K5	K5 2500 mm				
								N	Special for MR				
								ℓ1 Except FF and SF, other forms are filled with 00.					
												Connection	Diameter
												1/8":	<5mm
												1/4":	<8mm
												3/8":	<9.5mm
												1/2":	<15mm
												3/4":	<21.7mm
												*Selected 5mm only	

※Only the EN, ES and MR types are used, and the rest are not filled(blank).

— Tube Material — Protective Tube Type — Wire Material — Wire Length — Wire Port Seal — Wire Terminal Type (Standard is Y-type)

CODE		CODE		CODE		CODE		CODE		CODE	
Material		Type		Material		Length ℓ2		Type		Type	
A	SUS304	F	Flange Type	P	PVC	03	30 mm	N	Heat Shrink Tube	N	None
B	SUS316	S	Screw Type	T	Teflon	04	40 mm	G	Silicon Seal	R	Round Type
C	Teflon(Outer Coating)	N	None	F	Network Cable	05	50 mm	NA	Heart Shrink Tube (Strong Waterproof)	Y	Y Type
D	Teflon(Whole)	When choosing protective tube (F or S), the length of the tube will change to the length of the "Protective Tube". And you must purchase the model of the protective tube on the next page. Example: The sensor tube length is 100mm and the protective tube is also 100mm. The protective tube is mainly 100mm, and the length of the sensor tube is automatically increase to 110mm (10mm more).		C	Glass Fiber	06	60 mm	0	0: ES does not apply	P	Flat Type
E	Ceramics			U	PU	08	80 mm	Terminals are 1.25 square			
F	Titanium Tube			S	Snake Tube	10	100 mm				
N	Special for MR			Lead wire type suitable for temperature PVC:0~100°C Teflon:-200~200°C Network Cable:0~400°C Glass Fiber:0~400°C		12	120 mm				
						15	150 mm				
						20	200 mm				
						25	250 mm				
						26	260 mm				
						30	300 mm				
						31	310 mm				
						35	350 mm				
						40	400 mm				
						4F	415 mm				
						50	500 mm				
						A0	1000 mm				
						A5	1500 mm				
						K0	2000 mm				
						K5	2500 mm				
						M3	3000 mm				
						M4	4000 mm				
						M5	5000 mm				
						M6	6000 mm				
						M9	9000 mm				
						M10	10000 mm				
						M11	11000 mm				
						M12	12000 mm				
						M13	13000 mm				
						M15	15000 mm				

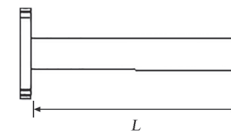
Protective Tube Ordering Information



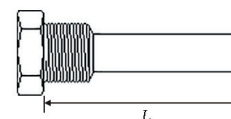
CODE	Type	CODE	Length	CODE	Diameter	CODE	Type	CODE	Type	CODE	Material
F	Flange	03	30 mm	95	9.5 mm	P1	3/4" PT	P1	3/4" PT	A	SUS304
S	Screw	04	40 mm	C	12.7 mm	P2	1/4" PT	P2	1/4" PT	B	SUS316
		05	50 mm			P3	3/8" PT	P3	3/8" PT	C	Teflon(Outer Coating)
		06	60 mm			P4	1/2" PT	P4	1/2" PT	D	Teflon(Whole)
		08	80 mm			P5	1/8" PT	P5	1/8" PT	E	Ceramics
		10	100 mm	3.2	9.5	N1	3/4" NPT	N1	3/4" NPT	F	Titanium Tube
		12	120 mm	4.8	9.5	N2	1/4" NPT	N2	1/4" NPT		
		15	150 mm	5	9.5	N3	3/8" NPT	N3	3/8" NPT		
		20	200 mm	6.4	9.5	N4	1/2" NPT	N4	1/2" NPT		
		25	250 mm	8	12.7	N	None	N	None		
		26	260 mm	9.5	12.7						
		30	300 mm	15	X						
		31	310 mm	17	X						
		35	350 mm	12.7	X						
		40	400 mm	The diameter of the sensor is 6.4 (inclusive) and the diameter of protective tube is 9.5.							
		4F	415 mm	The diameter of the sensor 8 and 9.5 are matched with the diameter of the protective tube 12.7.							
		50	500 mm	If the diameter of the sensor is 12.7 or more, diameter of protective tube cannot be equipped.							
		A0	1000 mm								
		A5	1500 mm								
		K0	2000 mm								
		K5	2500 mm								

When the sensor is equipped with a protective tube, the length of the tube is mainly a protective tube.
For example: The sensor tube is 100mm long and the protective tube is also 100mm. The protective tube is mainly 100mm, and the length of the sensor tube is automatically increased to 110mm (10mm more).

Flange Type:



Screw Type:



文件修改履歷		
日期	修正內容	版本
2015/11/10	選型多加一個P1 3/4" PT	1.0
2015/11/24	選型多加一個管徑R5	1.0
2015/12/03	選型多加一個管徑R95	1.0
2015/12/08	選型多加一個管長415mm	1.0
2015/12/31	選型多加一個管長260mm/310mm	1.0
2016/01/08	選型多加一F2/F4	1.0
2016/02/23	選型多加A0/160	1.0
2016/05/10	選型多加管徑10mm/N1	1.0
2016/05/16	Pt100溫度修改	1.1
2017/02/14	選型增加K0=2000mm 120=12mm P5=1/8"PT	1.2
2017/07/10	刪除規格選擇表L0L0，增加K5K5=2500mm	1.2
2018/05/01	選型多加管長50=500mm、35=350mm，Pt100Ω 等級改為DIN43760-79，選型固定螺牙P5移順序	1.3
2018/08/01	可調法蘭型、可調螺牙型圖片小L移除、固定法蘭、固定螺牙加小L1、經濟型、經濟彈簧型加小L2，規格選擇表刪除保護套管螺牙型式、PT100線徑除0.5其他刪除、刪除E和T的0.32線徑並新增適用感測器管徑，刪除線徑0.6，R、S Type溫度最大範圍改1600度，電器特性管徑刪除5.0、12.7mm，選型增加保護套管及說明、增加保護套管訂貨選型資料、感測器材質、出線材質、出線長度、出線端口封膠，新增感測元件線徑、管長、固定螺牙、接線盒備註，線徑刪除032、060、480、640、800，管徑刪除9、120、100，C改12.7mm並新增150、170，固定螺牙刪除F2、F4，刪除P.1經濟型，更改法蘭型、螺牙型圖片	1.4
2018/10/01	選型增加MR:圓形端子和出線方式、增加出線長度M3:3000m、M4:4000mm、出線材質增加U:PU線、保護套管管徑除9.5、12.7其他刪除，並增加感測器與保護套管管徑對應表格說明、出線端口封膠增加NA碼、螺牙增加尺寸(mm)	1.5
2018/10/09	選型管長增加80=800mm、螺牙M8=8mm、出線長度M5=5000mm	1.6
2018/11/27	增加出線長度 M6=6000、M9=9000、M10=10000、M11=11000、M12=12000、M13=13000mm	1.7
2018/12/24	感測器管長增加22:220mm，刪除螺牙(mm)內mm尺寸，並增加G3:3/8G、G4:1/2 G，出線材質增加S:蛇管，出線端口封膠新增碼0:不適用(ES無此選項)，線徑備註:PVC只有0.5mm可選	1.8
2019/05/08	選型出線端口封膠0描述改為ES不適用	1.8
2019/05/09	出線長度增加M15:15000mm	1.9
2019/07/04	修改SF圖片	1.9
2019/08/29	選型增加PA:Pt100 0~+200度，FC:5/16"細牙	2.0