

## Head Type Sheath Thermocouples

### Standard Head

#### ■ Select Basic Model Code

SH2	-	D1	A	0
①		②	③	④

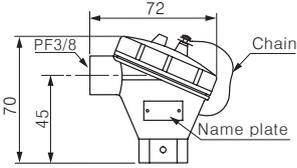
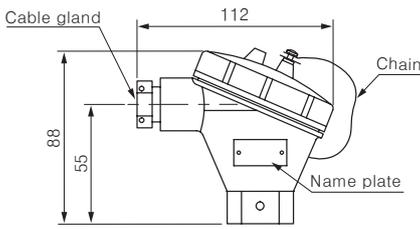
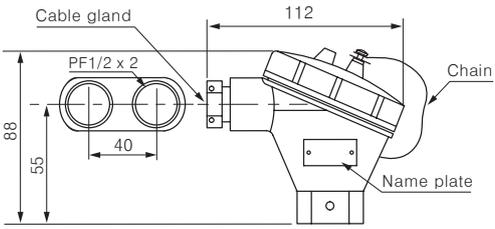
Item		Descriptions			
① Temperature sensor type		SH2	Head type Sheath thermocouples		
② Head type (Head material wireway standard)	Small standard head	C8	Aluminum PF3/8		
	Middle standard head	D1	Aluminum PF1/2	E2	Cast iron PF3/4
		D2	Aluminum PF3/4	F1	Stainless steel PF1/2
		E1	Cast iron PF1/2	F2	Stainless steel PF3/4
Middle 2-port standard head	G1	Aluminum PF1/2×2			
③ Sheath type	A	Standard	L	Compression Fitting	
	B	Slide Screwed	M	Flanged	
	C	Upper Slide Screwed	N	Slide Flanged	
	F	Nipple Screwed	P	Metal Support Flanged	
	G	Screwed	I	I Pad	
	H	Metal Support Screwed	R	R Pad	
	K	Nipple Union			
④ Sheath material*1	0	Metal	S	Metal (spring load)	

※ Do NOT combine the sheath type and sheath material arbitrarily. Refer to the "Select Sheath" description.

※ 1. For detailed sheath material, refer to the "Detailed specification" at "Ordering Code" description.

#### ■ Select Head

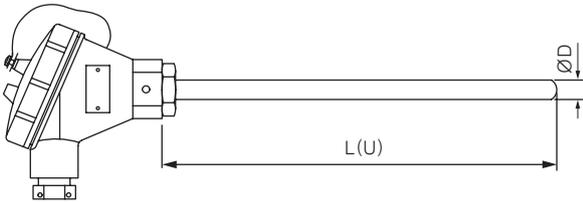
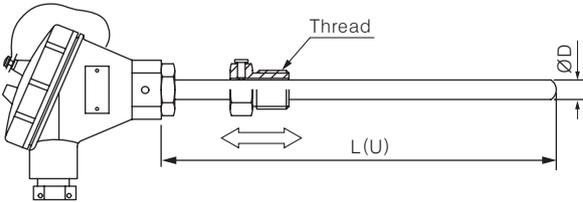
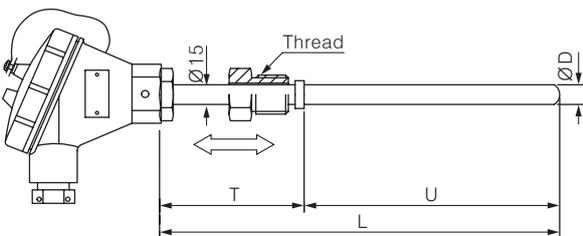
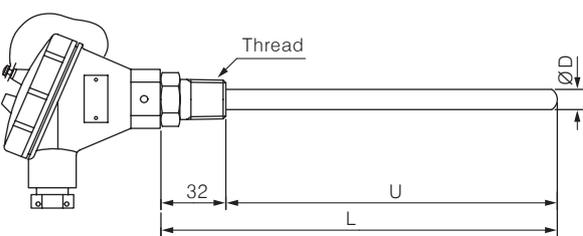
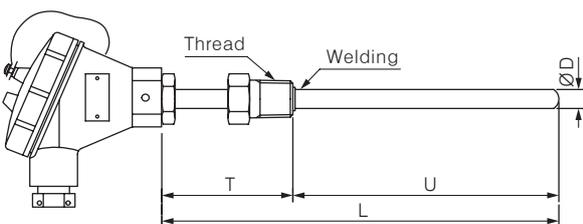
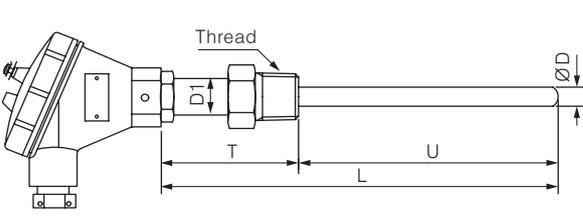
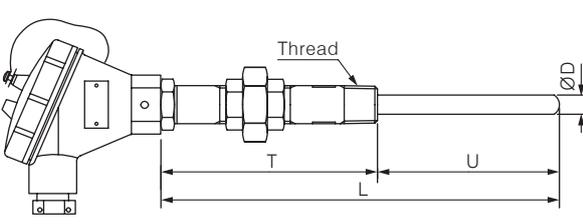
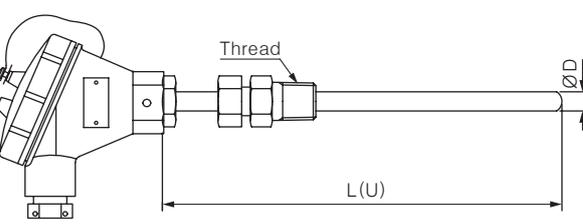
Select head material and wireway standard.

Small standard head	Middle standard head	Middle 2-port standard head
 <p>Material : Aluminum</p>	 <p>Material : Aluminum, Cast iron, Stainless steel</p>	 <p>Material : Aluminum</p>
<ul style="list-style-type: none"> <li>■ SH2-C8 □□</li> </ul>	<ul style="list-style-type: none"> <li>■ SH2-D1 □□</li> <li>■ SH2-D2 □□</li> <li>■ SH2-E1 □□</li> <li>■ SH2-E2 □□</li> <li>■ SH2-F1 □□</li> <li>■ SH2-F2 □□</li> </ul>	<ul style="list-style-type: none"> <li>■ SH2-G1 □□</li> </ul>

# Head Type Sheath Thermocouples

## ■ Select Sheath

Select sheath type and material.

<p><b>Standard : SH2-□□ A0</b></p> 	<p><b>Slide Screwed : SH2-□□ B0</b></p> 
<p><b>Upper Slide Screwed : SH2-□□ C0</b></p> 	<p><b>Nipple Screwed : SH2-□□ F0</b></p> 
<p><b>Screwed : SH2-□□ G0</b></p> 	<p><b>Metal Support Screwed : SH2-□□ H0 - □□ HS (spring load)</b></p> 
<p><b>Nipple Union : SH2-□□ K0 - □□ KS (spring load)</b></p> 	<p><b>Compression Fitting : SH2-□□ L0</b></p> 

# SH2 Series

Flanged : SH2-□□ M0	Slide Flanged : SH2-□□ N0
<p>Welding</p> <p>ØD</p> <p>T L U</p>	<p>ØD</p> <p>L(U)</p>
Metal Support Flanged : SH2-□□ P0	I PAD type : SH2-□□ I0
<p>Welding</p> <p>Welding</p> <p>ØD</p> <p>D T L U</p>	<p>L(U)</p>
R PAD type : SH2-□□ R0	
<p>L(U)</p> <p>R</p>	



# SH2 Series

## Explosion-proof Head

### ■ Select Basic Model Code

SH2	-	J1	A	0
①		②	③	④

Item		Descriptions			
① Temperature sensor type		SH2	Head type Sheath thermocouples		
② Head type (Head material wireway standard)	Middle explosion-proof head	H1	Aluminum PF1/2	I1	Stainless steel PF1/2
		H2	Aluminum PF3/4	I2	Stainless steel PF3/4
	Bidirectional explosion-proof head	J1	Aluminum PF1/2×2	J3	Aluminum PF1/2, PF3/4
J2		Aluminum PF3/4×2			
	Middle 2-port explosion-proof head	K1	Aluminum PF1/2×2		
③ Sheath type	A	Standard	L	Compression Fitting	
	B	Slide Screwed	M	Flanged	
	C	Upper Slide Screwed	N	Slide Flanged	
	F	Nipple Screwed	P	Metal Support Flanged	
	G	Screwed	I	I Pad	
	H	Metal Support Screwed	R	R Pad	
	K	Nipple Union			
④ Sheath material*1		0	Metal	S	Metal (spring load)

※ Do NOT combine the sheath type and sheath material arbitrarily. Refer to the "Select Sheath" description.

※ 1. For detailed sheath material, refer to the "Detailed specification" at "Ordering Code" description.

### ■ Select Head

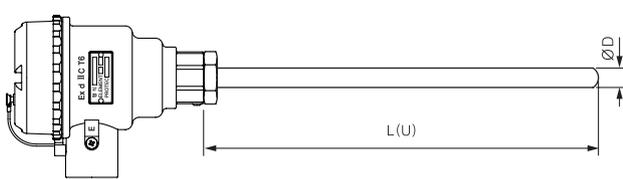
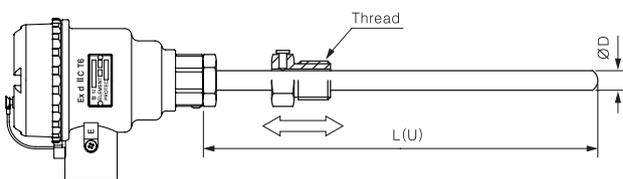
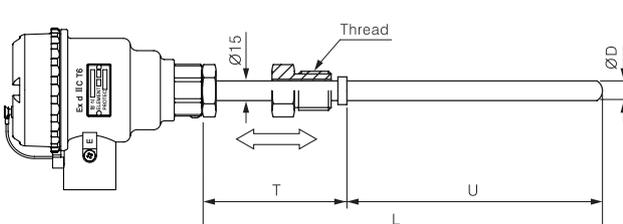
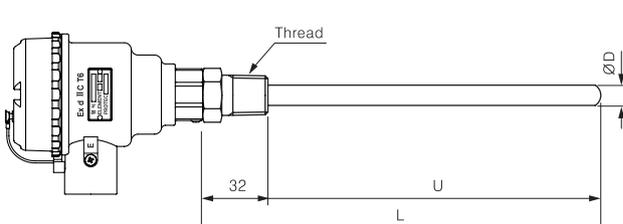
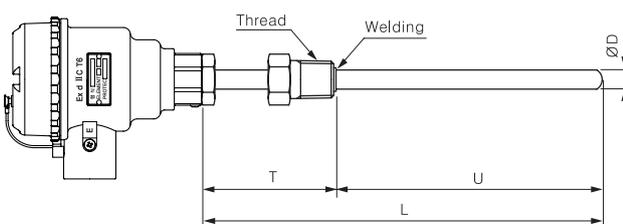
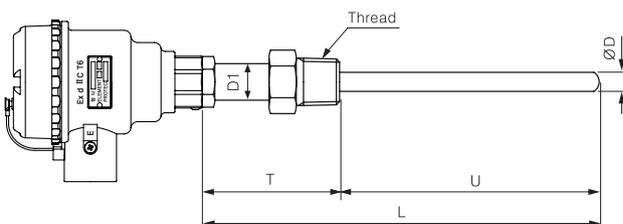
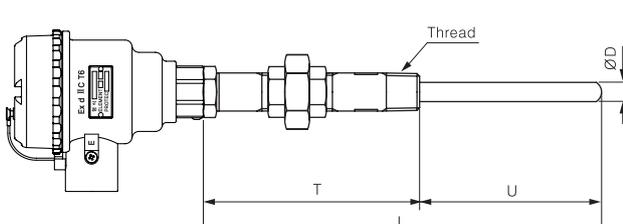
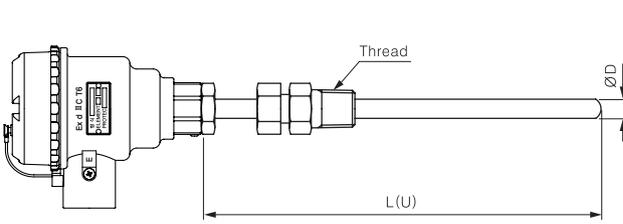
Select head material and wireway standard.

Middle explosion-proof head	Bidirectional explosion-proof head	Middle 2-port explosion-proof head
<p>Material : Aluminum, Stainless steel</p>	<p>Material : Aluminum</p>	<p>Material : Aluminum</p>
<ul style="list-style-type: none"> <li>■ SH2-H1 <input type="checkbox"/></li> <li>■ SH2-H2 <input type="checkbox"/></li> <li>■ SH2-I1 <input type="checkbox"/></li> <li>■ SH2-I2 <input type="checkbox"/></li> </ul>	<ul style="list-style-type: none"> <li>■ SH2-J1 <input type="checkbox"/></li> <li>■ SH2-J2 <input type="checkbox"/></li> <li>■ SH2-J3 <input type="checkbox"/></li> </ul>	<ul style="list-style-type: none"> <li>■ SH2-K1 <input type="checkbox"/></li> </ul>

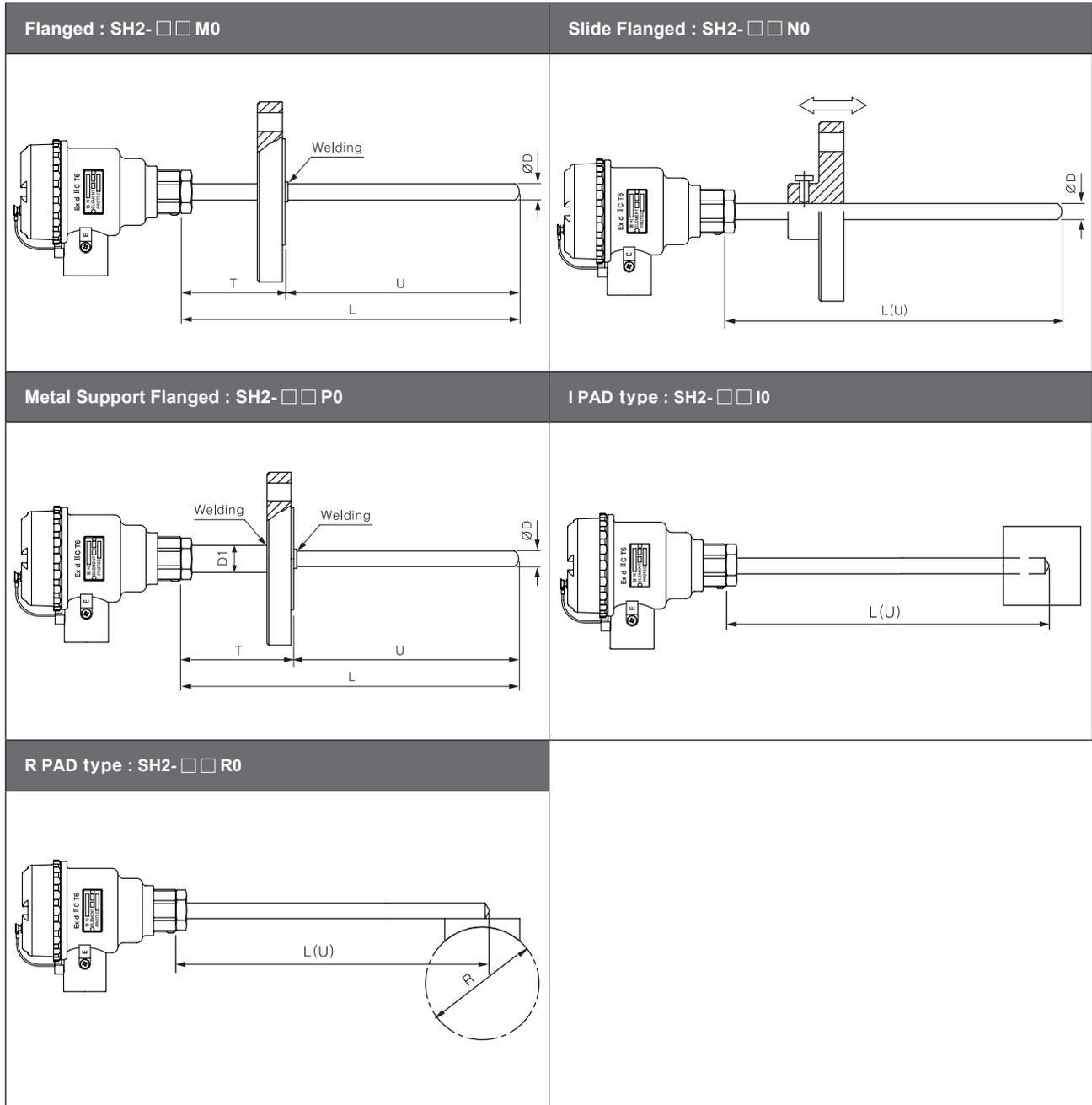
# Head Type Sheath Thermocouples

## ■ Select Sheath

Select sheath type and material.

<p><b>Standard : SH2-□□ A0</b></p> 	<p><b>Slide Screwed : SH2-□□ B0</b></p> 
<p><b>Upper Slide Screwed : SH2-□□ C0</b></p> 	<p><b>Nipple Screwed : SH2-□□ F0</b></p> 
<p><b>Screwed : SH2-□□ G0</b></p> 	<p><b>Metal Support Screwed : SH2-□□ H0</b></p> 
<p><b>Nipple Union : SH2-□□ K0</b></p> 	<p><b>Compression Fitting : SH2-□□ L0</b></p> 

# SH2 Series

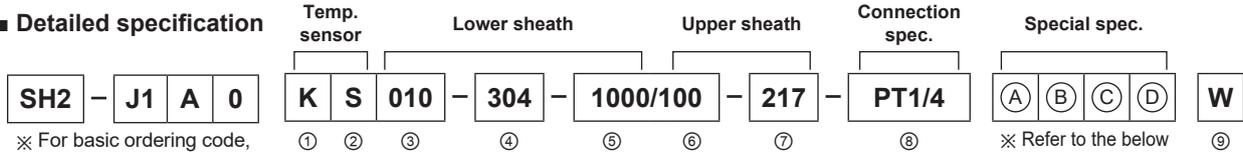


# Head Type Sheath Thermocouples

## Ordering Code

Order code is basic model code + detailed specification + special specification.

### Detailed specification



Item	Descriptions																		
① Temperature sensor	K, E, J, T, N																		
② Sensor elements	S	Single																	
	D	Double																	
③ Sheath thickness (ØD) ※1	010	Ø1.0																	
	016	Ø1.6																	
	023	Ø2.3																	
	032	Ø3.2																	
	048	Ø4.8																	
④ Sheath material ※1	316	316SS																	
	310	310SS																	
⑤ Lower sheath length (U) (mm)	Write directly (below 9999mm)																		
⑥ Upper sheath length (T) (mm) ※2, ※3	Metal	080	80mm																
		100	100mm																
		120	120mm																
⑦ Upper sheath thickness (ØD1) ※4	217	Ø21.7																	
	272	Ø27.2																	
⑧ Connection spec.	Screw spec.	Write the code referring F-88 to F-89 page of Reference.																	
		Write the ordering code + flange material referring F-90 to F-93 page of Reference.																	
	Flange spec.	※ Flange material <table border="1"> <tr> <td>304</td> <td>304SS</td> <td>316</td> <td>316SS</td> <td>36L</td> <td>316LSS</td> <td>310</td> <td>310SS</td> </tr> <tr> <td>446</td> <td>446SS</td> <td>50C</td> <td>50Co-30Cr</td> <td>INC</td> <td>Inconel 600</td> <td colspan="2"></td> </tr> </table>			304	304SS	316	316SS	36L	316LSS	310	310SS	446	446SS	50C	50Co-30Cr	INC	Inconel 600	
304	304SS	316	316SS	36L	316LSS	310	310SS												
446	446SS	50C	50Co-30Cr	INC	Inconel 600														
⑨ Set ordering	W	The last code should be adding "W" for ordering as a set with thermo well.																	

※ 1. The sheath thickness and material is decided according to the sensor elements. Refer to the below the sheath thickness and material by sensor elements.

※ 2. In case of non-upper length sheath (A0, B0, F0, L0, N0, I0, R0), write the code as "XXX".

※ 3. Sheath type is union: only 120mm, 150mm, 300mm available

※ 4. The upper thickness Ø15 of tube (sheath) is available only for tube type "C0".

### Sheath thickness and material by sensor elements

Sensor elements	Sheath thickness		Available sheath material			
	Code	Thickness	S	D	T	
S i n g l e	D o u b l e	010	Ø1.0	1	—	—
		016	Ø1.6	1	1	—
		023	Ø2.3	1	1	—
	T r i p l e	032	Ø3.2	2	1	1
		048	Ø4.8	2	2	1
		064	Ø6.4	2	2	1
		080	Ø8.0	2	2	1
		095	Ø9.5	2	2	2
		127	Ø12.7	2	2	2

Available sheath material	
1	Inconel 600, 310SS, 316SS
2	Inconel 600, 310SS, 316SS, 446SS

### Special specifications

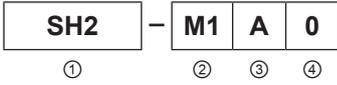
(A) : Hot junction type	U	Ungrounded (standard)	E	Exposed	G	Grounded
(B) : Sheath surface treatment	N	None	T	Teflon coating	L	Teflon lining
(C) : R size for special Pad type						
(D) : T (thickness) for special Pad type						

※ Special specifications is required infrequently in industrial site. Before ordering special specifications, please contact Autonics at first.

# SH2 Series

## Exposed Head

### ■ Select Basic Model Code



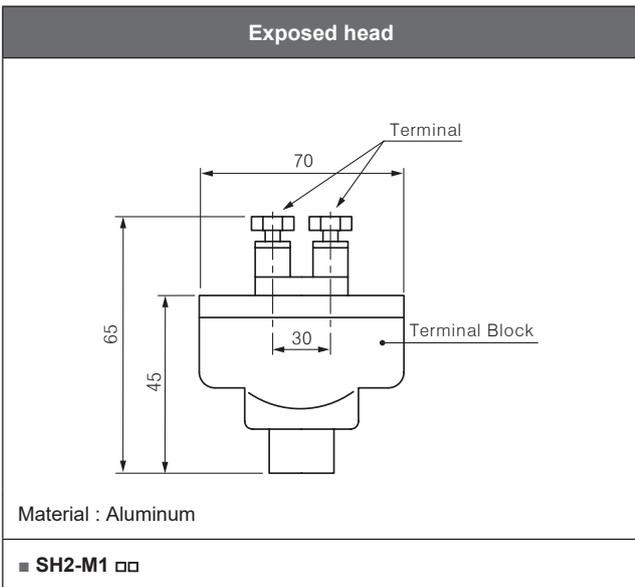
Item	Descriptions			
① Temperature sensor type	SH2	Head type Sheath thermocouples		
② Head material wireway standard	M1	Aluminum		
③ Sheath type	A	Standard	L	Compression Fitting
	B	Slide Screwed	M	Flanged
	C	Upper Slide Screwed	N	Slide Flanged
	F	Nipple Screwed	P	Metal Support Flanged
	G	Screwed	I	I Pad
	H	Metal Support Screwed	R	R Pad
	K	Nipple Union		
④ Sheath material*1	0	Metal	S	Metal (spring load)

※ Do NOT combine the sheath type and sheath material arbitrarily. Refer to the "Select Sheath" description.

※ 1. For detailed sheath material, refer to the "Detailed specification" at "Ordering Code" description.

### ■ Select Head

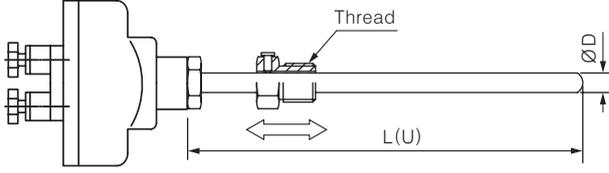
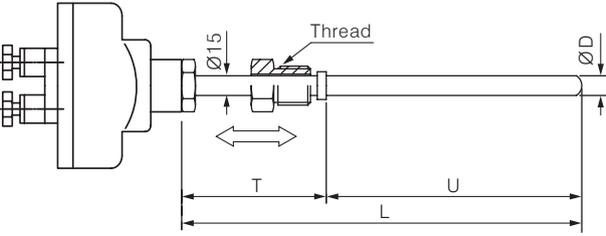
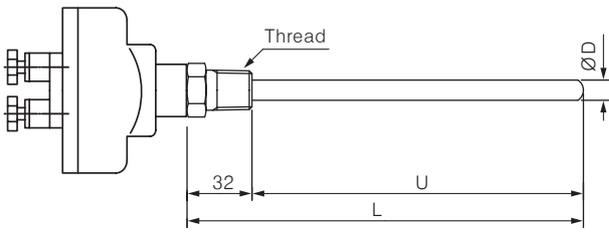
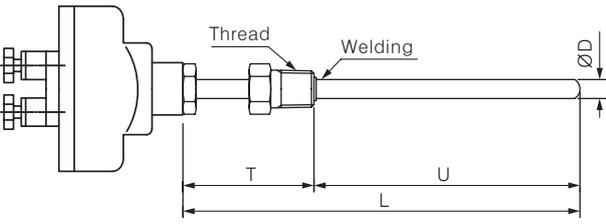
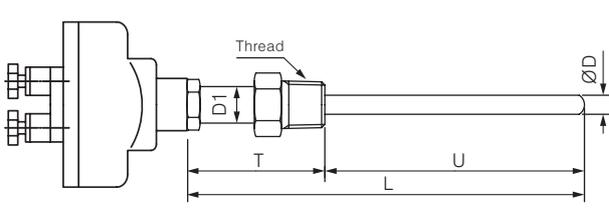
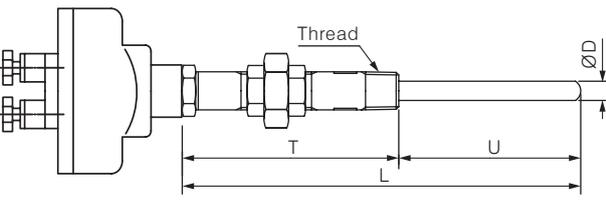
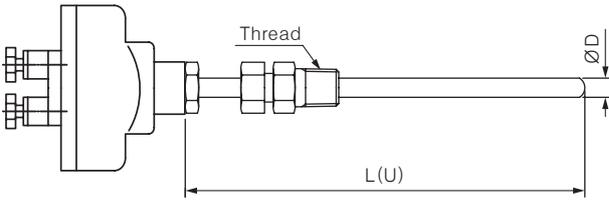
Select head material and wireway standard.



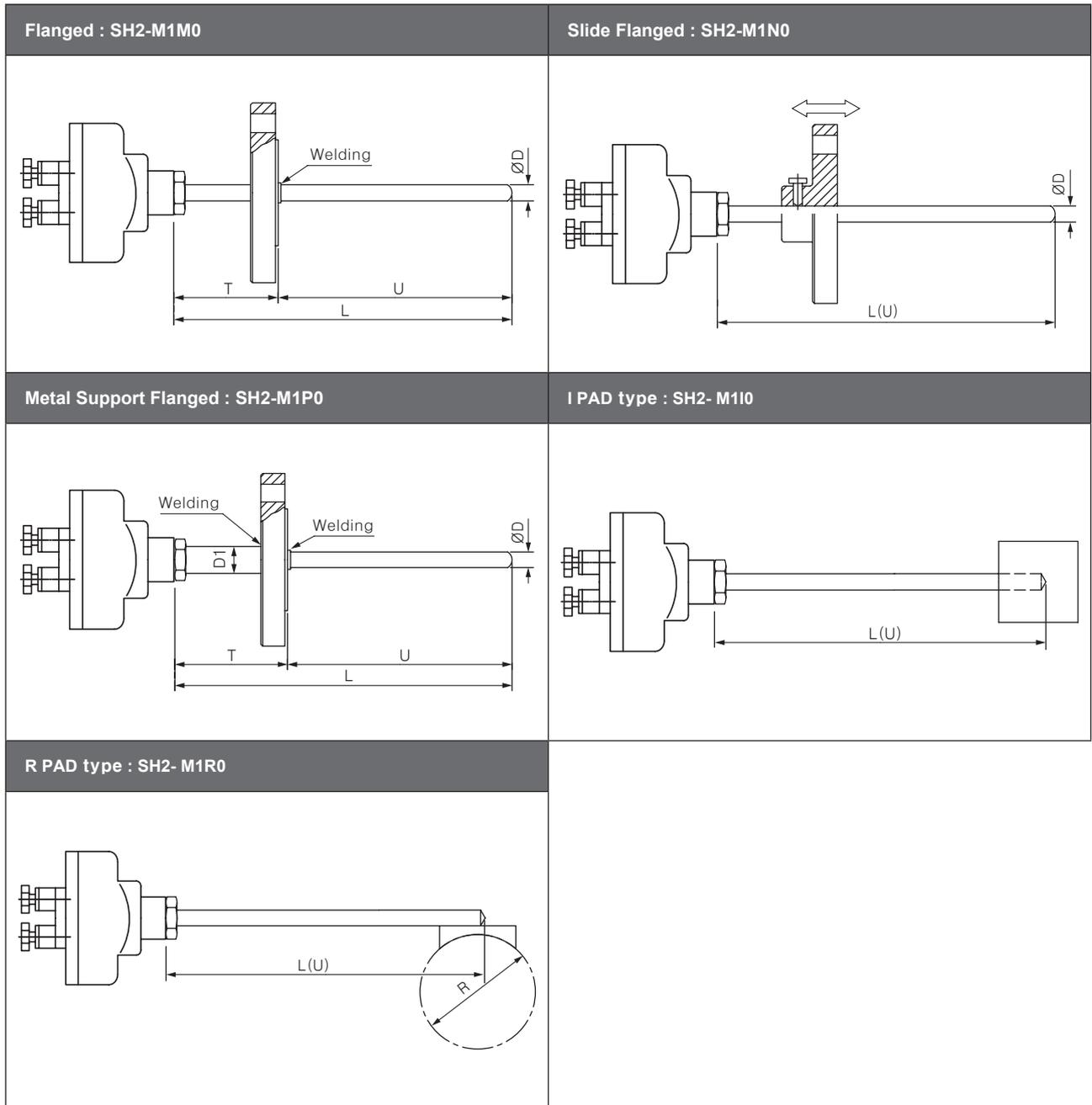
# Head Type Sheath Thermocouples

## ■ Select Sheath

Select sheath type and material.

<p><b>Standard : SH2-M1A0</b></p>	<p><b>Slide Screwed : SH2-M1B0</b></p>
	
<p><b>Upper Slide Screwed : SH2-M1C0</b></p>	<p><b>Nipple Screwed : SH2-M1F0</b></p>
	
<p><b>Screwed : SH2-M1G0</b></p>	<p><b>Metal Support Screwed : SH2-M1H0 -M1HS (spring load)</b></p>
	
<p><b>Nipple Union : SH2-M1K0</b></p>	<p><b>Compression Fitting : SH2-M1L0</b></p>
	

# SH2 Series



# Head Type Sheath Thermocouples

## Ordering Code

Order code is basic model code + detailed specification + special specification.

### Detailed specification

<b>SH2</b>	-	<b>M1</b>	<b>A</b>	<b>0</b>	<b>K</b>	<b>S</b>	<b>010</b>	-	<b>304</b>	-	<b>1000/100</b>	-	<b>217</b>	-	<b>PT1/4</b>	(A)	(B)	(C)	(D)	<b>W</b>
					①	②	③			④	⑤	⑥	⑦	⑧		⑨				

※ For basic ordering code, refer to appearance or  
 Select Basic Code.

※ Refer to the below

Item	Descriptions							
① Temperature sensor	K, E, J, T, N							
② Sensor elements	S	Single	T	Triple				
	D	Double						
③ Sheath thickness (ØD) ※1	010	Ø1.0	064	Ø6.4				
	016	Ø1.6	080	Ø8.0				
	023	Ø2.3	095	Ø9.5				
	032	Ø3.2	127	Ø12.7				
	048	Ø4.8						
④ Sheath material ※1	316	316SS	446	446SS				
	310	310SS	INC	Inconel 600				
⑤ Lower sheath length (U) (mm)	Write directly (below 9999mm)							
⑥ Upper sheath length (T) (mm) ※2, ※3	Metal	080	80mm	150	150mm			
		100	100mm	300	300mm			
		120	120mm					
⑦ Upper sheath thickness (ØD1) ※4	217	Ø21.7	150	Ø15				
	272	Ø27.2						
⑧ Connection spec.	Screw spec.	Write the code referring F-88 to F-89 page of Reference.						
		Write the ordering code + flange material referring F-90 to F-93 page of Reference.						
	Flange spec.	※ Flange material						
304		304SS	316	316SS	36L	316LSS	310	310SS
		446	446SS	50C	50Co-30Cr	INC	Inconel 600	
⑨ Set ordering	W	The last code should be adding "W" for ordering as a set with thermo well.						

※ 1. The sheath thickness and material is decided according to the sensor elements. Refer to the below the sheath thickness and material by sensor elements.

※ 2. In case of non-upper length sheath (A0, B0, F0, L0, N0, I0, R0), write the code as "XXX".

※ 3. Sheath type is union: only 120mm, 150mm, 300mm available

※ 4. The upper thickness Ø15 of sheath is available only for sheath type "C0".

### Sheath thickness and material by sensor elements

Sensor elements	Sheath thickness		Available sheath material				
	Code	Thickness	S	D	T		
S i n g l e	D o u b l e	T r i p l e	010	Ø1.0	1	—	—
			016	Ø1.6	1	1	—
			023	Ø2.3	1	1	—
			032	Ø3.2	2	1	1
			048	Ø4.8	2	2	1
			064	Ø6.4	2	2	1
			080	Ø8.0	2	2	1
			095	Ø9.5	2	2	2
			127	Ø12.7	2	2	2

Available sheath material	
1	Inconel 600, 310SS, 316SS
2	Inconel 600, 310SS, 316SS, 446SS

### Special specifications

(A) : Hot junction type	U	Ungrounded (standard)	E	Exposed	G	Grounded
(B) : Sheath surface treatment	N	None	T	Teflon coating	L	Teflon lining
(C) : R size for special Pad type						
(D) : T (thickness) for special Pad type						

※ Special specifications is required infrequently in industrial site. Before ordering special specifications, please contact Autonics at first.