

# Sanitary Sensor

## Description

### Ferrule (Cap) Type

- It is a sensor that uses a sanitary clamp joint, which is generally used as the joint for bio-, medical-, and food-related equipment.
- A term used in piping terminology, a type of (quick) coupling that connects piping.
- It is the name of the fixed flange that will be welded to the temperature sensor with argon gas arc welding (ferrule cap).
- It is the name of the flange with a groove that can be locked in with the clamp band.



Ferrule Cap Type



Liner Cap Type

### Liner (Cap) Type

- It is a sensor that uses a sanitary fixed flange and movable screw to be combined (connected) with the pipe as the joint for bio-, medical-, and food-related equipment.
- A term used in piping terminology, a type of (quick) coupling that connects piping.
- It is the name of the fixed flange that will be welded to the temperature sensor with argon gas arc welding (liner cap).
- It is the name of the flange with a groove that can be locked in with the movable hexagon nut.



Ferrule Cap Type



Liner Cap Type

## Features

- It is a sensor that is designed to meet hygienical (sanitary) requirements.
- ① Washable ② Easy to maintain and inspect ③ Sanitary treatment (polish finishing) on a portion that will be contacted with the product
- ④ Rustproof, meets the requirement of mirror plane treatment on a surface, and others.

## Purpose

- It is a temperature sensor that meets the sanitary (hygienical) requirements of the food and beverage industry.
- It is used at a place where measuring section will be contacted directly with the food product.
- It is used for the food and beverage manufacturing equipment, such as canned food products, retort food, drinking water, and dairy products.
- Beverage manufacturing plants, food manufacturing plants, dairy product manufacturing plants, compression equipment, and others.

## Ordering Information

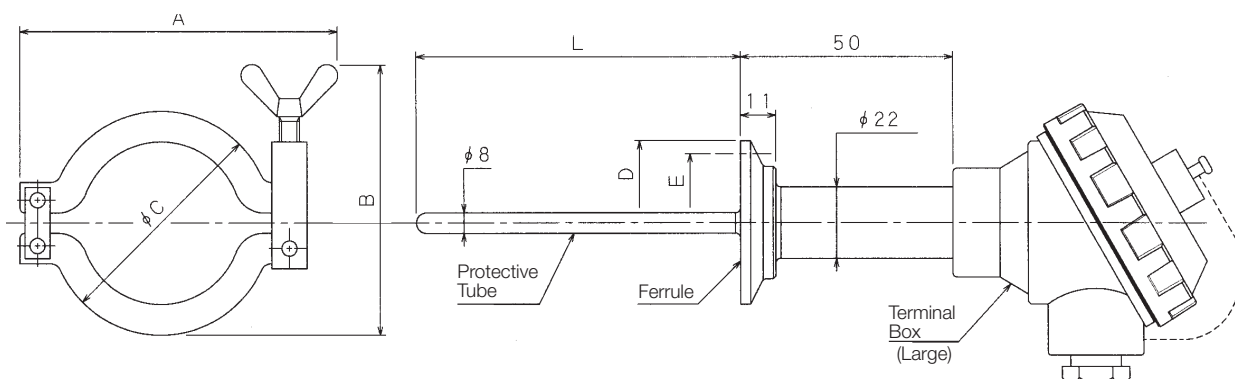
(Example of Part Number) Ferrule cap type, large size, K thermocouple (class 2), double element, outside diameter of protective tube =  $\phi 8$ , length of protective tube = 100mm, 50mm, size of cap = 8A

**HB-ALK1D-8x100x50H1NNN**

Model	Terminal Box	Type of Element	Class	No. of Elements	Size of Protective Tube	Length of Protective Tube L1	Length of Protective Tube L2	Size of Cap	Surface Treatment 1	Surface Treatment 2	Accessory
HB-A Ferrule Cap Type	L Large	Thermocouple	1 Class 1	S Single	8 $\phi 8$	100 100mm	50 50mm	Ferrule	N None	N None	N None
HB-B Liner Cap Type	S Small	K JIS K	2 Class 2	D Double		150 150mm		H1 8A	4 #400	D Electropolishing (corrosiveness)	A Mill Sheet
		Resistance Temperature Detector				200 200mm		H2 10A		H Passivation	B Electropolishing Certificate
		PT Pt100	A Class A			250 250mm		H3 15A			C Written Result of Final Inspection Report
			B Class B					H4 1S			
								H5 1.5S			
								H6 2S			
								H7 2.5S			
								H8 3S			
								H9 3.5S			
								H10 4S			
								Liner			
								R1 1S			
								R2 1.5S			
								R3 2S			
								R4 2.5S			
								R5 3S			

- Please contact our sales office for sensors other than the above.
- Please contact our sales office for the issuance of temperature calibration certificate.
- The material of the protective tube is SUS316L.

## ● Heavy Clamp and Ferrule



※ Dimension of heavy clamp varies depending on the size of the ferrule. ※ We can also manufacture small-size terminal box. Please contact us for details.

Table of Types

Model	L Dimension (mm)	Ferrule Size	Specifications (Resistance Temperature Detector)
HB-1	100	Select from the table	Resistance Value 100(at 0°C)
HB-2	150		Specified Current 2mA
HB-3	200		Class Class B
HB-4	250		Lead Wire Type Three-wire Type
			Service Temp. Range -100°C~200°C

● Please specify the size of ferrule based on the table shown on the right upon placing an order.

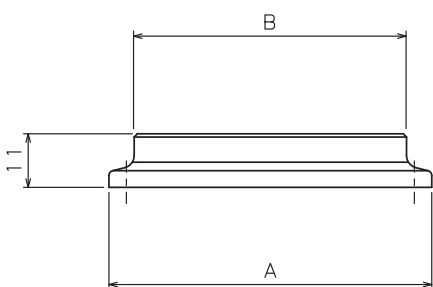
Table of Dimensions of Heavy Clamp

TYPE	A	B	φ C
1.5S	98	94	65
2S	113	93	75
2.5S	135	102	88
3S	148	112	106
4S	182	133	131

Table of Dimensions of Ferrule

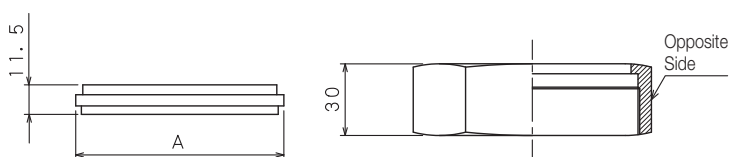
Size	D	E
8A	34	27.5
10A	34	27.5
15A	34	27.5
1S	50.5	43.5
1.5S	50.5	43.5
2S	64.0	56.5
2.5S	77.5	70.5
3S	91.0	83.5
3.5S	106.0	97.0
4S	119.0	110.0

## ● Ferrule (Cap) Type



Ferrule	Model	A	B
8A	H1	34	21.7
10A	H2	34	21.7
15A	H3	34	21.7
1.0S	H4	50.5	38.1
1.5S	H5	50.5	38.1
2.0S	H6	64	50.8
2.5S	H7	77.5	63.5
3.0S	H8	91	76.3
3.5S	H9	106	89.1
4.0S	H10	119	101.6

## ● Liner (Cap) Type



Size	Model	Liner Cap	Hexagon Nut	
		A	Opposite Side (Small)	Opposite Side (Large)
1.0S	R1	33.8	-	46
1.5S	R2	47	56	61
2.0S	R3	60.5	71	76
2.5S	R4	74	85	91
3.0S	R5	87.5	100	106.5