

Temperature Sensors (General-Purpose Sheathed Thermocouple with Terminal Box) | YYF Series

The sheath-type thermocouple temperature sensors in the YYF series are suitable for applications that require measurement in a wide range of temperatures with fast response time.



Note: The model in the photograph is YYF1.

Specifications

Standards compliance	JIS C 1605
Thermocouple type	K, J, E, T
Tolerance	Class 2, class 1
Temperature measuring junction	Not grounded
Protection tube material	ASTM 316L (equiv. to SUS316L)
Measurement range	See Table 1.
Terminal ambient temperature	Room temperature to 90 °C
Sheath pressure resistance	1 MPa
Minimum bend radius	2 times the sheath outer diameter

Table 1. Measurement range

Thermocouple type	Sheath outer diameter			
	φ3.2 mm	φ4.8 mm	φ6.4 mm	φ8.0 mm
K	-40 to +750 °C	-40 to +800 °C	-40 to +800 °C	-40 to +900 °C
J	0 to 650 °C	0 to 750 °C	0 to 750 °C	0 to 750 °C
E	-40 to +750 °C	-40 to +800 °C	-40 to +800 °C	-40 to +800 °C
T	-40 to +350 °C	-40 to +350 °C	-40 to +350 °C	-40 to +350 °C

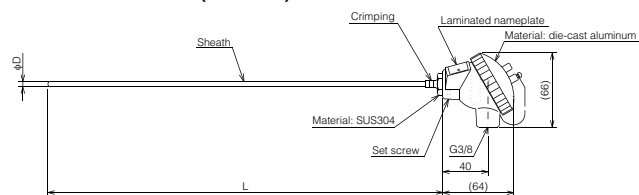
Straight type

Model No. configuration

Ex.: YYF1K3220000000

Basic model No.	Sensor type	Protection tube outer diameter (mm), φD	Protection tube length (mm), L	Option	Tolerance class & inspection results	Remarks
YYF1						Single element
YYF4						Double element
	K					K thermocouple
	J					J thermocouple
	E					E thermocouple
	T					T thermocouple
		32 (φ3.2 mm)				
		48 (φ4.8 mm)				
		64 (φ6.4 mm)				
		80 (φ8.0 mm)				
			050 (50 mm)			Length is freely selectable from 50 to 1,500 mm Increments: Less than 1,000 mm: 1 mm 1,000 mm or more: 10 mm
			100 (100 mm)			
			150 (150 mm)			
			200 (200 mm)			
			350 (350 mm)			
			500 (500 mm)			
			750 (750 mm)			
			A00 (1,000 mm)			
			A50 (1,500 mm)			
				00000		None
				0		Class 2 without inspection results
				D		Class 2 with inspection results
				Y		Class 2 with JCSS certificate
				1		Class 1 without inspection results
				E		Class 1 with inspection results
				W		Class 1 with JCSS certificate

External dimensions (unit: mm)



Note: Recalibration is available for temperature sensors whose protection tube is 350 mm in length or longer.
•Other shapes are also available.

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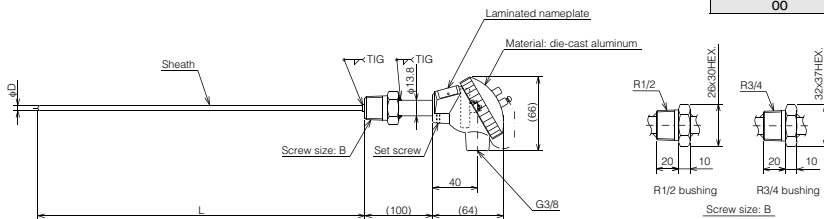
Screw-mounting type

Model No. configuration

Ex.: YYF2K32200B12000

Basic model No.	Sensor type	Protection tube outer diameter (mm), φD	Protection tube length (mm), L	Screw (screw size)	Option	Tolerance class & inspection results	Remarks
YYF2							Single element
YYF5							Double element
	K						K thermocouple
	J						J thermocouple
	E						E thermocouple
	T						T thermocouple
		32 (φ3.2 mm)					
		48 (φ4.8 mm)					
		64 (φ6.4 mm)					
		80 (φ8.0 mm)					
			050 (50 mm)				Length is freely selectable from 50 to 1,500 mm Increments: Less than 1,000 mm: 1 mm 1,000 mm or more: 10 mm
			100 (100 mm)				
			150 (150 mm)				
			200 (200 mm)				
			350 (350 mm)				
			500 (500 mm)				
			750 (750 mm)				
			A00 (1,000 mm)				
			A50 (1,500 mm)				
				B12 (R1/2)			
				B34 (R3/4)			
					00		None
						0	Class 2 without inspection results
						D	Class 2 with inspection results
						Y	Class 2 with JCSS certificate
						1	Class 1 without inspection results
						E	Class 1 with inspection results
						W	Class 1 with JCSS certificate

External dimensions (unit: mm)



Note: Recalibration is available for temperature sensors whose protection tube is 350 mm in length or longer.
•Other shapes are also available.

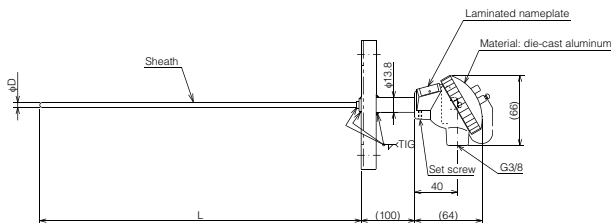
Flange type

Model No. configuration

Ex.: YYF3K32200B1F000

Basic model No.	Sensor type	Protection tube outer diameter (mm), φD	Protection tube length (mm), L	Flange type	Flange seating face	Option	Tolerance class & inspection results	Remarks
YYF3								Single element
YYF6								Double element
	K							K thermocouple
	J							J thermocouple
	E							E thermocouple
	T							T thermocouple
		32 (φ3.2 mm)						
		48 (φ4.8 mm)						
		64 (φ6.4 mm)						
		80 (φ8.0 mm)						
			050 (50 mm)					Length is freely selectable from 50 to 1,500 mm Increments: Less than 1,000 mm: 1 mm 1,000 mm or more: 10 mm
			100 (100 mm)					
			150 (150 mm)					
			200 (200 mm)					
			350 (350 mm)					
			500 (500 mm)					
			750 (750 mm)					
			A00 (1,000 mm)					
			A50 (1,500 mm)					
				A0				
				A1				JIS standard: 5 K 15 A
				A2				JIS standard: 5 K 20 A
				A3				JIS standard: 5 K 25 A
				A4				JIS standard: 5 K 32 A
				A5				JIS standard: 5 K 40 A
				A6				JIS standard: 5 K 50 A
				B0				JIS standard: 10 K 10 A
				B1				JIS standard: 10 K 15 A
				B2				JIS standard: 10 K 20 A
				B3				JIS standard: 10 K 25 A
				B4				JIS standard: 10 K 32 A
				B5				JIS standard: 10 K 40 A
				B6				JIS standard: 10 K 50 A
					F			Flat type
					R			Rib type
						00		None
							0	Class 2 without inspection results
							D	Class 2 with inspection results
							Y	Class 2 with JCSS certificate
							1	Class 1 without inspection results
							E	Class 1 with inspection results
							W	Class 1 with JCSS certificate

External dimensions (unit: mm)



For the shape of the flange, see page 6-24.

Note: Recalibration is available for temperature sensors whose protection tube is 350 mm in length or longer.
•Other shapes are also available.