

# Temperature Sensors

Screw Mount / Screw Mount Type for Moving Parts / Band Type

**Temperature Sensors – Screw Mount Type**

**MSNDM K Thermocouple**

**MSNDM**

Type of Thermocouple	K Thermocouple
Precision	JIS Class 2
Temp. Measurement Contact Point	Grounded Type
Temp. Measurement Range	0~300°C
Material	(No.6-1, 8-1): C3604 Brass (JIS) (No.6, 8): 304 Stainless Steel
Lead Wire (Operating Temp. Range)	Fiberglass Wool Shield + Outer Shield Winding (0~180°C)

Ⓢ For No.6-1 and 8-1, enamel wire is wound at the end of sleeve. **Features:** Easily attachable by cutting a tap on the heated object.

Type	Part Number	No.	Thread Size M	F (m)	A	b	d	T	H
MSNDM	6-1	6	M6 x 1.0	1	2.8	4	3.8	4	10
	6	6	M6 x 1.0	2	4.5	4	3.5	4	10
	6-5	6	M6 x 1.0	5	2.8	4	3.8	4	10
	8-1	8	M8 x 1.25	1	2.8	4	3.8	5.3	13
8	8	M8 x 1.25	2	4.5	4	3.5	5.3	13	

**Part Number Example**  
MSNDM6

**Temperature Sensors – Screw Mount Type for Moving Parts**

**MFNC K Thermocouple**

**MFNC**

Type of Thermocouple	K Thermocouple
Precision	JIS Class 2
Temp. Measurement Contact Point	Grounded Type
Temp. Measurement Range	0~300°C
Material	304 Stainless Steel
Lead Wire (Operating Temp. Range)	Silicon Coating (0~150°C)
Lead Wire Minimum Bending R	20

**Features:** Highly flexible silicon covered lead wire is usable in bending applications. (Avoid excessive bending.)

Type	Part Number	No.	Thread Size M
MFNC	6	6	M6 x 1.0



**Part Number Example**  
MFNC6

**Temperature Sensors – Band Type**

**MSNBD K Thermocouple**

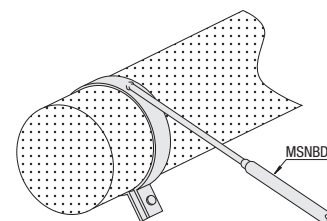
**MSNBD**

Type of Thermocouple	K Thermocouple
Precision	JIS Class 2
Temp. Measurement Contact Point	Grounded Type
Temp. Measurement Range	0~300°C
Material	Protection Tubes: 304 Stainless Steel Mounting Band: 304 Stainless Steel Tightening Bolt: 304 Stainless Steel Nut: 304 Stainless Steel
Lead Wire (Operating Temp. Range)	Glass Wool Coating + Outer Shield Winding (0~250°C)

**Features:** Effective in measuring cylindrical heated objects.

Type	Part Number	D
MSNBD	30	30
	35	35
	40	40

**Application Example**  
Used to heat the cylindrical heated object.



Ⓢ Please refer to "Precautions for Use" in the Temperature Sensor Guide on P.3756.

**Part Number Example**  
MSNBD30

# Temperature Sensors

Spring Contact / Surface Temperature Measurement / Surface Temperature Measurement Magnet Type

**Temperature Sensors – Spring Contact Type**

**MSNBB K Thermocouple**

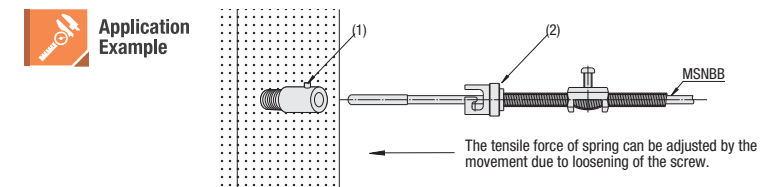
**MSNBB**

Type of Thermocouple	K Thermocouple
Precision	JIS Class 2
Temp. Measurement Contact Point	Isolated Neutral Type
Temp. Measurement Range	0~300°C
Material	Sheath: 304 Stainless Steel Spring: 304 Stainless Steel Fitting Metal: Brass + Nickel Plating
Lead Wire (Operating Temp. Range)	Glass Wool Coating + Outer Shield Winding (0~250°C)

**Features:** The power of spring enables the tip part of protection pipe to reliably contact heated objects.

Type	Part Number
MSNBB	4.8

**How to Use**  
Cut a RC(PT) 1/8 tap in the heated object, and fix the (1).  
Insert the sensor and hook (2) catch on the protuberance of (1).  
The temperature can be measured stably by adhering the tip of sensor to the measuring position of the heated object.



**Temperature Sensors – Surface Temperature Measurement Type**

**MFEK K Thermocouple**

**MFEK / MFEP**

Type of Thermocouple	K Thermocouple	—
Type of Device	—	Pt100Ω
Precision	JIS Class 2	JIS Class B
Temp. Measurement Contact Point	Isolated Neutral Type	—
Lead Type	—	3-lead Type
Temperature Measurement Range	0~150°C	-50~150°C
Material	Metallic Head: Brass + Nickel Plating	—
Heat Resistance Temp. of Silicon Tube	150°C	—
Lead Wire (Operating Temp. Range)	Silicon Rubber Film (-50~150°C)	—

**MFEF Temperature Measuring Resistor Pt100Ω**

**Temperature Sensors – Surface Temperature Measurement Magnet Type**

**MMGK K Thermocouple**

**MMGK**

Type of Thermocouple	K Thermocouple
Precision	JIS Class 2
Temp. Measurement Contact Point	Grounded Type
Temperature Measurement Range	0~150°C
Material	Hollow: 304 Stainless Steel
Lead Wire (Operating Temp. Range)	Teflon Coating (0~150°C)
Material	Magnet: Neodymium Magnet + Nickel Plating
Pull Force N (kgf)	Ambient Temp.: 17.7 (1.8) 120°C: 15.7 (1.6)
Surface Magnetic Flux Density Gauss [G]	Ambient Temp.: 3600 120°C: 3200

Ⓢ Pull Force and Surface Flux Density are for magnet alone (reference values).

**Part Number Example**  
MSNBB4.8  
MFEK  
MMGK

Ⓢ Please refer to "Precautions for Use" in the Temperature Sensor Guide on P.3756.