

Temperature Sensors

Connector Type, Double Element, Chemical Resistant

⚠ Be sure to refer to "Precautions for Use" in the Temperature Sensor Overview on P.1653.

Connector Type

RoHS 10

MCNF (Sheath Side K Thermocouple)

MCNM (Lead Side)

Features: Suitable to use in a place where removing of sheath is difficult since replacement of lead wire is only required when the wire is broken.

MCNF, MCNM	
Type of Thermocouple	K Thermocouple
Precision	JIS Class 2
Temperature Measurement Contact Point	Isolated Neutral Type
Temperature Measurement Range	0 ~ 650°C
Temperature Measurement Range	0 ~ 750°C
Material	Sheath
	SUS316
Connector	PPS
Heat Resistance Temperature of Connector	220°C
Lead Wire (Operating Temp. Range)	Glass Wool Coating (0~150°C)

Sheath Side (K Thermocouple)			Lead Side		
Part Number	Unit Price	L Selection	Part Number	F Selection (Unit: m)	Unit Price
Type	D		L300	L500	F2
MCNF	1.6	300	MCNM	2	
	3.2	500		4	

Double Element

RoHS 10

MSWK (K Thermocouple)

Features: Temperature measurements can be connected to two indicators, controllers, etc. Since the temperature always indicates synchronicity, one can be used for temperature control and the other for detecting abnormal high temperature.

MSWK	
Type of Thermocouple	K Thermocouple
Precision	JIS Class 2
Temperature Measurement Contact Point	Isolated Neutral Type
Temperature Measurement Range	0 ~ 750°C
Temperature Measurement Range	0 ~ 800°C
Material	Sheath
	SUS316
Sleeve	SUS304
Heat Resistance Temperature of Sleeve	80°C
Lead Wire (Operating Temp. Range)	Vinyl Coating (-20~70°C)

Part Number		L Selection	Unit Price		
Type	D		L100	L200	L300
MSWK	3.2	100			
		200			
	4.8	300			

Chemical Resistant

RoHS 10

MFLS (K Thermocouple)

Features: Sheath is coated with Fluororesin (FEP) tube, and excels in chemical resistance and corrosion resistance.

MFLS	
Type of Thermocouple	K Thermocouple
Precision	JIS Class 2
Temperature Measurement Contact Point	Isolated Neutral Type
Temperature Measurement Range	0 ~ 180°C
Material	Protection Tubes
	Sheath SUS316 + Fluororesin (FEP) Tube
Sleeve	SUS304
Heat Resistance Temperature of Sleeve	80°C
Lead Wire (Operating Temp. Range)	Vinyl Coating (-20~70°C)

Part Number		L Selection	Unit Price	
Type	D		L200	L400
MFLS	5.3	200		
		400		

Chemical Resistance (Reference) of Fluororesin (FEP) Tube Coating
 The list below is for reference only and not a product guarantee.

Mineral Oil	Water	Hydrochloric Acid (10%, RT)	Ammonia Water	Gasoline	Organic Solvent
○	○	○	○	○	○

○= Excellent. Little affected.
 ○= Good. Affected or swollen to some extent but usable depending on conditions.
 (RT is for room temperature=20°C, % is concentration of solution.)

Ordering Example

Part Number	-	L
MSWK3.2	-	100
MFLS5.3	-	200
Part Number	-	F
MCNM	-	F2

⚠ The upper limit of temperature measurement is at the measurement point (the tip of sheath). When measuring, keep the sleeve temperature at or below the heat resistance temperature (80°C). The wire may break due to heat expansion of the sleeve. Especially when a heated object temperature exceeds 100°C, a long type of sheath L length is recommended, which is used to put maximum distance between the sleeve and the heated object, or Temperature Sensors, Heat Resistant Type (P.1656) is recommended.