

Model U series

General Moving / Rotating Surface Probes

U模式系列

U模式系列产品是将感应器与测试面的摩擦系数降至最小极限的温度感应器，适用于移动或旋转表面的温度测试。

通过对各个规格的组件进行重新组合的方式，可以按照客户的使用需求进行选配。

Model U series probes offer minimal coefficient of friction between the sensor and measuring surface, making them ideal for measuring the temperatures of moving or rotating surfaces.

Specific components may be combined to customize products for the needs of a customer's specific application.

モデルUシリーズは、センサと測定面との摩擦係数を極限まで小さくした、移動または回転する表面の温度測定に適した温度センサです。

各パーツの仕様を組み合わせる事により、お客様の用途に合わせてカスタマイズする事が出来ます。

Typical probes of U series

Type K Model U-111K-00-D0-1-TC1-ANP
Type E Model U-111E-00-D0-1-TC1-ANP

Temp. range	Tolerance	Response time	Durability
-50~250°C	±2.5°C (at 100°C surface)	2.0 s	A

Type K Model U-211K-00-D0-1-TC1-ANP
Type E Model U-211E-00-D0-1-TC1-ANP

Temp. range	Tolerance	Response time	Durability
-50~250°C	±2.5°C (at 100°C surface)	3.5 s	A

Type K Model U-114K-00-D0-1-TC1-ANP
Type E Model U-114E-00-D0-1-TC1-ANP

Temp. range	Tolerance	Response time	Durability
-50~250°C	±2.5°C (at 100°C surface)	2.0 s	A

Type K Model U-221K-00-D0-1-TC1-ANP
Type E Model U-221E-00-D0-1-TC1-ANP

Temp. range	Tolerance	Response time	Durability
-50~200°C	±2.5°C (at 100°C surface)	3.5 s	A

Type K Model U-118K-01-D0-1-TC1-ANP
Type E Model U-118E-01-D0-1-TC1-ANP

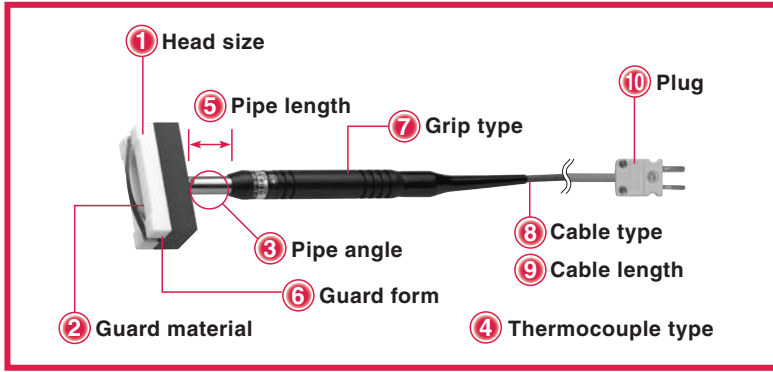
Temp. range	Tolerance	Response time	Durability
-50~250°C	±2.5°C (at 100°C surface)	2.0 s	A

Type K Model U-211K-01-D0-0-TC1-ANP
Type E Model U-211E-01-D0-0-TC1-ANP

No grip probe type

Temp. range	Tolerance	Response time	Durability
-50~250°C	±2.5°C (at 100°C surface)	3.5 s	A

How to order of U series



U-211K-00-D0-1-TC1-ANP



① Head size	1 : 25×32mm (Guard:U-*1*) 37×36mm (Wheel:U-*2*,U-*3*) 2 : 29×60mm (Guard:U-*1*) 40×66mm (Wheel:U-*2*,U-*3*)
② Guard material (Max. temp.)	1 : Teflon guard (250°C) 2 : Bearing wheel (200°C) 3 : Teflon wheel (250°C) 1~3 : Contact section is polyimide-coated. 4 : Teflon guard (200°C) 5 : Bearing wheel (200°C) 6 : Teflon wheel (200°C) 4~6 : Contact section is teflon-coated. 7 : Teflon guard (250°C) 8 : Bearing wheel (200°C) 9 : Teflon wheel (250°C) 7~9 : Contact section has no coating.
③ Pipe angle	1 : Straight 2 : 45 degrees 3 : 90 degrees 4 : 90 degrees (elbow) 5 : 45 degrees* 6 : 90 degrees* 7 : 90 degrees (elbow)* 8 : Direct 9 : Direct* *Element direction of right angle
④ Thermocouple type	K : Chromel-Alumel E : Chromel-Constantan
⑤ Pipe length	00 : 30mm 01 : 100mm 02 : 200mm 03 : 300mm 04 : 400mm 05 : 500mm
⑥ Guard form	D0~D4 : See right
⑦ Grip type	0 : No grip 1 : Standard grip
⑧ Cable type (See page 5)	TC :
⑨ Cable length	1 : 1m 1.5 : 1.5m 2 : 2m 2.5 : 2.5m
⑩ Plug (See page 4)	ANP : P plug ASP : S plug W : Without plug

① Head size ② Guard material

You can choose head size as below.

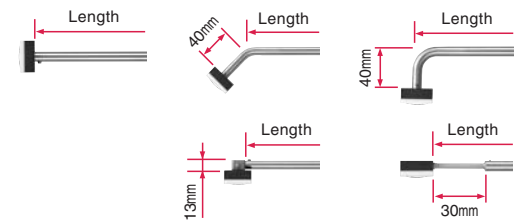
U-11* U-21* U-14* U-24* U-17* U-27*	U-12* U-22* U-15* U-25* U-18* U-28*	U-13* U-23* U-16* U-26* U-19* U-29*

③ Pipe angle

You can choose pipe angle as below.

	1	
	2	5
	3	6
	4	7
	8	9

⑤ Pipe length



⑥ Guard form

	mm		
	U-11* U-14* U-17*	U-21* U-24* U-27*	U-*2*,U-*3* U-*5*,U-*6* U-*8*,U-*9*
D0	φ 300~flat	φ 400~flat	flat only*
D1	—	φ 300~420	—
D2	φ 160~320	φ 160~320	—
D3	φ 100~200	φ 100~200	—
D4	φ 60~120	φ 60~120	—

*U-1** can be used for diameters of up to φ300mm in case of the D0 model.

*U-2** can be used for diameters of up to φ400mm in case of the D0 model.

⑦ Grip type

No grip	For device, system, auto-machines, mechanical system etc
Standard grip	For handheld measurement

Specifications

Tolerance	±2.5°C (at 100°C surface)
Response time	U-1** : 2.0 s U-2** : 3.5 s
Durability rank	A
Speed limit	U-1** : 400m / min U-2** : 600m / min