

# Molded Thermocouple with a Small Diameter and a Fluororesin Coating

Further expanding temperature measurement possibilities with an element outer diameter of just  $\phi 0.025$  mm.



This product is a thermocouple with its thermocouple wires insulated with fluororesin. It can be supplied with the measuring junction exposed or insulated with fluororesin or silicon rubber. Excellent for use in extremely narrow spaces as the sheath outer diameter after coating can be as small as just 0.1mm.

The fluororesin molded type has sufficient airtightness and excellent corrosion resistance.

While the fluororesin molded type is ideal for temperature measurements in water or wherever electrical insulation is needed, the exposed tip type is best suited for temperature measurements of gases and solid surfaces.

Advanced welding technology for  $\phi 0.025$  elements (EXS Nano Type).

Smooth installation in narrow spaces with tip molding having uniform diameter with sheath outer diameter.

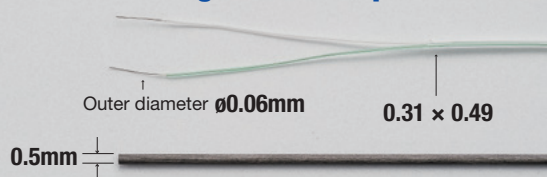
Suitable for use in water or wherever electrical insulation is needed as tip is molded with Teflon.

**Super ultra-fine coating thermocouple**



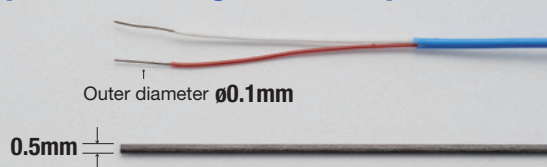
**EXS Nano Type**

**Ultra-fine coating thermocouple**



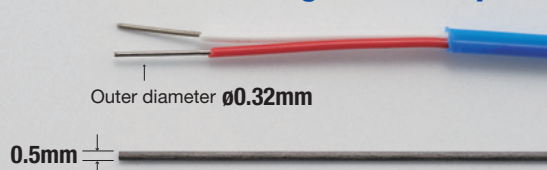
**EXS Ultra-Fine Type**

**Super-fine coating thermocouple**



**EXS Super-Fine Type**

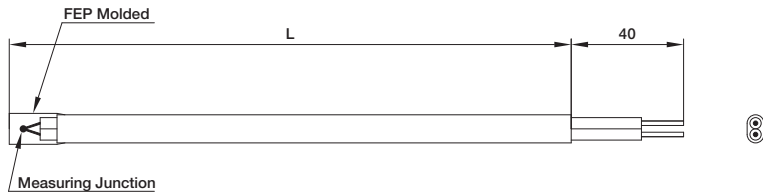
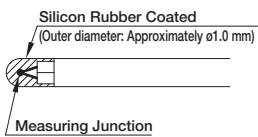
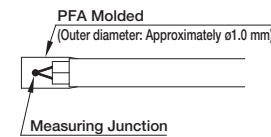
**Narrow-diameter coating thermocouple**



**EXS**

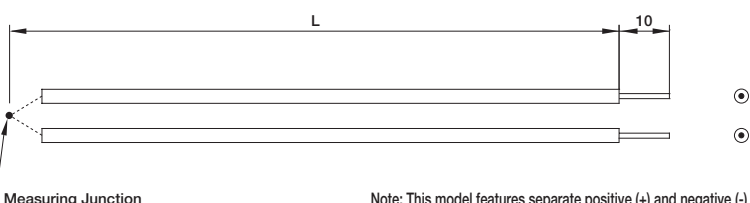


## Specifications

<b>■EXS Narrow-Diameter FEP-Coated Thermocouple</b> 		See table below
<b>■T801-1 Ultra-Fine PFA-Coated Thermocouple</b> 	<b>■T801-2 Super-Fine PFA-Coated Thermocouple</b> 	

Note: Not suitable for use in pressurized environments which require airtightness as silicon rubber coating is just simply applied on the measuring junction.  
 Due to the coating method, the outer diameter of the tip is comparatively large at approx  $\phi 1.0$ mm, which makes this product not ideal for measurement in extremely small locations.

Note: Airtightness of approximately 0.01 MPa.  
 Use a model with a fluororesin-coated measuring junction shown above if airtightness is required.

<b>■T801-0 Super Ultra-Fine Coating Thermocouple</b> 	Element : K(KP, KN) class 1 Element outer diameter : $\phi 0.025$ mm Insulation coating : PFA resin Coating outer diameter : $\phi 0.1$ mm Maximum usage temperature : 180°C  Note: The color of the insulation coating complies with JIS C 1610:2012.
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Note: This model features separate positive (+) and negative (-) sides.

Model	Element outer diameter	Coating material	Maximum usage temperature	Finished outer diameter	Molded tip with uniform diameter	Element			
						K	E	J	T
T801-0	0.025mm	PFA	180°C	0.1mm (2 wires)	—	○	—	—	—
T801-1	0.06mm	PFA	180°C	0.31×0.49mm	—	○	—	—	○
T801-2	0.1mm	PFA	260°C	0.42×0.68mm	○	○	—	—	—
EXS	0.2mm	PFA	260°C	0.9×1.4mm	○	○	—	—	—
EXS	0.32mm	FEP	200°C	1.02×1.69mm	○	○	○	○	○
EXS	0.65mm	FEP	200°C	1.7×2.8mm	○	○	○	○	○

\* Refer to the general thermocouple catalog for details on model selection.



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Information in this catalog is subject to change without notice.

**CAT. NO. OMC-8003E**  
 First Ver. Jul, 2016 1000 parts  
 Ver.2-1 Jan, 2021 500 parts