



Application

- ✓ Protecting the pressure instrument from high or low process temperature
- ✓ Distant reading
- ✓ To be used in combination with diaphragm seals, transmitters, switches, and gauges

Special Features

- ✓ Compatible with process temperature between -100°C to +500°C
- ✓ Up to 10.000 Psi pressure tolerance

Description

In various industrial fields, there is a demand for remote reading of pressure gauges or distant installation of pressure instruments and that is when InstruMate capillary tube finds one of its core applications.

Other main advantage of capillary tube model 8118 is protecting the instrument from high and low process temperatures.

InstruMate 8118 benefits from stainless steel armor for better protection.

Note that the capillary length must be chosen as short as possible to maintain acceptable response time. Longer capillary lengths might affect accuracy as they are more vulnerable to ambient temperature changes.

If the capillary tube is used in combination with a diaphragm seal, make sure there is no level difference between the pressure instrument and the diaphragm seal as it can cause indication error.

Specification of the Standard Version

Capillary Tube	Capillary Armor
SS316	Stainless steel
Process Connection	Permissible Pressure
SS316	Up to 10.000 psi Max
Instrument Connection	Mounting
SS316	Horizontal / Vertical Both ends should be at almost same level if used with diaphragm seals
Capillary Diameter	Permissible Temperature
Inner: 1.6 mm Outer: 3.2 mm	Storage: -40...+70°C Process: -100...500°C

Possible Connections

	Male	Female
Process Connection ¹	½ NPT *	½ NPT
	¼ NPT	¼ NPT
	G ½ *	G ½
	G ¼	G ¼
Instrument Connection ²	½ NPT	½ NPT *
	¼ NPT	¼ NPT
	G ½	G ½ *
	G ¼	G ¼

Connections marked with * are usually in stock for urgent delivery.

1. Capillary tube process connection must be male when it is intended to be used with diaphragm seals.

2. Capillary tube instrument connection must be female when it is intended to be used with gauges and transmitters, while some switches demand a male instrument connection of the capillary tube.

Capillary Lengths

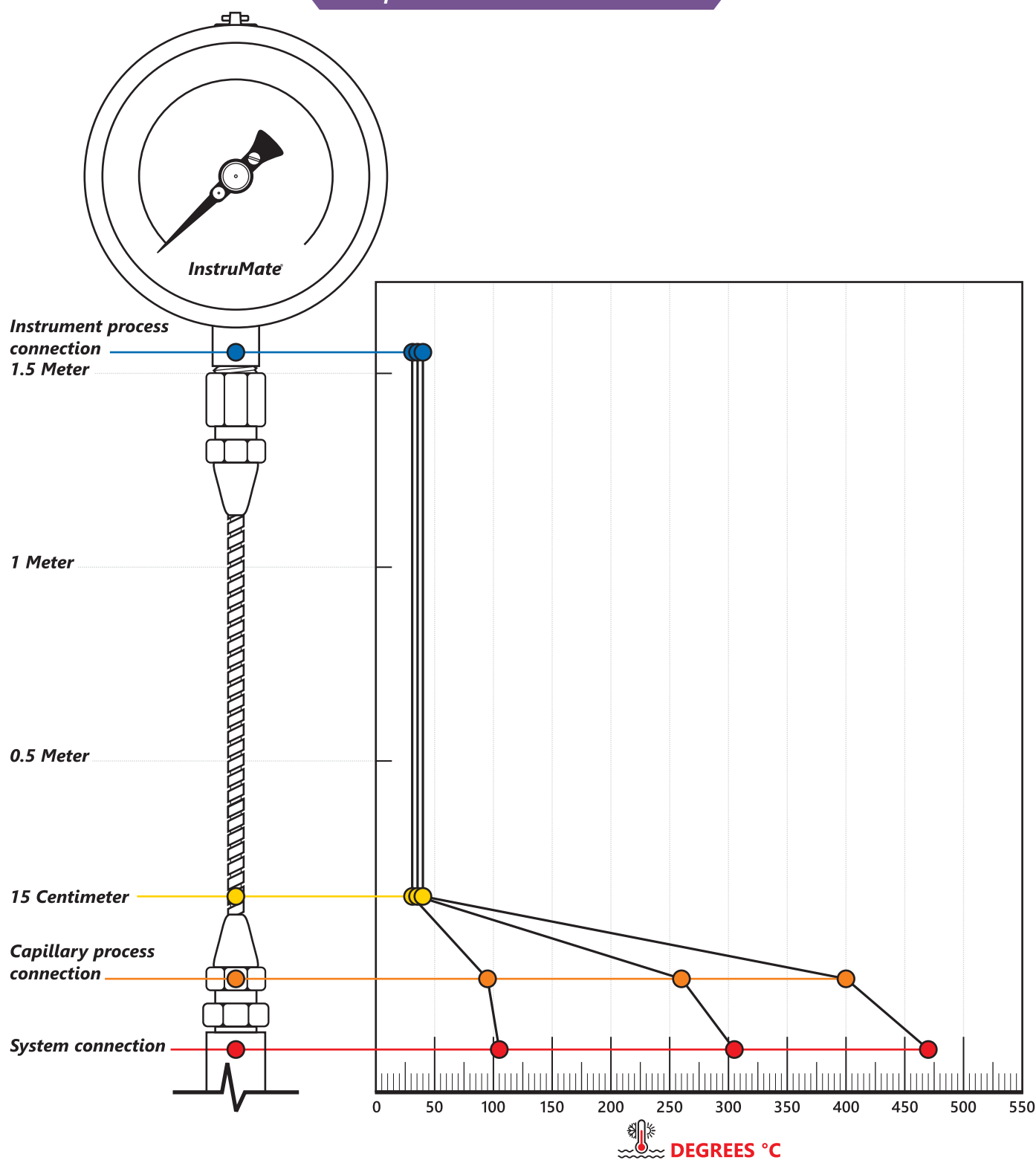
By foot	1', 3', 5', 10', 25'
By meter	0.5, 1*, 1.5*, 2, 3, 5, 10

Lengths marked by * are usually in stock for urgent delivery.

Options

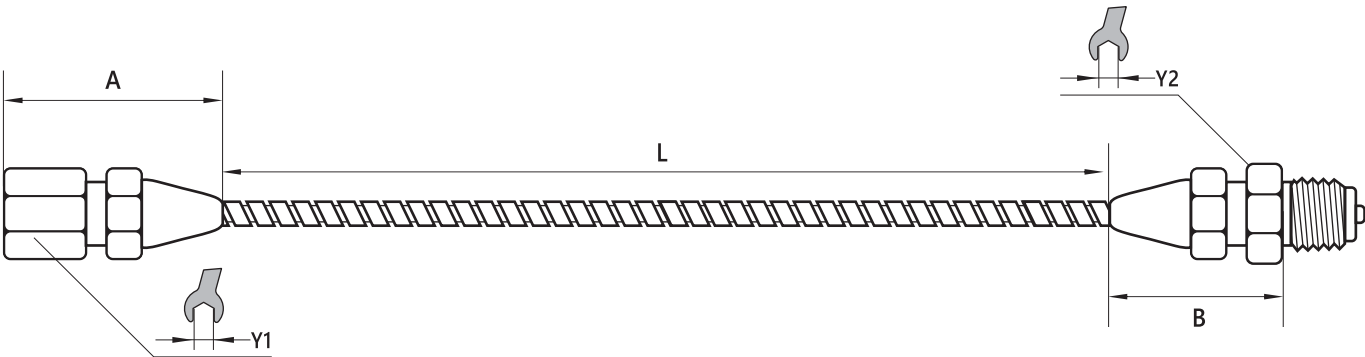
- ✓ Customized capillary length
- ✓ Customized capillary tube inner and outer diameter
- ✓ Other process connections

Temperature Reduction Table



This sample graph shows the heat reduction based on a test in factory laboratory. These results are not intended to be relied on field because multiple criteria such as ambient temperature, type of process media and velocity can affect the result. This data set is to be used as a reference point only for conditions in which the filling oil is silicon and ambient temperature is 20°C.

Dimensions (in mm)



L (Capillary Lengths)	A	B	Y1	Y2
See Page 2	63	49	24	22

How To Order

	Product Group Name	Model	Instrument connection	Process connection	Capillary length	Options
Example:	Capillary tube	8118	1/2 NPT female	1/2 NPT male	1 meter	-

Or simply order by item number on the basis of your previous purchases.