Instructions

Melt Pressure Sensor

MTT Series

CE

attestation

ISO 9001, 14001, 45001,10002 & 31000

Please read this instruction manual carefully before installation

www.meltsensor.com
satis@meltsensor.com
+90 544 299 61 41

Content

Introduction

MTT Series melt temperature sensor is suitable for temperature measurement of melt, fluid, gas, etc. The forms of temperature sensor are various. While reducing the medium flow resistance, the sensitive part of the probe is completely placed in the measurement medium, with higher measurement accuracy, shorter response time, better reliability and long life etc.

Application

Petrochemicals, Textile&chemical fiber, Plastics&rubber etc

Product Features

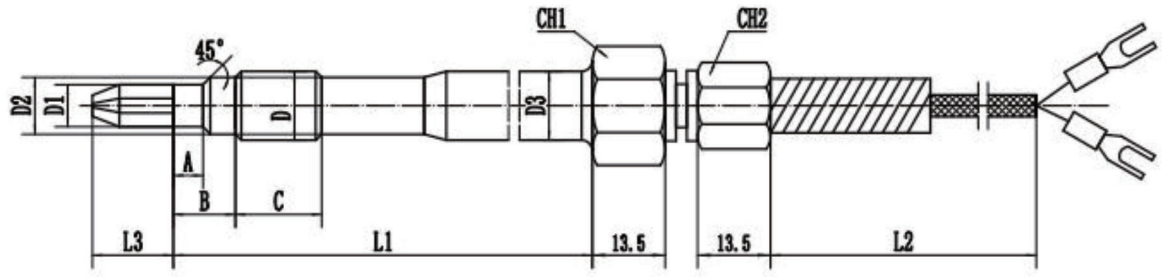
- Temperature Range from 0-700°C
- 4-20mA output is optional
- Different thermocouple and RTD are optional
- Different Shapes of tip is available

Technical Data

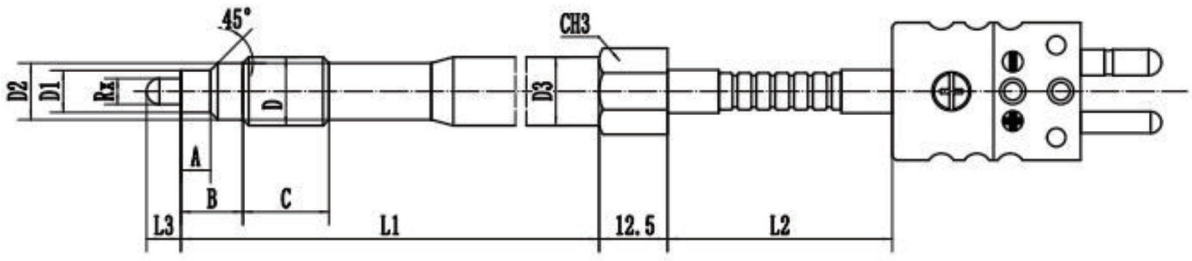
Thermocouple	J Type,K Type,PT100
Accuracy	Class A
Temperature	0-700℃
Material	SUS304
Withstand voltage rating	Max70MPa
Process connection	1/2-20UNF,M18×1.5,M14×1.5
Probe form	Flat, Conical type, Cylindrical type, Blade shape
Temp measurement terminal form	Insulation
E-connection	Thermocouple, Leading wire,7-pin aviation connector

Dimensions

Standard Rotatable Rigid Stem (Code:HD)



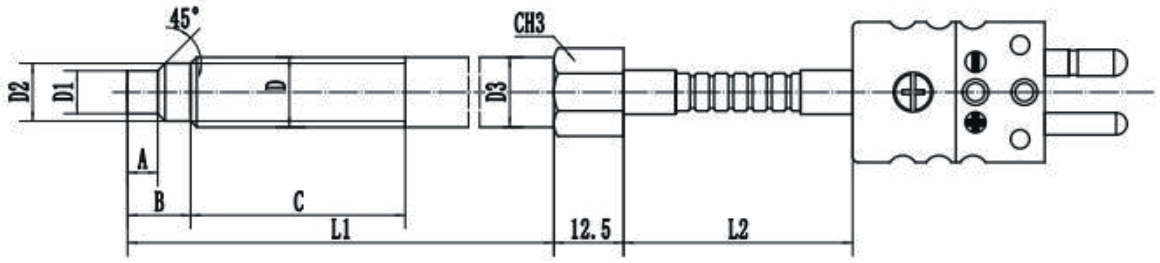
Standard Fixed Rigid Stem (Code:FI)



D	D1	D2	D3	A	B	C	CH1	CH2	CH3
1/2-20UNF	ϕ7.8	ϕ10.5	ϕ12.7	5.5	11.5	16	19	14	16
M14×1.5	ϕ7.8	ϕ11.5	ϕ12.7	5.5	11.5	16	19	14	16
M16×1.5	ϕ9.8	ϕ13.5	ϕ15.8	5.5	13	20	19	14	19
M18×1.5	ϕ9.8	ϕ15.8	ϕ17.8	8	14	20	19	14	19

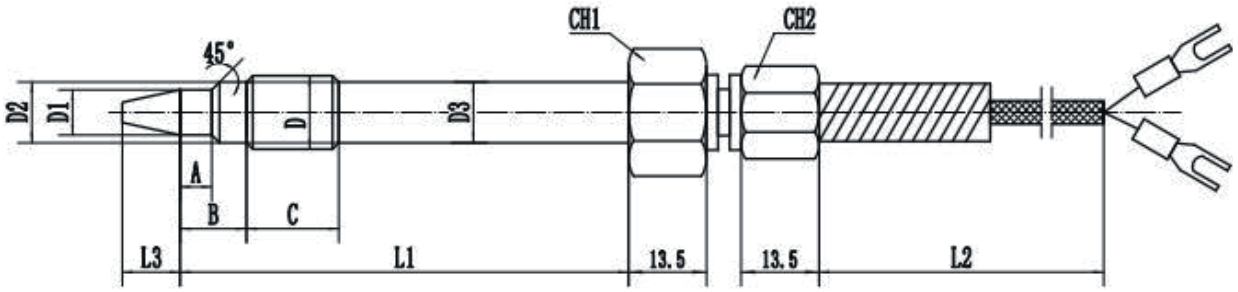
Fixed Rigid Stem with Thread Lengthened Type (Code:Cx)

“x” means thread length x mm

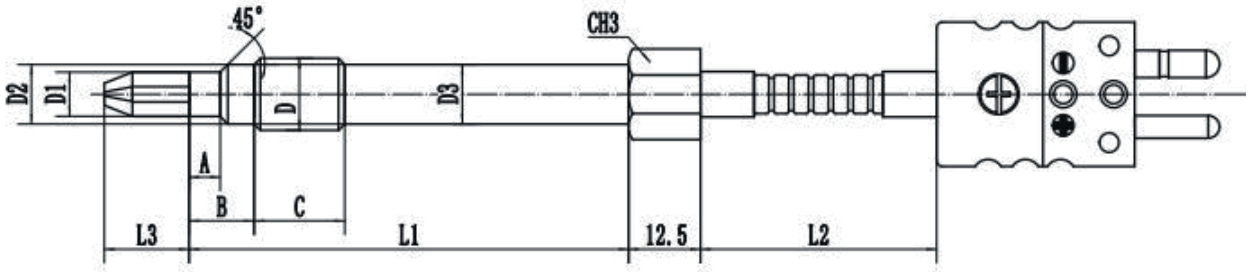


D	D1	D2	D3	A	B	CH3
1/2-20UNF	ϕ7.8	ϕ10.5	ϕ12.7	5.5	11.5	16
M14×1.5	ϕ7.8	ϕ11.5	ϕ12.7	5.5	11.5	16
M16×1.5	ϕ9.8	ϕ13.5	ϕ15.8	5.5	13	19
M18×1.5	ϕ9.8	ϕ15.8	ϕ17.8	8	14	19

Rotatable Rigid Stem with Y Type (Code:YH)



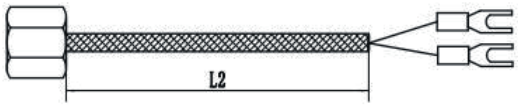
Fixed Rigid Stem with Y Type (Code:YF)



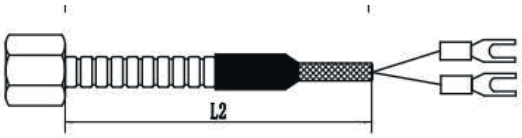
D	D1	D2	D3	A	B	C	CH1	CH2	CH3
1/2-20UNF	ϕ7.8	ϕ10.5	ϕ10.5	5.5	11.5	16	19	14	16
M14×1.5	ϕ7.8	ϕ11.5	ϕ11.5	5.5	11.5	16	19	14	16
M16×1.5	ϕ9.8	ϕ13.5	ϕ13.5	5.5	13	20	19	14	19
M18×1.5	ϕ9.8	ϕ15.8	ϕ15.8	8	14	20	19	14	19

Cable housing

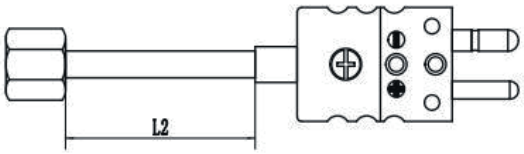
None (Code:FN)



Metal bellow (Code:FY)

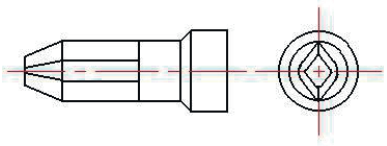


Stainless steel tube (Code:FT)

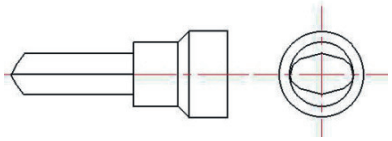


Tip type

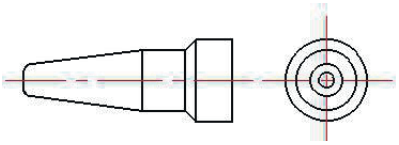
Blade type (Code:L)



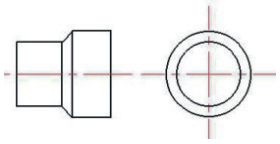
Oval type (Code:T)



Conical type (Code:C)

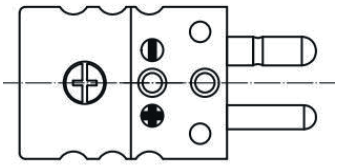


Flat Head shape (Code:F)

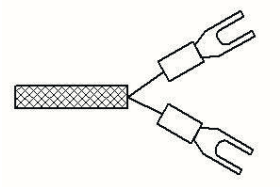


Electrical connection

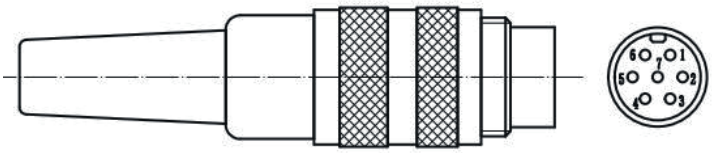
Thermocouple plug board (Code:P)

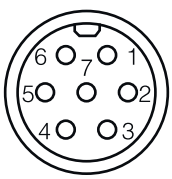


Leading wire Y Terminal (Code:W)



M16 connector (7-PIN) (Code:T)



M16	PIN	2-wire TC and RTD	3-wire Pt100	4-wire Pt100	2-branch 2-wire Pt100	2-branch 3-wire Pt100
	1	+	+	+	+	+
	2			+		
	3	-	-	-	-	-
	4		-	-		-

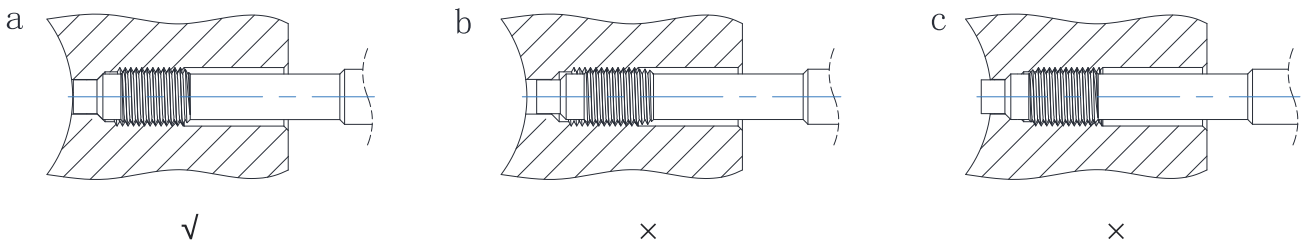
Installation & Removal

Installation

When installing the melt temp sensor, the sensor hole should be within the size requirement marked in following drawing and the assembly accuracy can be checked by testing bolts. Before installing the sensor , first clean the impurities in the hole and between the threads, then the thread of the sensor is coated with heat-resistant slurry, the screw teeth can be avoided. The installation force is very important, the installation torque of the rupture disk can only act on the shaft (hexagon), do not apply any force to its head. The housing should be kept away from high temperature areas.

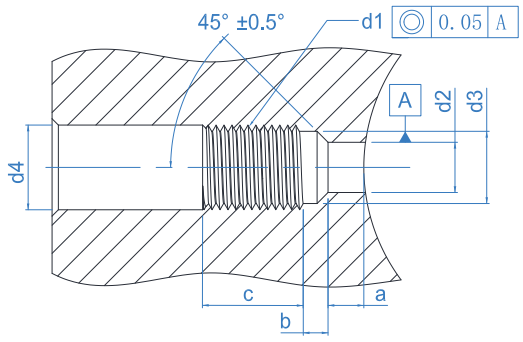
1/2-20 UNF /M14×1.5= Maximum starting torque: 40Nm

M18 x 1.5 = Maximum starting torque: 50 Nm



Removal

The removal of sensor must be done under heated conditions (plastic melting point). When remove the sensor, please note that the diaphragm has no contact pressure. The force to remove the sensor must only be applied on the shaft (hexagon), and do not apply any force to the head of the sensor.



d1	M18×1.5	M14×1.5	1/2-20UNF-2A
d2	Ø $9.9^{+0.1}$	Ø $7.9^{+0.1}$	Ø $7.9^{+0.1}$
d3	Ø $16.1^{+0.1}$	Ø $11.7^{+0.1}$	Ø $10.7^{+0.1}$
d4	Ø 20	Ø 15	Ø 14
a	$6.1^{-0.1}$	$5.7^{-0.1}$	$5.7^{-0.1}$
b	$4^{-0.2}$	$3.2^{-0.2}$	$3.2^{-0.2}$
c	25	19	19

Transport and storage

The temperature probe and thread of MTT series are protected by a cap, which should be tightened at any time in storage and only opened when installed.