



**Features**

- DIN case version.
- External zero adjustment
- Stainless steel case & measuring system
- Inert gas filled expansion system.
- Silicon oil filled
- Standard Followed EN 13190

**Applications**

- This Nitrogen filled thermometer is the most widely specified instrument for measuring exhaust gas temperatures in diesel engines.
- The Nitrogen filled system is both reliable & accurate as well as environment Friendly.
- The instruments are protected against vibration using silicone oil to ensure maximum life under the most severe conditions.
- The instrument field applications are refinery, diesel power generation sets, power, pulp & paper, shipping, offshore, DG sets, oil engines & allied process industries.

**Specifications**

**Standard Version: 100 mm, 150 mm**

Accuracy	:	Class 1 as per EN 13190
Case & bezel	:	AISI 304 SS (Snap Lock type)
Movement	:	Copper Alloy
Stem & connection	:	AISI 316 SS
Joints	:	Tig argon arc welding
Ambient temperature	:	-25°C C to 65°C
Operating pressure	:	15 kg/cm2 ( without thermowell )
Over range limit	:	120 % of Full Scale
Stem diameter	:	8 mm
Process connection	:	½" BSP (M) Adjustable
Protection	:	IP 65
Dial	:	Aluminium, black graduation on white background
Pointer	:	Aluminium, black Coloured Micrometer Zero adjustable
Window	:	Sheet Glass
Gasket & Filling Plug	:	Neoprene

**Silicon oil filled Version**

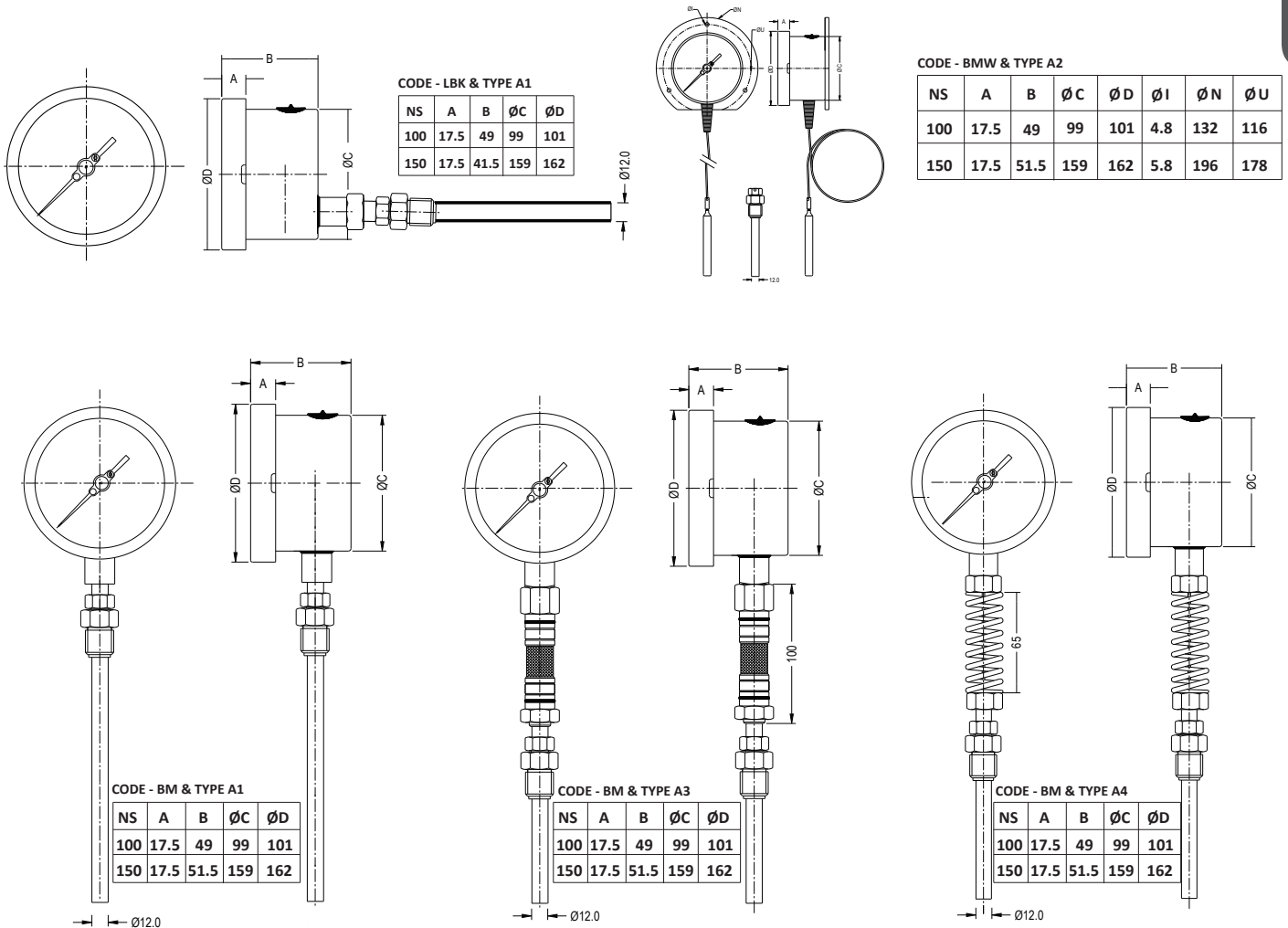
Accuracy	:	Class 1 as per EN 13190
Ambient Temperature	:	Maximum 65°C
Window	:	Plexi Glass
Dampening Liquids	:	Silicon Oil (Option DS)
Gasket & filling Plug*	:	Viton
Other Features	:	Refer Specification of Standard Version
*Gasket & Filling plug of Viton.		

**Nominal range, measuring ranges & limits of error as per EN 13190**

Nominal Range (°C)	Measuring Range (°C)	Limits of Error (± °C)
-20 to +40	-10 to +30	1
-20 to +60	-10 to +50	1
-20 to +120	-10 to +110	2
-30 to +30	-20 to +20	1
-30 to +50	-20 to +40	1
-30 to +70	-20 to +60	1
-40 to +40	-30 to +30	1
-40 to +60	-30 to +50	1
-100 to +60	-80 to +40	2
0 to 60	10 to 50	1
0 to 80	10 to 70	1
0 to 100	10 to 90	1
0 to 120	10 to 110	2
0 to 160	20 to 140	2
0 to 200	20 to 180	2
0 to 250	30 to 220	2.5
0 to 300	30 to 270	5
0 to 400	50 to 350	5
0 to 500	50 to 450	5
0 to 600	100 to 500	10

**Dimensions - Standard Version**

Diagram and Code indicates Type of Mounting



Notes : • Drawings are not to scale. • All Dimensions are in mm. • NS = Nominal Size.

**Range Table**

Note : We offer National / International Scales like °C, °F & Dual Scale in °C & °F & Scales as per the requirement can be provided on request. Following are the example tables for °C

**Standard Ranges**

Positive range single scale in °C			
Range	Range	Range	Range
0 to 60	0 to 120	0 to 250	0 to 500
0 to 80	0 to 160	0 to 300	0 to 600
0 to 100	0 to 200	0 to 400	50 to 650
Compound range single scale in °C			
Range	Range	Range	Range
-80 to 60	-20 to 60	-40 to 60	-20 to 180
-60 to 40	-20 to 80	-30 to 50	-20 to 100

Refer table for limits of error as per EN13190

**Accessories** (\*Refer Datasheet For Thermowells)

* Thermowell
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Note: Design and Specifications subject to change without prior notice.

**How To Order - Ordering Example: 2511TG : DIN.150. EA. 2NPM. ADJ. 2C. 100mm. 0 to 60°C SS**

Basic Model		2511TG : DIN	
<b>Code</b>		<b>100</b>	<b>150</b>
<b>Nominal Size</b>		100 mm	150 mm
<b>Code</b>	<b>Type of Mounting</b>		
<b>BMW</b>	Wall / surface / projection mounting with bottom entry		
<b>BM</b>	Direct bottom entry		
<b>LBK</b>	Direct lower back entry		
<b>Code</b>	<b>Process Connection (# Not recommended for Revolving/ Swivel connections.)</b>		
<b>2BSM</b>	½" BSP (M) (Standard)*	<b>34BSM</b>	¾" BSP (M)
<b>2NPM</b>	½" NPT (M)#*	<b>2M20</b>	M20 x 1.5 (M)*
<b>2BSTM</b>	½" BSPT (M)#*	<b>38BSM</b>	¾" BSP (M)*

\* Suitable for stem diameter 6 to 10 mm, Note : Connections like Metric/ PT/ PF/ Flaired/ UNF/ G/ R etc can be provided on request.

Code	Process Connection Type	Code	Process Connection Type	Code	Process Connection Type
<b>ADJ</b>	Adjustable (Standard)	<b>FXD</b>	Fixed	<b>ROV</b>	Revolving / Swivel

Stem Diameter											
<b>1U</b>	6 mm	<b>2M</b>	6.35 mm	<b>2C</b>	8 mm (Standard)	<b>2I</b>	9.5 mm	<b>2J</b>	10 mm	<b>2K</b>	12 mm

Stem Length (Below thread Max. 600 mm)								
Please specify in mm	Minimum stem Length (Below Thread)			130 mm	120 mm	120 mm	120 mm	110 mm
	Stem OD			6 / 6.35mm	8 mm	9.5 mm	10 mm	12 mm

**Range Refer range table**

Code	Type	Code	Type	(* Suitable stem diameter 12 mm only)
<b>A1</b>	With rigid stem	<b>A3</b>	With SS braided anti vibration*	
<b>A2</b>	With capillary	<b>A4</b>	With SS anti vibration spring*	

**Capillary length (Max up to 15 Mtrs.)** In meters (e.g. 1.5 = 1.5 meters 2.0 = 2 meters)

Code	Capillary	Code	Capillary
<b>SS3</b>	AISI 304 SS	<b>SS</b>	AISI 316 SS

**Capillary covered with armour (Applicable with Capillary if selected)**

Code	Capillary	Code	Capillary	Code	Capillary
<b>SS3</b>	AISI 304 SS	<b>SS</b>	AISI 316 SS	<b>PVC</b>	PVC (Ambient Temp. Max. 60°C)

Code	Options	Code	Options
<b>DG</b>	Dampening liquid glycerin filled (ambient temp. Max. 65°C)	<b>CD</b>	Custom designed dial
<b>C5</b>	Five point calibration certificate (for measuring range)	<b>SG</b>	Shatterproof/safety glass
<b>DS</b>	Dampening liquid silicon oil (ambient temp. Above 65°C)*	<b>TG</b>	Toughened glass
<b>MTC</b>	Material test certificates#	<b>TM</b>	Dial tag marking
		<b>ST</b>	SS tag plate

\*Gasket & Filling plug of Viton. # Material test certificates will be provided for wetted parts only with chemical composition testing.

For others, please consult factory.

For other optional items, please contact factory for delivery and minimum quantity of order.