

# Direct reading thermometer

## Model : T220

Spec. sheet no. TD02-05

### Service intended

This thermometer is used for measuring temperature of corrosive and non-corrosive fluid in all industries. It operates in aggressive and non-aggressive environment. Linear dials and temperature compensate line assure an accurate temperature indication at varying ambient conditions.



### Nominal diameter

100 and 150 mm

### Accuracy

±2.0 % of full scale

### Measuring system (SAMA class IIIB)

Gas : -200 ~ 700 °C

### Working range

Maximum scale value

### Max. allowable pressure at stem

Under normal static conditions, the stem is designed to withstand up to 2 MPa (20 bar). However, depending on installation conditions such as vibration, flow velocity, or pressure fluctuations, the use of a thermowell is recommended in high-temperature or high-pressure environments.



## Standard features

### Location of stem

Bottom connection, direct  
Lower back connection, direct

### Case

304SS

### Cover

304SS

### Window

Tempered safety glass

### Dial

White aluminium with black graduation

### Pointer

304SS, Black painted

### Stem

8.0, 10.0 and 12.0 mm  
316SS and 316L SS

### Zero adjustment

Internal

### Stem, process connection

3/8", 1/2", 3/4" PT, NPT and PF

### Option

±1.0 % of full scale

### Certificates

ATEX II 2G Ex h IIC T6...T1 Gb /  
ATEX II 2D Ex h IIIC T85°C...T450°C Db

**1. Base model****T220** Direct reading thermometer**2. Nominal diameter (mm)**

- 4** 100  
**6** 150

**3. Type of mounting**

- A** Bottom connection, direct  
**G** Lower back connection, direct

**4. Stem material**

- 1** 316SS  
**2** 316L SS

**5. Stem, process connection**

- A** None  
**D** 3/8"  
**E** 1/2"  
**F** 3/4"

**6. Stem connection type (CF: Compression fitting)**

- A** None  
**E** CF + PT  
**F** CF + NPT  
**G** CF + PF  
**H** MT + PT (Movable thread)  
**I** MT + NPT (Movable thread)  
**J** MT + PF (Movable thread)

**7. Stem outer diameter (mm)**

- 2** 8.0  
**3** 10.0  
**4** 12.0  
**Z** Other

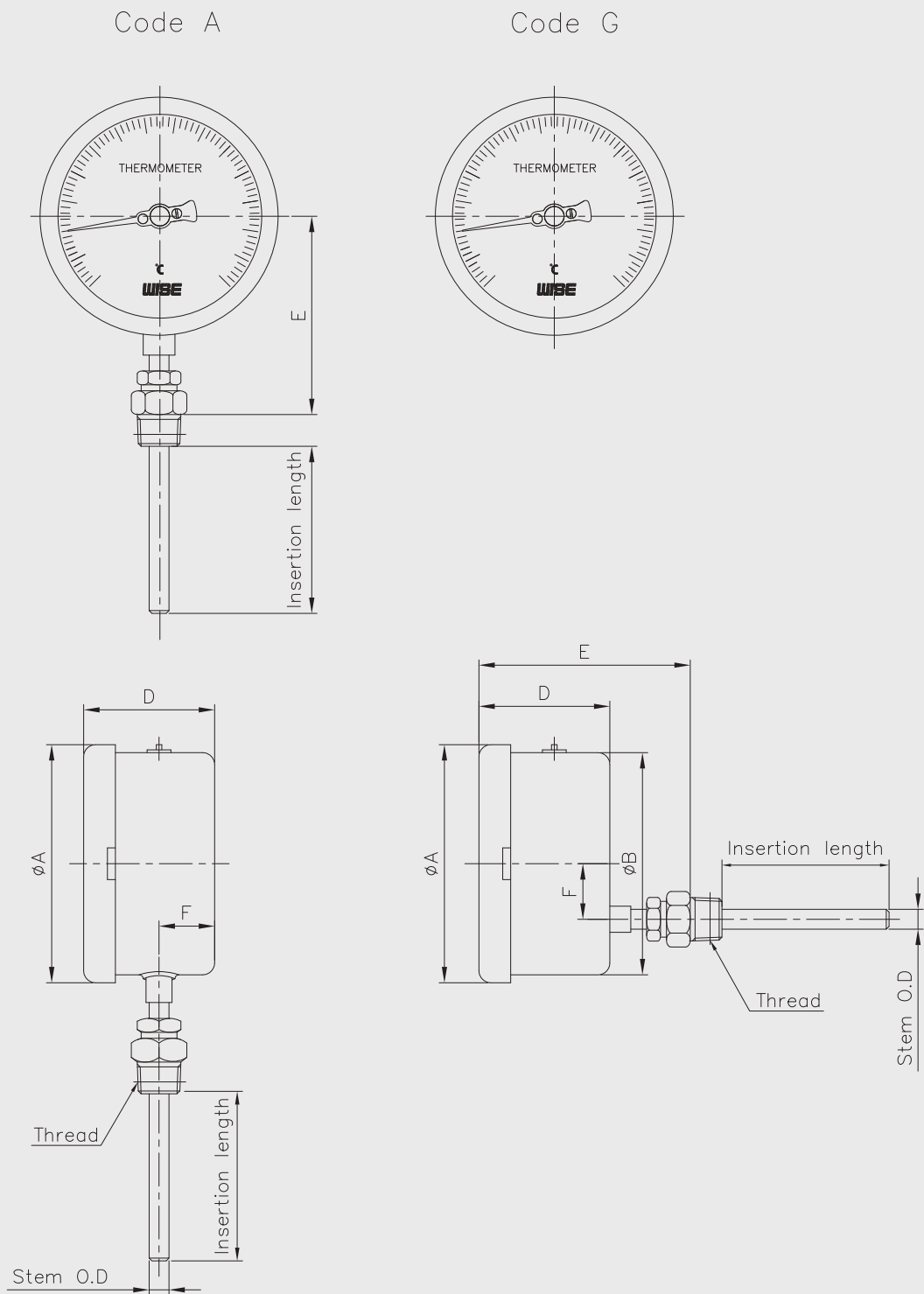
**8. Range****XXX** Refer to scale range table**9. Insertion length****X** Refer to insertion length table**10. Accessories**

- 0** None  
**1** Thermowell  
**2** Special accuracy ( $\pm 1.0$  % of full scale)  
**3** Thermowell and special accuracy

**Sample ordering code**

1	2	3	4	5	6	7	8	9	10
T220	4	A	1	E	C	3	XXX	X	1

## T220 : Type of mounting



Dimensions (mm)

Dial Size	Available code	A	B	D $\pm 2$	E $\pm 2$	F $\pm 1$
100	A	111		48.5	100	17
	G	111	99.5	48.5	98.5	30
150	A	168.5		63	125	22
	G	168.5	153	63	113	55

## Scale ranges

Code	Scale range (°C)	Scale spacing (°C)	Minimum stem length (mm)		
			8.0	10.0	12.0
031	-200 ~ 100	5	500	500	500
032	-50 ~ 50	2	100	85	65
037	-50 ~ 100	2	100	85	65
054	-30 ~ 50	2	100	88	65
059	-30 ~ 100	5	100	85	65
061	-30 ~ 120	2	100	85	65
069	-20 ~ 50	2	100	85	65
074	-20 ~ 100	2	100	85	65
079	-20 ~ 150	5	100	85	65
084	-10 ~ 50	1	100	85	65
099	0 ~ 50	1	100	85	65
100	0 ~ 60	1	100	85	65
101	0 ~ 70	2	100	85	65
102	0 ~ 80	1	100	85	65
104	0 ~ 100	2	100	85	65
106	0 ~ 120	2	100	85	65
109	0 ~ 150	2	100	85	65
114	0 ~ 200	5	100	85	65
119	0 ~ 250	5	100	85	65
124	0 ~ 300	5	100	85	65
129	0 ~ 350	5	100	85	65
134	0 ~ 400	5	100	85	65
144	0 ~ 500	10	100	85	65
154	0 ~ 600	10	100	85	65
164	0 ~ 700	10	100	85	65

\* 0 ~ 700 °C/Special range

\* -200 ~ 100 °C/Special range

## Insertion length

Code	1	2	3	4	5	6	7	8	9	A	B	C
Length (mm)	50	60	70	80	100	120	130	150	175	200	225	250

Code	D	E	F	G	H	J	K	L	M	N	P
Length (mm)	275	300	350	375	400	450	500	550	1,000	1,500	2,000