

## **Stainless steel rigid stem**

*and remote reading thermometers*



Thermometers – 5000 series

DE WIT gas actuated thermometers are manufactured to the highest standards for a wide range of uses and may be fitted in almost any temperature indicating application. They are made of stainless steel so they are resistant to corrosion, chemical attack and tough industrial use. The temperature responsive system is gas actuated and does not contain mercury or any other toxic aggressive fluids. The thermometers can be supplied as a rigid stem model or with capillary, for remote reading applications. Typical applications include (petro)chemical industry, food and beverage industry, offshore, engines, paper and other process industries.

*This leaflet has been designed to make it easier to select exactly the type of thermometer you require.*

### Operating principle

The temperature responsive system consists of a probe, capillary and a flattened spiral bourdon tube. This sealed system is filled with an inert gas (nitrogen is standard). When the bulb is heated, the pressure in the system increases and the spiral tube unwinds slightly to operate the micro-adjustable pointer. The scale is linear. A bimetallic device connected to the bourdon tube will compensate for errors due to ambient temperature variations.

<b>Standard specifications</b>	<b>Dial sizes</b>	63 mm, 100 mm, 160 mm
	<b>Case material</b>	stainless steel AISI 304, weatherproof
	<b>Ring material</b>	stainless steel AISI 304, bayonet lock, polished
	<b>Window</b>	laminated safety glass
	<b>Dial</b>	anodised aluminium, white with black markings
	<b>Pointer</b>	aluminium, black finish, adjustable execution
	<b>Pointer deflection</b>	270 degrees
	<b>Accuracy</b>	cl. 1,0 to DIN 16203 for dial sizes 100 mm and 160 mm, cl. 1,6 to DIN 16203 for dial size 63 mm
	<b>Movement</b>	stainless steel AISI 304
	<b>Connection</b>	stainless steel AISI 316, seven standard connection types are available, see probes
	<b>Stem</b>	stainless steel AISI 316
	<b>Capillary</b>	3 mm diameter stainless steel AISI 316 or stainless steel with flexible armour (armour material is stainless steel AISI 302)
	<b>Ranges</b>	from -200 degr.C up to 650 degr.C (see table) (minimum span 60 degr.C)

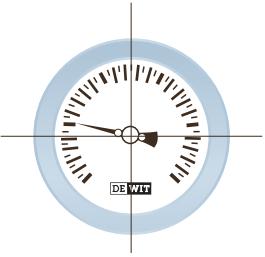
### Options

- Dial size 50 mm, 250 mm
- Liquid filling (add V to model number)
  - a to avoid condensation on the window when mounted outside
  - b where the thermometer is exposed to vibration
- Case and bayonet ring material stainless steel AISI 316
- Contacts: electric, inductive and magnetically assisted contacts can be fitted to 100 mm and 160 mm dial thermometers
- Other probe dimensions
- Other instrument connections
- External zero adjustment
- O.E.M. executions
 

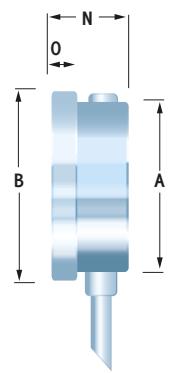
If you are an Original Equipment Manufacturer and plan to incorporate our thermometers in your finished product for sale, special ranges or special dials can be made to suit your particular requirements. Such specials can bear your own company name and/or logo on the dial. The quality, appearance and performance of a DE WIT thermometer will complement your equipment.
- Thermowells, recommended when used with liquids and for pressures over 6 bar

<b>Standard temp. ranges</b>	Centigrade	-200/+50	-120/+40	-100/+50	-80/+40	-60/+40	-40/+40	-30/+30	-30/+50	0-60
	Fahrenheit	-300/+100	-200/+100	-150/+150	-100/+100	-80/+120	-40/+120	-30/+90	-30/+130	-20/+140
	Centigrade	0-100	0-120	0-160	0-200	0-250	0-300	0-400	0-500	0-600
	Fahrenheit	+20/+220	+20/+270	+20/+320	+20/+420	+20/+520	+30/+530	+30/+730	+30/+930	+30/+1130

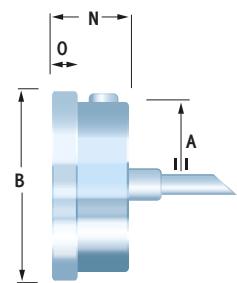
## Rigid stem thermometers



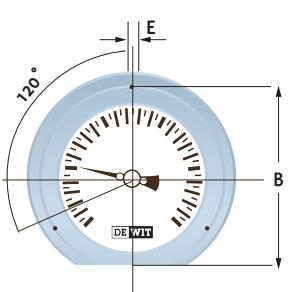
Type 5000



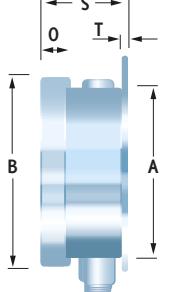
Type 5100



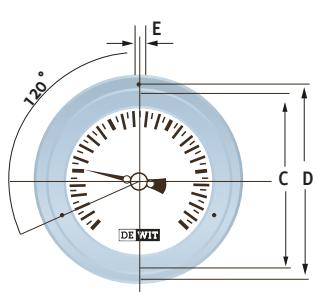
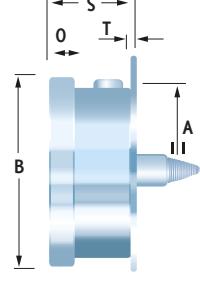
## Remote reading thermometers



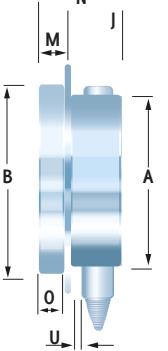
Type 5500



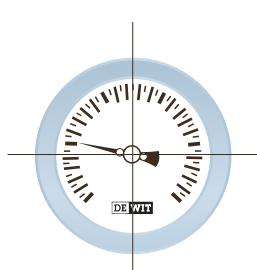
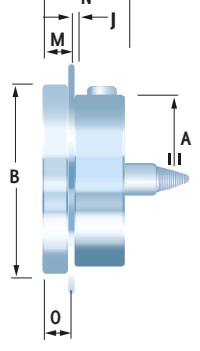
Type 5600



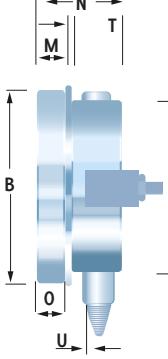
Type 5550



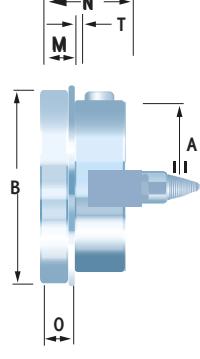
Type 5650



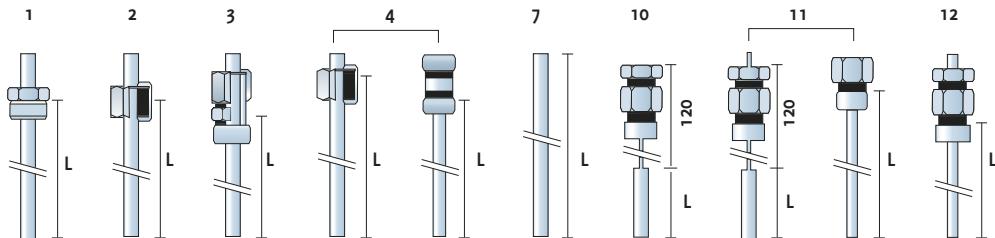
Type 5700



Type 5800



## Probes



1 Fixed thread nipple

2 Overthrow union nut

3 Double nipple

4 Double nipple c/w welded thermowell

7 Plain, no process connection

10 Sliding nut on extension neck

11 Sliding nut on extension neck c/w thermowell

12 Sliding nut on probe

Dia	Ø 63	Ø 100	Ø 160
Ø A	62	99	159
Ø B	68	112	172
p.c.C.	75	116	178
Ø D	85	132	196
Ø E	3,6	4,2	5,8
j	3	3,5	3,5
m	13	19	20
n	31	49	50
o	12	17	17
s	35	51	54
t	4	5,5	7
u	5	5	5

# How to order

<b>Model</b>															
Rigid stem	Bottom connection	5000													
	Back connection	5100													
	Back connection, back flange	5200													
	Back connection, front flange	5250													
<b>Angle type</b>	Backwards	5300A												1	
	To the right	5300B													
	To the left	5300C													
	To the front	5300D													
	Every angle	5300E													
<b>Remote reading</b>	With bracket	5400													
	Back flange, bottom connection	5500													
	Back flange, back connection	5600													
	Front flange, bottom connection	5550													
	Front flange, back connection	5650													
	U-clamp, bottom connection	5700													
	U-clamp, back connection	5800													
<b>Execution</b>	standard dry, add V for liquid filling													2	
<b>Dial</b>															
Size	63 mm / 100 mm / 160 mm dia													3	
Scale	Single in degrees C	C												4	
	Single in degrees F	F													
	Dual in degrees C/F	C/F													
	Dual in degrees F/C	F/C													
<b>Temperature</b>															
Range	See table standard temperature ranges													5	
Measuring unit	°C or °F													6	
<b>Capillary</b>															
Length in meters														7	
Material	stainless steel	-												8	
	stainless steel with flexible armour	F													
<b>Probe</b>															
Connection type	see probes													9	
Thread size	1/2", 3/4" or 1"													10	
Thread type	BSP or NPT													11	
Probe dia	10 mm or 12 mm													12	
Probe length	min. 100 mm (the probe should be installed so that the sensitive length is fully immersed)													13	
<b>Options</b>	See page 2													14	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
<b>Ordering code</b>															

All dimensions are for reference only and subject to change

## Pressure System Builders Vietnam

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