

Stainless steel rigid stem

and remote reading thermometers



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.

Standard specifications

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

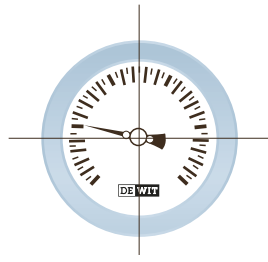
Options

- 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

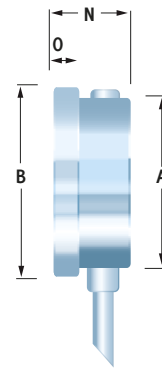
Standard temp. ranges

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

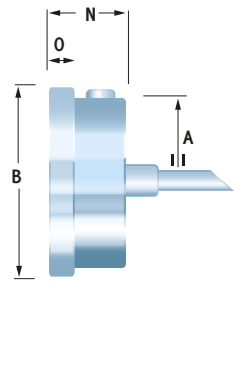
Rigid stem thermometers



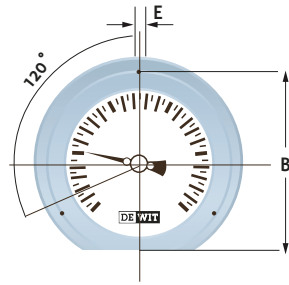
Type 5000



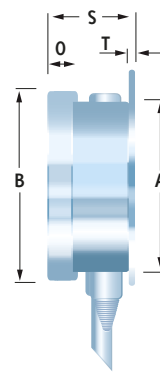
Type 5100



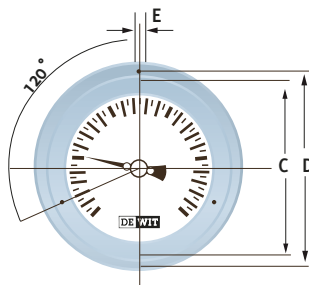
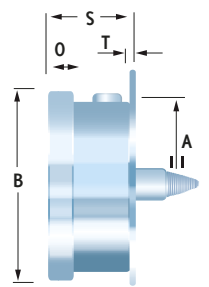
Remote reading thermometers



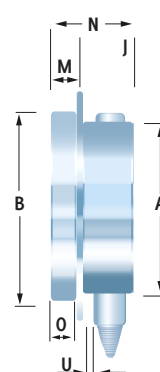
Type 5500



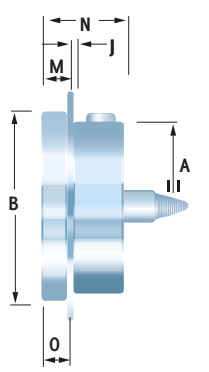
Type 5600



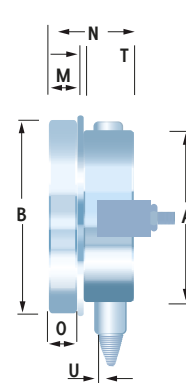
Type 5550



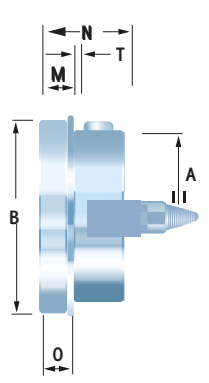
Type 5650



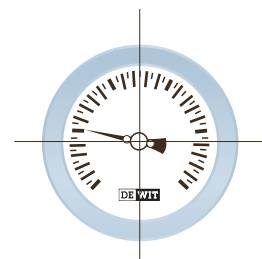
Type 5700



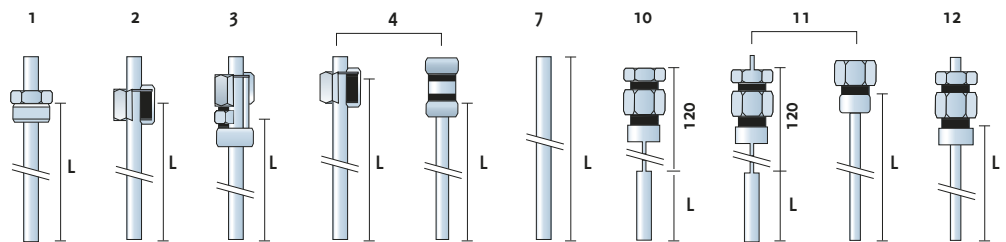
Type 5800



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



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

How to order

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

All dimensions are for reference only and subject to change

IFG DE WIT BV

P.O. Box 52, 9300 AB RODEN
The Netherlands

Phone: 00 31 (0)50 501 76 76

Fax: 00 31 (0)50 501 36 50

Website: www.ifgdewit.nl