

Sensing Bulb/Scale/Capillary Length Combinations for 20, 25, A20 and A25 Series Temperature Swichgage® and Murphygage® Instruments

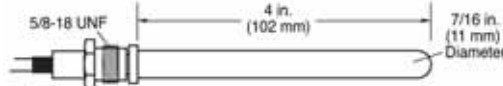
APPLICATION NOTE: Murphy vapor pressure actuated temperature Swichgage and Murphygage instruments indicate the temperature as measured at the sensing bulb. If the sensing bulb is not fully immersed in the medium being measured, an inaccurate reading will occur. This is particularly important when applying bulb types “C”, “F” and “H” since the attaching nut can be positioned at various depths along the length of the sensing bulb. For best results be sure that the sensing bulb is fully immersed. For further important details see appropriate installation sheet for Murphy temperature devices or contact a Murphy representative.

NOTE:

- Bulb Type A, B, E & K are provided as standard on T & TE series based on scale and capillary length.
- Bulb Type D is provided as standard on TL & TH series based on scale and capillary length.
- Bulb Type J is provided as standard on TJD series.
- Any bulb used where it is standard, based on model, scale and capillary length, must not be specified in the Model Number. Any bulb used where it is not standard must be specified in the Model Number.

Bulb Type	Bulb Dimensions	Adaptor Nut Group	Thermowell Group	Capillary Tube Length	Temperature Ranges	
					°F	°C
A	<p>Standard bulb 20BTG, 20/25T, A20/25T 10050166</p>	1	I	2-30 feet (0.61-9.14 meters)	130-220, 130-250, 140-300, 160-320, 180-350, 300-440	54-104, 54-121, 60-149, 71-160, 82-177, 149-227
				2-7 feet (0.61-2.13 meters)	32-120, 32-160	0-49, 0-71
B	<p>Standard bulb 20BTG, 20/25T, A20/25T 10010061</p>	2	II	31-80 feet (9.45-24.39 meters)	130-220, 130-250, 140-300, 160-320, 180-350, 300-440	54-104, 54-121, 60-149, 71-160, 82-177, 149-227
				8-23 feet (2.43-7.01 meters)	32-120, 32-160	0-49, 0-71
C*	<p>Optional bulb 10010060</p>	3	-	2-25 feet (0.61-7.62 meters)	130-220, 130-250, 140-300, 160-320, 180-350	54-104, 54-121, 60-149, 71-160, 82-177
				2-4 feet (0.61-1.21 meters)	300-440	149-227
D†	<p>Standard bulb 20/25TL, A20/25TL, 20/25TH, A20/25TH 10000286</p>	4	IV	2-16 feet (0.61-4.88 meters)	130-220, 130-250, 140-300, 160-320, 180-350	54-104, 54-121, 60-149, 71-160, 82-177
				2-4 feet (0.61-1.21 meters)	300-440	149-227
E	<p>Standard bulb 20BTG, 20/25T, A20/25T 10010084</p>	2	III	24-35 feet (7.32-10.67 meters)	32-120, 32-160	0-49, 0-71
				81-110 feet (24.69-33.53 meters)	30-220, 130-250, 140-300, 160-320, 180-350, 300-440	54-104, 54-121, 60-149, 71-160, 82-177, 149-227
F	<p>Optional bulb 10000577</p>	3	-	16-25 feet (4.88-7.62 meters)	130-220, 130-250, 140-300, 160-320	54-104, 54-121, 60-149, 71-160
G	<p>Optional bulb 10000578</p>	4	-	17-25 feet (5.18-7.62 meters)	30-220, 130-250, 140-300, 160-320	54-104, 54-121, 60-149, 71-160
H	<p>Optional bulb 10002466</p>	3	IV	2-25 feet (0.61-7.62 meters)	130-220, 130-250, 140-300, 160-320, 180-350	54-104, 54-121, 60-149, 71-160, 82-177
				2-4 feet (0.61-1.21 meters)	300-440	149-227
J	<p>Standard bulb 20/25TJD, A20/25TJD 10051153</p>	3 and Part No. 85030447	-	2-12 feet (0.61-3.66 meters)	130-250	54-121

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Bulb Type	Bulb Dimensions	Adaptor Nut Group	Thermowell Group	Capillary Tube Length	Temperature Ranges	
					°F	°C
K	 <p>Standard bulb 20/25T, A20/25T 10004886</p>	2	—	36-50 feet (10.97-15.24 meters)	32-120 32-160	0-49 0-71

* Standard bulb for bearing temperature models (example 20TB).

† Standard bulb for aircooled engine models (example 20TH) and Ford worldwide engines (example 20TL).

Consult factory for non-listed options and combinations.

Optional Adaptor Group			
PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
Group 1		Group 2	
10050167	1/4-18 NPT	10050103	3/8-18 NPT
10050069	3/8-18 NPT	10050107	1/2-14 NPT
10050284	3/8-19 BSPT	10050827	3/4-14 NPT
10050131	1/2-14 NPT	10050695	7/8-9 UNF
10050330	1/2-14 BSPT	10002447	22 mm x 1.5
10050068	5/8-18 UNF	Group 3	
10050105	3/4-14 NPT	10010052	1/8-27 NPT
10050093	7/8-9 UNC	10010051	10 mm x 1.5
10002442	14 mm x 1.5	10005235	10 mm x 1.0
10002444	16 mm x 1.5	Group 4	
10002443	18 mm x 1.5	10050912	1/8-27 NPT
10002446	20 mm x 1.5	10002450	10 mm x 1.5
10002445	22 mm x 1.5	10002451	12 mm x 1.5
10002449	24 mm x 1.5		

Optional Thermowells	
PART NO.	DESCRIPTION
Group I	
10010009	1/2-14 NPT, Carbon Steel, Nickel Plate
10050128	1/2-14 NPT, 304 Stainless Steel
10050899	1/2-14 NPT, Carbon Steel, Nickel Plate
10000425	7/8-9 UNC, Carbon Steel, Nickel Plate
Group II	
10050169	1/2-14 NPT, 304 Stainless Steel
Group III	
10050900	1/2-14 NPT, Carbon Steel, Nickel Plate
10050901	1/2-14 NPT, 304 Stainless Steel

Warranty - A limited warranty on materials and workmanship is given with this FW Murphy product.
A copy of the warranty may be viewed or printed by going to <http://www.fwmurphy.com/warranty>