

● Features:

- * Case length 4.5"(110mm), 6"(150mm), or 8"(200mm)
- * Offers ruggedness and durability in harsh industrial environments
- * Brass socket 1/2" NPT is standard (stainless steel optional)
- * Available in either a straight model (bottom connection), 90° angle model or 135° angle model
- * ASME B40.200 compliant
- * 5 year warranty

● Applications:

- * HVAC Heating, plumbing, air conditioning and ventilation applications

Specifications	
Scale	Aluminum, black markings
Case Material	Aluminum with golden anodized, Nylon with golden or black powder-coated
Case Size	4.5"(110mm), 6"(150mm), 8"(200mm)
Glass Tube	Prismatic or cushioned
Liquid Filling	Blue or red organism (from -140°F to 400°F) Mercury (above 400°F)
Stem Material	Brass, lead free brass, stainless steel, CuNi ₁₀ Fe etc.
Stem Length	1.5", 2", 2.5", 4", 6", 8", 10", 12" etc.
Connection	1/2" NPT (1/2" BSP optional)
Swivel Nut	Brass (SS optional) (swivel and stem one unit, fixed by M6 screw)
Ambient Temperature	-140°F to 1100°F (-60°C to 600°C)
Operating Temperature	Maximum 80% of full scale value recommended
Accuracy	±2% of full scale
Enclosure Rating	Ip65



● Option Explanation:

1. For all the following options, need special instructions in writing.

- * Stem material is Lead free brass, SS304, SS316 or CuNi₁₀Fe etc.
- * Glass capillary is Prismatic or Cushioned.
- * Filling liquid is with Blue or Red colour.

2. All the product codes in following sheets don't include above option items.

● TVI-110 Series, 4.5"(110mm) Case

Product Code (Dual Scale F&C)

Case Length	4.5" (110mm)							
Case Shape	Straight					90° Angle		
Stem Length	1.5"	2"	2.5"	4"	6"	1.5"	2"	2.5"
-40/110°F & -40/40°C	V11S151F	V11S21F	V11S251F	V11S41F	V11S61F	V11A1151F	V11A121F	V11A1251F
0/120°F & -15/50°C	V11S152F	V11S22F	V11S252F	V11S42F	V11S62F	V11A1152F	V11A122F	V11A1252F
0/160°F & -15/70°C	V11S153F	V11S23F	V11S253F	V11S43F	V11S63F	V11A1153F	V11A123F	V11A1253F
30/180°F & 0/80°C	V11S154F	V11S24F	V11S254F	V11S44F	V11S64F	V11A1154F	V11A124F	V11A1254F
30/240°F & 0/115°C	V11S155F	V11S25F	V11S255F	V11S45F	V11S65F	V11A1155F	V11A125F	V11A1255F
30/300°F & 0/150°C	V11S156F	V11S26F	V11S256F	V11S46F	V11S66F	V11A1156F	V11A126F	V11A1256F

Case Length	4.5" (110mm)						
Case Shape	90° Angle		135° Angle				
Stem Length	4"	6"	1.5"	2"	2.5"	4"	6"
-40/110°F & -40/40°C	V11A141F	V11A161F	V11A2151F	V11A221F	V11A2251F	V11A241F	V11A261F
0/120°F & -15/50°C	V11A142F	V11A162F	V11A2152F	V11A222F	V11A2252F	V11A242F	V11A262F
0/160°F & -15/70°C	V11A143F	V11A163F	V11A2153F	V11A223F	V11A2253F	V11A243F	V11A263F
30/180°F & 0/80°C	V11A144F	V11A164F	V11A2154F	V11A224F	V11A2254F	V11A244F	V11A264F
30/240°F & 0/115°C	V11A145F	V11A165F	V11A2155F	V11A225F	V11A2255F	V11A245F	V11A265F
30/300°F & 0/150°C	V11A146F	V11A166F	V11A2156F	V11A226F	V11A2256F	V11A246F	V11A266F

● TVI-110 Series, 4.5"(110mm) Case

Product Code (Dual Scale C&F or Single Scale °C)

Case Length	4.5" (110mm)							
Case Shape	Straight					90° Angle		
Stem Length	1.5"	2"	2.5"	4"	6"	1.5"	2"	2.5"
-60/40°C & -80/100°F	V11S151C	V11S21C	V11S251C	V11S41C	V11S61C	V11A1151C	V11A121C	V11A1251C
-30/50°C & -20/120°F	V11S152C	V11S22C	V11S252C	V11S42C	V11S62C	V11A1152C	V11A122C	V11A1252C
0/60°C & 20/140°F	V11S153C	V11S23C	V11S253C	V11S43C	V11S63C	V11A1153C	V11A123C	V11A1253C
0/100°C & 30/210°F	V11S154C	V11S24C	V11S254C	V11S44C	V11S64C	V11A1154C	V11A124C	V11A1254C
0/120°C & 50/250°F	V11S155C	V11S25C	V11S255C	V11S45C	V11S65C	V11A1155C	V11A125C	V11A1255C
0/160°C & 50/300°F	V11S156C	V11S26C	V11S256C	V11S46C	V11S66C	V11A1156C	V11A126C	V11A1256C
0/200°C & 50/400°F	V11S157C	V11S27C	V11S257C	V11S47C	V11S67C	V11A1157C	V11A127C	V11A1257C

Case Length	4.5" (110mm)						
Case Shape	90° Angle		135° Angle				
Stem Length	4"	6"	1.5"	2"	2.5"	4"	6"
-60/40°C & -80/100°F	V11A141C	V11A161C	V11A2151C	V11A221C	V11A2251C	V11A241C	V11A261C
-30/50°C & -20/120°F	V11A142C	V11A162C	V11A2152C	V11A222C	V11A2252C	V11A242C	V11A262C
0/60°C & 20/140°F	V11A143C	V11A163C	V11A2153C	V11A223C	V11A2253C	V11A243C	V11A263C
0/100°C & 30/210°F	V11A144C	V11A164C	V11A2154C	V11A224C	V11A2254C	V11A244C	V11A264C
0/120°C & 50/250°F	V11A145C	V11A165C	V11A2155C	V11A225C	V11A2255C	V11A245C	V11A265C
0/160°C & 50/300°F	V11A146C	V11A166C	V11A2156C	V11A226C	V11A2256C	V11A246C	V11A266C
0/200°C & 50/400°F	V11A147C	V11A167C	V11A2157C	V11A227C	V11A2257C	V11A247C	V11A267C



● TVI-150 Series, 6"(150mm) Case

Product Code (Dual Scale F&C)

Case Length	6" (150mm)							
Case Shape	Straight					90° Angle		
Stem Length	1.5"	2"	2.5"	4"	6"	1.5"	2"	2.5"
-40/110°F & -40/40°C	V15S151F	V15S21F	V15S251F	V15S41F	V15S61F	V15A1151F	V15A121F	V15A1251F
0/120°F & -15/50°C	V15S152F	V15S22F	V15S252F	V15S42F	V15S62F	V15A1152F	V15A122F	V15A1252F
0/160°F & -15/70°C	V15S153F	V15S23F	V15S253F	V15S43F	V15S63F	V15A1153F	V15A123F	V15A1253F
30/180°F & 0/80°C	V15S154F	V15S24F	V15S254F	V15S44F	V15S64F	V15A1154F	V15A124F	V15A1254F
30/240°F & 0/115°C	V15S155F	V15S25F	V15S255F	V15S45F	V15S65F	V15A1155F	V15A125F	V15A1255F
30/300°F & 0/150°C	V15S156F	V15S26F	V15S256F	V15S46F	V15S66F	V15A1156F	V15A126F	V15A1256F

Case Length	6" (150mm)						
Case Shape	90° Angle		135° Angle				
Stem Length	4"	6"	1.5"	2"	2.5"	4"	6"
-40/110°F & -40/40°C	V15A141F	V15A161F	V15A2151F	V15A221F	V15A2251F	V15A241F	V15A261F
0/120°F & -15/50°C	V15A142F	V15A162F	V15A2152F	V15A222F	V15A2252F	V15A242F	V15A262F
0/160°F & -15/70°C	V15A143F	V15A163F	V15A2153F	V15A223F	V15A2253F	V15A243F	V15A263F
30/180°F & 0/80°C	V15A144F	V15A164F	V15A2154F	V15A224F	V15A2254F	V15A244F	V15A264F
30/240°F & 0/115°C	V15A145F	V15A165F	V15A2155F	V15A225F	V15A2255F	V15A245F	V15A265F
30/300°F & 0/150°C	V15A146F	V15A166F	V15A2156F	V15A226F	V15A2256F	V15A246F	V15A266F

● TVI-150 Series, 6"(150mm) Case

Product Code (Dual Scale C&F or Single Scale °C)

Case Length	6" (150mm)							
Case Shape	Straight					90° Angle		
Stem Length	1.5"	2"	2.5"	4"	6"	1.5"	2"	2.5"
-60/40°C & -80/100°F	V15S151C	V15S21C	V15S251C	V15S41C	V15S61C	V15A1151C	V15A121C	V15A1251C
-30/50°C & -20/120°F	V15S152C	V15S22C	V15S252C	V15S42C	V15S62C	V15A1152C	V15A122C	V15A1252C
0/60°C & 20/140°F	V15S153C	V15S23C	V15S253C	V15S43C	V15S63C	V15A1153C	V15A123C	V15A1253C
0/100°C & 30/210°F	V15S154C	V15S24C	V15S254C	V15S44C	V15S64C	V15A1154C	V15A124C	V15A1254C
0/120°C & 50/250°F	V15S155C	V15S25C	V15S255C	V15S45C	V15S65C	V15A1155C	V15A125C	V15A1255C
0/160°C & 50/300°F	V15S156C	V15S26C	V15S256C	V15S46C	V15S66C	V15A1156C	V15A126C	V15A1256C
0/200°C & 50/400°F	V15S157C	V15S27C	V15S257C	V15S47C	V15S67C	V15A1157C	V15A127C	V15A1257C
0/300°C & 50/550°F	/	/	V15S258C	V15S48C	V15S68C	/	/	V15A1258C
0/400°C & 50/750°F	/	/	V15S259C	V15S49C	V15S69C	/	/	V15A1259C
0/500°C & 50/950°F	/	/	V15S2510C	V15S410C	V15S610C	/	/	V15A12510C
0/600°C & 100/1100°F	/	/	V15S2511C	V15S411C	V15S611C	/	/	V15A12511C

Case Length	6" (150mm)						
Case Shape	90° Angle		135° Angle				
Stem Length	4"	6"	1.5"	2"	2.5"	4"	6"
-60/40°C & -80/100°F	V15A141C	V15A161C	V15A2151C	V15A221C	V15A2251C	V15A241C	V15A261C
-30/50°C & -20/120°F	V15A142C	V15A162C	V15A2152C	V15A222C	V15A2252C	V15A242C	V15A262C
0/60°C & 20/140°F	V15A143C	V15A163C	V15A2153C	V15A223C	V15A2253C	V15A243C	V15A263C
0/100°C & 30/210°F	V15A144C	V15A164C	V15A2154C	V15A224C	V15A2254C	V15A244C	V15A264C
0/120°C & 50/250°F	V15A145C	V15A165C	V15A2155C	V15A225C	V15A2255C	V15A245C	V15A265C
0/160°C & 50/300°F	V15A146C	V15A166C	V15A2156C	V15A226C	V15A2256C	V15A246C	V15A266C
0/200°C & 50/400°F	V15A147C	V15A167C	V15A2157C	V15A227C	V15A2257C	V15A247C	V15A267C
0/300°C & 50/550°F	V15A148C	V15A168C	/	/	V15A2258C	V15A248C	V15A268C
0/400°C & 50/750°F	V15A149C	V15A169C	/	/	V15A2259C	V15A249C	V15A269C
0/500°C & 50/950°F	V15A1410C	V15A1610C	/	/	V15A22510C	V15A2410C	V15A2610C
0/600°C & 100/1100°F	V15A1411C	V15A1611C	/	/	V15A22511C	V15A2411C	V15A2611C



● TVI-200 Series, 8"(200mm) Case

Product Code (Dual Scale F&C)

Case Length	8" (200mm)							
Case Shape	Straight					90° Angle		
Stem Length	1.5"	2"	2.5"	4"	6"	1.5"	2"	2.5"
-40/110°F & -40/40°C	V20S151F	V20S21F	V20S251F	V20S41F	V20S61F	V20A1151F	V20A121F	V20A1251F
0/120°F & -15/50°C	V20S152F	V20S22F	V20S252F	V20S42F	V20S62F	V20A1152F	V20A122F	V20A1252F
0/160°F & -15/70°C	V20S153F	V20S23F	V20S253F	V20S43F	V20S63F	V20A1153F	V20A123F	V20A1253F
30/180°F & 0/80°C	V20S154F	V20S24F	V20S254F	V20S44F	V20S64F	V20A1154F	V20A124F	V20A1254F
30/240°F & 0/115°C	V20S155F	V20S25F	V20S255F	V20S45F	V20S65F	V20A1155F	V20A125F	V20A1255F
30/300°F & 0/150°C	V20S156F	V20S26F	V20S256F	V20S46F	V20S66F	V20A1156F	V20A126F	V20A1256F

Case Length	8" (200mm)						
Case Shape	90° Angle		135° Angle				
Stem Length	4"	6"	1.5"	2"	2.5"	4"	6"
-40/110°F & -40/40°C	V20A141F	V20A161F	V20A2151F	V20A221F	V20A2251F	V20A241F	V20A261F
0/120°F & -15/50°C	V20A142F	V20A162F	V20A2152F	V20A222F	V20A2252F	V20A242F	V20A262F
0/160°F & -15/70°C	V20A143F	V20A163F	V20A2153F	V20A223F	V20A2253F	V20A243F	V20A263F
30/180°F & 0/80°C	V20A144F	V20A164F	V20A2154F	V20A224F	V20A2254F	V20A244F	V20A264F
30/240°F & 0/115°C	V20A145F	V20A165F	V20A2155F	V20A225F	V20A2255F	V20A245F	V20A265F
30/300°F & 0/150°C	V20A146F	V20A166F	V20A2156F	V20A226F	V20A2256F	V20A246F	V20A266F

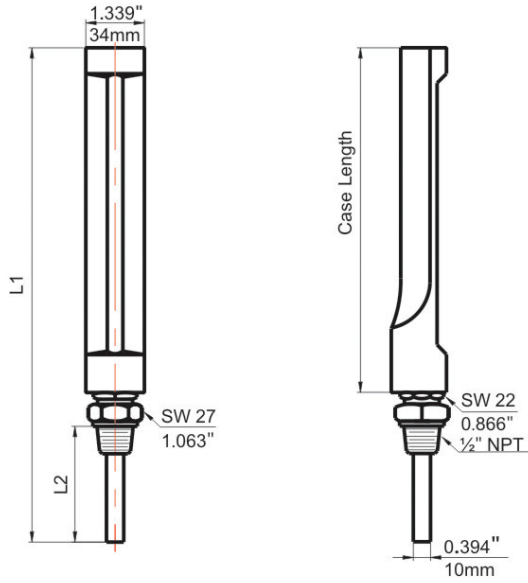
● TVI-200 Series, 8"(200mm) Case

Product Code (Dual Scale C&F or Single Scale °C)

Case Length	8" (200mm)							
Case Shape	Straight					90° Angle		
Stem Length	1.5"	2"	2.5"	4"	6"	1.5"	2"	2.5"
-60/40°C & -80/100°F	V20S151C	V20S21C	V20S251C	V20S41C	V20S61C	V20A1151C	V20A121C	V20A1251C
-30/50°C & -20/120°F	V20S152C	V20S22C	V20S252C	V20S42C	V20S62C	V20A1152C	V20A122C	V20A1252C
0/60°C & 20/140°F	V20S153C	V20S23C	V20S253C	V20S43C	V20S63C	V20A1153C	V20A123C	V20A1253C
0/100°C & 30/210°F	V20S154C	V20S24C	V20S254C	V20S44C	V20S64C	V20A1154C	V20A124C	V20A1254C
0/120°C & 50/250°F	V20S155C	V20S25C	V20S255C	V20S45C	V20S65C	V20A1155C	V20A125C	V20A1255C
0/160°C & 50/300°F	V20S156C	V20S26C	V20S256C	V20S46C	V20S66C	V20A1156C	V20A126C	V20A1256C
0/200°C & 50/400°F	V20S157C	V20S27C	V20S257C	V20S47C	V20S67C	V20A1157C	V20A127C	V20A1257C
0/300°C & 50/550°F	/	/	V20S258C	V20S48C	V20S68C	/	/	V20A1258C
0/400°C & 50/750°F	/	/	V20S259C	V20S49C	V20S69C	/	/	V20A1259C
0/500°C & 50/950°F	/	/	V20S2510C	V20S410C	V20S610C	/	/	V20A12510C
0/600°C & 100/1100°F	/	/	V20S2511C	V20S411C	V20S611C	/	/	V20A12511C

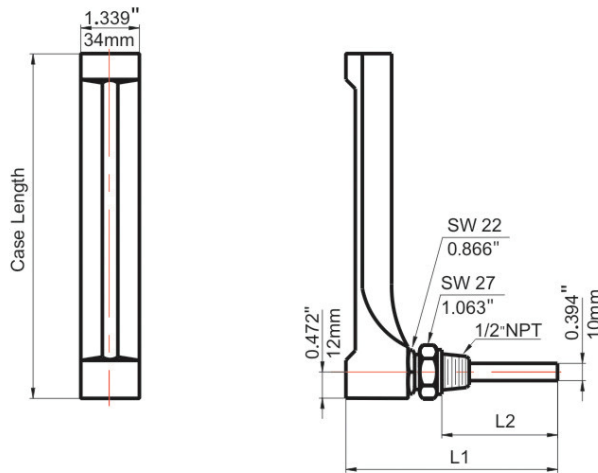
Case Length	8" (200mm)						
Case Shape	90° Angle		135° Angle				
Stem Length	4"	6"	1.5"	2"	2.5"	4"	6"
-60/40°C & -80/100°F	V20A141C	V20A161C	V20A2151C	V20A221C	V20A2251C	V20A241C	V20A261C
-30/50°C & -20/120°F	V20A142C	V20A162C	V20A2152C	V20A222C	V20A2252C	V20A242C	V20A262C
0/60°C & 20/140°F	V20A143C	V20A163C	V20A2153C	V20A223C	V20A2253C	V20A243C	V20A263C
0/100°C & 30/210°F	V20A144C	V20A164C	V20A2154C	V20A224C	V20A2254C	V20A244C	V20A264C
0/120°C & 50/250°F	V20A145C	V20A165C	V20A2155C	V20A225C	V20A2255C	V20A245C	V20A265C
0/160°C & 50/300°F	V20A146C	V20A166C	V20A2156C	V20A226C	V20A2256C	V20A246C	V20A266C
0/200°C & 50/400°F	V20A147C	V20A167C	V20A2157C	V20A227C	V20A2257C	V20A247C	V20A267C
0/300°C & 50/550°F	V20A148C	V20A168C	/	/	V20A2258C	V20A248C	V20A268C
0/400°C & 50/750°F	V20A149C	V20A169C	/	/	V20A2259C	V20A249C	V20A269C
0/500°C & 50/950°F	V20A1410C	V20A1610C	/	/	V20A22510C	V20A2410C	V20A2610C
0/600°C & 100/1100°F	V20A1411C	V20A1611C	/	/	V20A22511C	V20A2411C	V20A2611C

● TVI Series Straight



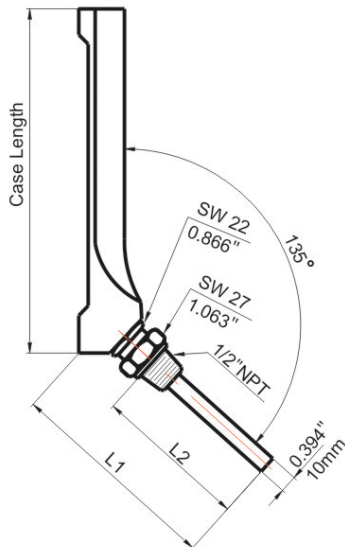
Case Length	L 1	L 2
4.5" (110mm)	1.5" (40mm)	6.656" (169mm)
	2" (50mm)	7.047" (179mm)
	2.5" (63mm)	7.559" (192mm)
	4" (100mm)	9.016" (229mm)
6" (150mm)	1.5" (40mm)	10.984" (279mm)
	2" (50mm)	8.228" (209mm)
	2.5" (63mm)	9.134" (232mm)
	4" (100mm)	10.591" (269mm)
8" (200mm)	1.5" (40mm)	12.559" (319mm)
	2" (50mm)	10.197" (259mm)
	2.5" (63mm)	10.591" (269mm)
	4" (100mm)	11.102" (282mm)
	6" (150mm)	14.528" (369mm)

● TVI Series 90° Angle



Case Length	L 1	L 2
4.5" (110mm)	1.5" (40mm)	3.346" (85mm)
	2" (50mm)	3.740" (95mm)
	2.5" (63mm)	4.252" (108mm)
	4" (100mm)	5.709" (145mm)
6" (150mm)	1.5" (40mm)	7.677" (195mm)
	2" (50mm)	3.346" (85mm)
	2.5" (63mm)	3.740" (95mm)
	4" (100mm)	4.252" (108mm)
8" (200mm)	1.5" (40mm)	5.709" (145mm)
	2" (50mm)	7.677" (195mm)
	2.5" (63mm)	3.346" (85mm)
	4" (100mm)	3.740" (95mm)
	6" (150mm)	4.252" (108mm)

● TVI Series 135° Angle



Case Length	L 1	L 2
4.5" (110mm)	1.5" (40mm)	3.110" (79mm)
	2" (50mm)	3.504" (89mm)
	2.5" (63mm)	4.016" (102mm)
	4" (100mm)	5.472" (139mm)
6" (150mm)	1.5" (40mm)	7.441" (189mm)
	2" (50mm)	3.110" (79mm)
	2.5" (63mm)	3.504" (89mm)
	4" (100mm)	4.016" (102mm)
8" (200mm)	1.5" (40mm)	5.472" (139mm)
	2" (50mm)	7.441" (189mm)
	2.5" (63mm)	3.110" (79mm)
	4" (100mm)	3.504" (89mm)
	6" (150mm)	4.016" (102mm)