WEISS INSTRUMENTS

Remote Reading Direct Mount

Light Powered Digital Thermometers

BiMetal Stem 1/4" ASME B40.3 Vapor Stem 7/16" ASME B40.4 Gas Stem 3/8" ASME B40.4





Weiss Instruments is pleased to introduce our new products. They are the digital versions of our most popular 5VBM Bimet Thermometer, V Series Vapor Dial and G Series Gas Dial Thermometers. The case, stem and thermal system configurations are the same or better except with light powered digital display. They can be considered direct replacements for existing installations and a more modern alternative for new requirements.

Weiss Instruments has been actively engaged in the design, development and manufacture of light powered digital thermometers and pressure gauges for decades. These latest products are a continuation of our lineup of the finest Digital Instruments.

- Bimetal Type Vari-angle with bimetal and industrial type stems. Both come in the same hermetically sealed case suitable for outdoor use.
- Vapor Type Dial Thermometers ranging in size from 21/2" to 41/2".
- Gas Type Dial Thermometers available in 31/2" and 41/2".

ALL INCLUSIVE RANGE (-50/300°F -45/150°C). That means that ordering by range is no longer necessary.

Order by dial size and system length only. Less items . . . less inventory.

FULL SCALE ACCURACY. The thermometer can be used anywhere within the range. No need to be concerned with the operating temperature.

STAINLESS STEEL SPIRAL INTERLOCKING ARMOR in place of copper braided capillary.

- No ambient error from temperature of the case or system. No elevation effect from the bulb being above or below the case.
- .1°F resolution up to 200°F. More readable from a distance. No reading error from viewing the gauge from any angle.
 - No possibility of a slow leak.
- °F/°C Switchable.
- No bulb size retrictions due to system lengths.



Light Powered Digital Vari-angle Thermometers - Bimetal Type



CASE SIZE & MATERIAL - 5" Hermetically Sealed St.St. **RANGE** -50 to 300°F (-45 to 150°C) with F/C switch

ACCURACY - 1%

WINDOW - Glass / Acrylic / Shatterproof Glass

LUX RATING - 10 Lux (one foot candle)

DISPLAY - 1/2" LCD Digits

RESOLUTION - 0.1°F between -19.9/199.9°F (-20/93°C)

AMBIENT OPERATING -30/140°F (-35/60°C)

AMBIENT TEMPERATURE ERROR - Zero

SENSOR - Glass Passivated Thermistor

RESET - Internal Potentiometer

STEM - Bimetal: 1/4" Diameter with Fixed 1/2" NPT Ind. Glass: 7/16" Tapered with 11/4"-18 jam nut

CONFORMANCE - ASME B40.3

® Vari-angle is a registered trademark of Weiss Instruments, Inc.

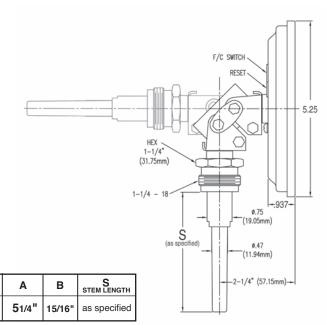
	5" DIAL	BIMETAL S	TEM
	Catalog No. 5" Vari-angle	Stem Length (incl. thread)	NPT
	5DVBM25 5DVBM4	21/2" 4"	1/2" 1/2"
	5DVBM6 5DVBM9	6" 9"	1/2" 1/2"
	5DVBM12	12"	1/2"
1	E" DIAL I	ND GLASS	CTEM
	5" DIAL I	ND. GLASS	STEM
		ND. GLASS Stem Length (incl. thread)	
	Catalog No. 5" Vari-angle 5DVU35	Stem Length (incl. thread)	Thread 1-1/4-18
	Catalog No. 5" Vari-angle	Stem Length (incl. thread) 31/2"	Thread

5DVBM BiMetal Stem

S+ 4-1/16" (103.18 mm)

7/8" (22.23mm) HEX 7/8" (22.23mm) 1/2 NPT S -1/4" (57.15mm)

5DVU35 Industrial Glass Stem



DIAL SIZE

5"

Light Powered Digital Thermometers - Vapor Type

CODE	CATALOG NO.	DESCRIPTION
I	DV25 DV35 DV45	CASE SIZE 2 1/2" Case 3 1/2" Case 4 1/2" Case
II	FUBOJQVRKN	Front Flange, Flush Mount 21/2" U Clamp, Flush Mount 21/2", 41/2" Back Flange, Surface Mount 21/2", 31/2", 41/2" Frt Flange, Bayonet Ring, Semi-Flush Mnt. 31/2" U Clamp, Semi-Flush Mount 31/2" U Clamp, Flush Mount 31/2" Vari-angle,® Direct Mount 31/2", 41/2" Semi-flush, Panel Mount 31/2", 41/2" Back Flange, Bayonet Ring, Stl. Steel 31/2", 41/2" Adjustable Bracket, Remote Mnt, Stl. Steel 31/2", 41/2"
III	A B L	CASE CONNECTION Adjustable Back Connection Lower Connection
IV	3 4 5 8 9	CASE WINDOW Snap in Lexan with "O" Ring (F,U,Q,V,B,R) Stainless Steel Ring & Glass (21/2" U,F - 31/2" J,K,S) Chrome Plated Brass, Glass (Q case only) Crimped Ring,Stl.Steel,Plastic or Glass-Waterproof (U) Threaded One Piece Lexan (F, U)
V	0 1 3 4 6	THERMAL SYSTEM Bulb Bulb Wire Max System Length Union Copper (Vari-angle only) — Plain Copper None(Wire) 5 Ft. Plain 316 S.S. Interlock Armor 25Ft. Union Copper Interlock Armor 25Ft. Union 316 S.S. Interlock Armor 25Ft.
VI	1 2 3 6 8*	BULB SELECTION Thermal System Union Conn. Thermal System Plain Bulb Max. System Len. Dia. Length Dia. Length 7/16 2.5" N.A. N.A. 25Ft. 7/16 3.4" 3/8 3.4 25Ft. 7/16 5.4" 3/8 4.9 25Ft. N.A. N.A. 3/8 2.5 25Ft. N.A. N.A. 1/4 1.8 5 Ft.
VII	1 2 3 4 7 9 *N *S	PROCESS CONNECTION FITTING Union Connection 1/2" NPT Union Connection 3/4" NPT Separable Socket 1/2" NPT Separable Socket 3/4" NPT Air Duct Flange, Union Conn., Aluminum only Plain bulb, no fitting Nickel-Plated Brass Stainless Steel
VIII	1 2 3 5 0 *B *S	PROCESS CONNECTION MATERIAL Brass 304 Stainless Steel 316 Stainless Steel Aluminum (Air Duct Flange only) None – Plain Bulb Brass Stainless Steel *only with No. 8 Bulb.
IX		SYSTEM LENGTH SPECIFYING 9A - Use 2 digits: EX. 05, 10, 25 for length required. 9B - Use FT for feet.

CASE SIZES - 21/2", 31/2", 41/2" Stainless Steel **RANGE** -50 to 300°F (-45 to 150°C) with F/C switch

ACCURACY - 1% WINDOW - Acrylic / Glass

LUX RATING - 10 Lux (one foot candle)

DISPLAY - 1/2" LCD Digits

STEM - 7/16" Diameter 5/8"-18 Jam Nut for NPT fittings 3/8" Diameter for Plain bulbs

RESET - Internal Potentiometer

RESOLUTION - 1/10% between -19.9/199.9°F (-20/93°C)

AMBIENT OPERATING -30/140°F (-35/60°C)

AMBIENT TEMPERATURE ERROR - Zero

SENSOR - Glass Passivated Thermistor

CONFORMANCE - ASME B40.4



DV45BB3 - Back Flange, Back Mount



DV45RB3 - Semi-flush, Panel Mnt.



DV35QB5 - U-Clamp, Panel Mount



Light Powered Digital Thermometers - Gas Type

CODE	CATALOG NO.	DESCRIPTION
I	DG35 DG45	CASE SIZE 31/2" Case 41/2" Case
II	BEFSUVK	CASE TYPE & MATERIAL Back Flange, Aluminum - 41/2" only Turret, Polypropylene* - 41/2" only Front Flange, Aluminum - 41/2" only Front Flange, Semi Flush, Bayonet Ring, St. St 31/2",41/2" U-Clamp, Bayonet Ring, Stainless Steel - 41/2" only Vari-angle,® Stainless Steel - 41/2" only Back Flange, Bayonet Ring, St. St 31/2",41/2"
		*Flush Mounting Ring available as Accessory
III	B L A	CASE CONNECTION Back Connection Lower Connection - (Not available on 3 1/2" K Case) Adjustable
IV	3 4 5	CASE WINDOW Acrylic Glass Shatterproof Glass - 41/2" only
V	0 1 X	THERMAL SYSTEM Bulb Bulb Capillary Protection Vari-angle 316 S.S. — — — — (Furnished with 1/2" NPT S.S. Swivel) Plain 316 S.S. 316 S.S. S.S.Spiral Armor Sliding Union 316 S.S. 316 S.S. S.S.Spiral Armor
	1	BULB SELECTION Plain Bulb - Remote Dia. Length 3/8 2.5" (Active) + 10" Rigid Ext.
VI	4 6 9 X	Vari-angle bulb Dia. To fit Thermowell with: OA Len. U Insertion 3/8 4" 4.25" 2.5" 3/8 6" 6.25" 4.5" 3/8 9" 9.25" 7.5" 3/8 12" 12.25" 10.5"
	7 8	Sliding union connection bulb with bendable extension Dia. Length Ext. Insertion Len. Union Thermowell - U 3/8 2.5"(Active) 12" 3 to 12" 2.5 to 10.5" 3/8 2.5"(Active) 18" 3 to 18" 2.5 to 16.5"
VII		SYSTEM LENGTH SPECIFYING 9A - Use 2 digits: EX. 05, 10, 25 for length required. 9B - Use FT for feet.

CASE SIZES - 31/2" and 41/2"

RANGE -50 to 300°F (-45 to 150°C) with F/C switch

ACCURACY - 1%

WINDOW - Acrylic / Glass / Shatterproof Glass

LUX RATING - 10 Lux (one foot candle)

DISPLAY - 1/2" LCD Digits

RESOLUTION - 1/10% between -19.9/199.9°F(-20/93°C)

AMBIENT OPERATING -30/140°F (-35/60°C)
AMBIENT TEMPERATURE ERROR - Zero

SENSOR - Glass Passivated Thermistor

RESET - Internal Potentiometer

STEM - 3/8" Diameter

Sliding Union (1/2" NPT) on bendable extension Direct Mount Vari-angle (1/2" NPT)

Plain bulbs

CONFORMANCE - ASME B40.4

DG45BL4

Back Flange, Surface Mount, Aluminum



DG45UB4 U-Clamp, Bayonet Ring, St.St.



DG45KB4

Back Flange, Bayonet Ring, St.St.



DG45VA4 - Vari-angle, St.St.



Light Powered NSF Remote Reading Thermometers





CASE: 1" x 4" Surface Mounting, Black or White MASK: Black or Silver Mask/Custom logo on request

RANGE: 40-0-160°F or 40-0-70°C factory set

DISPLAY: 3/8" LCD

LIGHT RATING: 30 Lux to 50,000 Lux

SENSOR LENGTH: 3 Ft. or 5 Ft.

ENVIRONMENT: Splash Proof (optional black or white gasket) ACCURACY: NSF Accuracy for food zone applications.

(±2°F between -20 to +60°F)

56SD



CASE: 2" Round Back (56mm Square Front)

MOUNTING: Front Flange or U-Clamp

RANGE: 40-0-230°F and 40-0-110°C (field switchable)

DISPLAY: 3/8" LCD (1/10°display up to 200°F)

LIGHT RATING: 15 Lux to 50,000 Lux

SENSOR LENGTH: 3 Ft. or 5 Ft.

ENVIRONMENT: Waterproof from Front

OPTIONS: U-Clamp Case, Model 56SD-U

ACCURACY: NSF Accuracy for food zone applications. $(1\% \text{ of reading } \pm 1^{\circ}\text{F or } \pm .5^{\circ}\text{C})$

72SD



CASE: 21/2" Round Back (72mm Square Front)

MOUNTING: Front Flange or U-Clamp

RANGE: 40-0-160°F or 40-0-70°C, factory set

DISPLAY: 1/2" LCD - 1/10° display **LIGHT RATING:** 30 Lux to 50,000 Lux

SENSOR LENGTH: 3 Ft. or 5 Ft.

ENVIRONMENT: Splash Proof (optional gasket) **OPTIONS:** U-Clamp Case, Model 72SD-U

ACCURACY: NSF Accuracy for food zone applications.

(±2°F between -20 to +60°F)

20SD



CASE: 2" Round, Stainless Steel

RANGE: 40-0-160°F or 40-0-70°C, factory set

DISPLAY: 3/8" LCD

LIGHT RATING: 50 Lux to 50,000 Lux BATTERY ASSIST: 50 Lux to 50,000 Lux 15 LUX @ 10 years

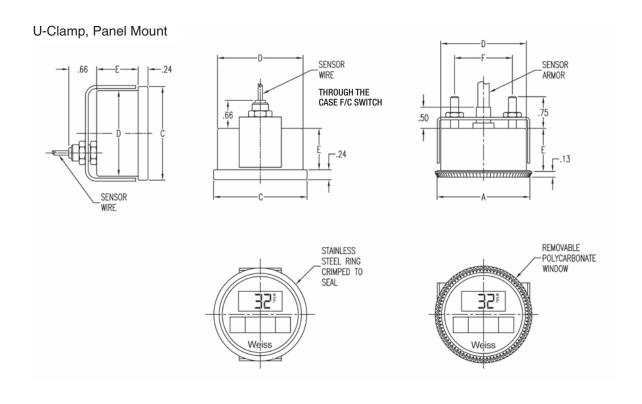
SENSOR LENGTH: 3 Ft. or 5 Ft.

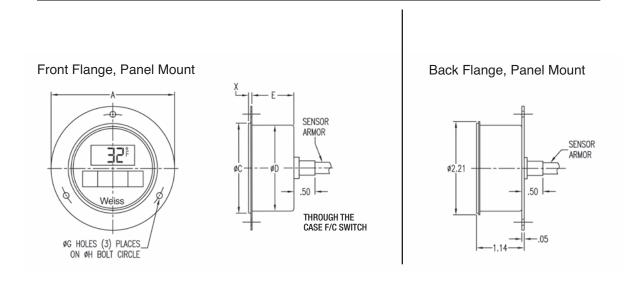
ENVIRONMENT: Splash Proof from the Front

ACCURACY: NSF Accuracy for food zone applications.

(±2°F between -20 to +60°F)

Digital Vapor Type Dimensions - 21/2"



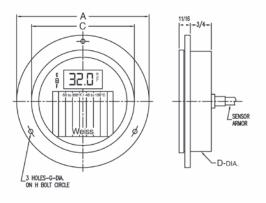


Case Dimensions

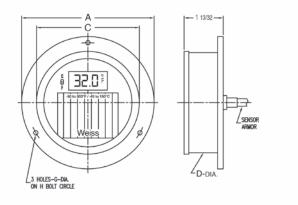
CASE SIZE	CASE TYPE	CODE	FLGE DIA.	RING O.D.	PANEL HOLE	DIA.	E	F	G	н	CASE FRONT CODE IV		
SIZE	TIPE	' '	Α	С	В	D					4	3	5
2-1/2"	U-CLAMP	DV25U	2.812	2.875	2.609	2.562	1.0	2.0	-	-	.187	.25	-
2-1/2"	FRONT FLGE	DV25F	3.687	2.875	2.609	2.562	1.0	_	.171	3.312	.187	.25	-
2-1/2"	FRONT FLGE	DV25S	3.687	2.875	2.656	2.640	.750	-	.171	3.312	.375	ı	-

Digital Vapor Type Dimensions - 31/2" and 41/2"

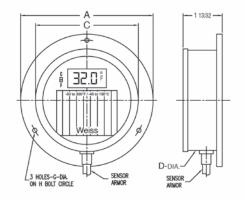
DV35RB3 - Semi Flush, Panel Mount



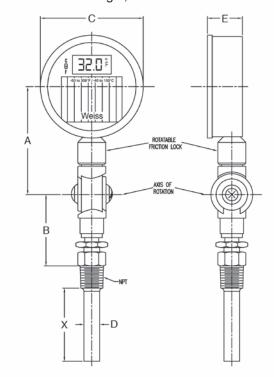
DV35BB3 - Surfacel Mount, Back Conn.



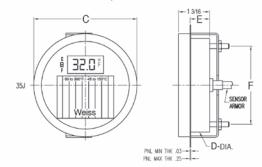
DV35BL3 - Surfacel Mount, Bottom Conn.



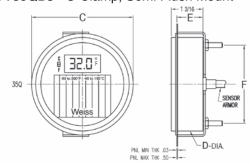
DV45VA - Vari-angle, Direct Mount



DV35JB4 - U-Clamp, Semi Flush Mount



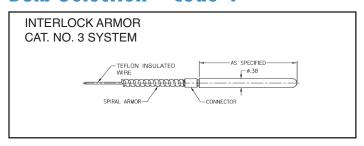
DV35QB3 - U-Clamp, Semi Flush Mount

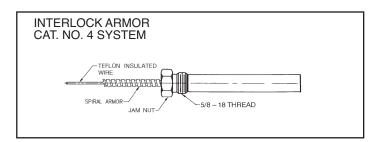


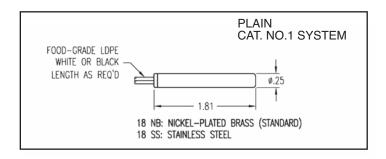
CASE	CASE	CODE	FLGE DIA.	RING O.D.	PANEL HOLE	DIA.	E	F	G	н	CASE	X FRONT	CODE IV
SIZE	TYPE	ı	Α	С	В	D					4	3	5
3-1/2"	FRONT FLGE	DV35S	4.75	3.96	3.62	3.59	.75	_	.15	4.31	.43	-	_
3-1/2"	FRONT FLGE	DV35K	4.75	3.96	_	3.59	-	_	.15	4.31			
3-1/2"	U-CLAMP	DV35J	_	3.96	3.62	3.59	.75	3.00	-	_	.43	-	_
3-1/2"	U-CLAMP	DV35Q	_	3.90	3.62	3.59	1.0	3.00	-	_	_	_	.125
3-1/2"	VARI-ANGLE	DV35V	3.87	3.68	2.56	.562	1.25	-	_	-	-	-	-
4-1/2"	FRONT FLGE	DV45B	5.87	4.68	4.62	4.59	-	_	.21	5.37	_	-	.125
4-1/2"	VARI-ANGLE	DV45V	4.37	4.68	2.56	.562	1.25	_	_	_			

Vapor Type Thermal Systems & Bulb Selection

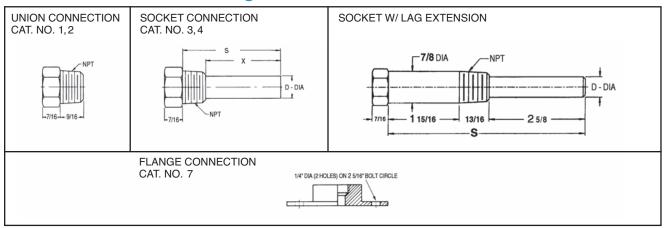
Bulb Selection - Code V







Process Connection Fittings - Code VII



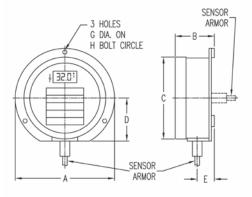
Bulb Dimensions

	PLA CONNE		UNION CONNECTION			SOCKET CONNECTION			FLANGE CONNECTION	
(CODE VI)	L	D	Х	S	D	Х	S	D	х	D
1	N/A	N/A	1- 13/16	2-3/8	7/16	1 -15/16	2-1/2	9/16	2-3/16	7/16
2	3-7/16	3/8	2-5/8	3-3/8	7/16	2-5/8	3-3/8	9/16	3	7/16
6	2-1/2	3/8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8	3	5/16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

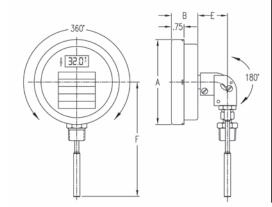
NOTE: "X" for Flange Conn. is the Insertion Length from Tip of Bulb to Face of Flange.

Digital Gas Type Dimensions

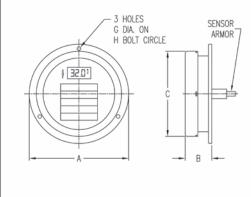
B - Back Flange, Aluminum



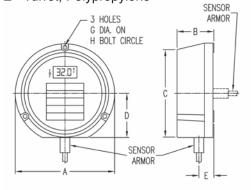
V - Vari-angle, Stainless Steel



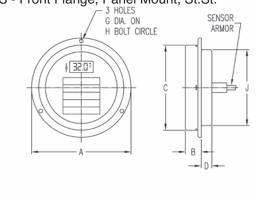
K - Back Flange, Stainless Steel



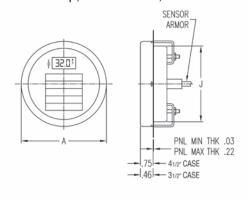
E - Turret, Polypropylene



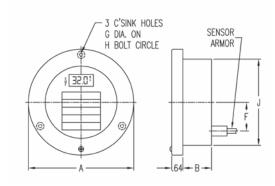
S - Front Flange, Panel Mount, St.St.



U - U-Clamp, Panel Mount, St.St.

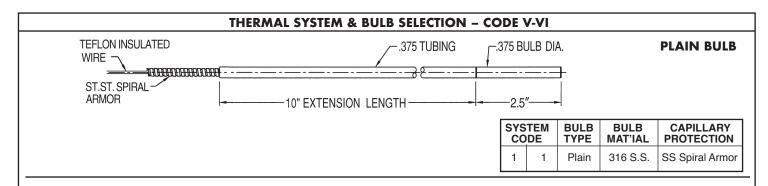


F - Front Flange, Hinged Ring, Aluminum



	CASE DIMENSIONS											
CASE SIZE	CASE TYPE	CODE I & II	FLGE DIA. A	В	RING O.D.	D	E	F	G	Н	J	
3 1/2"	Front Flange	DG35S	4.78	.40	3.95	.80	_	_	.16	4.31	3.60	
3 1/2"	U-Clamp	DG35U	3.97	_	_	_	.75	_	_	_	3.60	
3 1/2"	Back Flange	DG35K	4.78	1.40	3.97	_	1.0	_		4.31	_	
4 1/2"	Back Flange	DG45B	5.88	1.57	5.05	_	_	_	.22	5.38		
4 1/2"	Polypropylene	DG45E	5.83	2.15	5.08	2.62	.875	_	.24	5.39		
4 1/2"	Front Flange	DG45F	5.88	.94	5.05	.63	—	_	.22	5.38	4.54	
4 1/2"	Vari-angle	DG45V	5.04	1.57			1.75	6.81				
4 1/2"	Front Flange	DG45S	5.88	.94	5.05	.63			.22	5.38	4.54	
4 1/2"	U-Clamp	DG45U	5.05			_					4.54	
4 1/2"	Back Flange	DG45K	5.88	1.57	5.05	_			.22	5.38		

Gas Type Thermal Systems & Bulb Selection





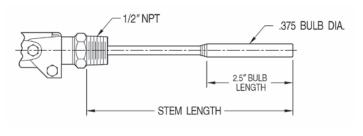
-EXTENSION LENGTH-

Thermowell is required for this Bulb Assy.

SYSTEM		EXT.	INSERT	ION U
CODE		LENGTH	UNION	T-WELL
Χ	7	12"	2.5 to 12"	2.5 to 10.5"
Χ	8	18"	2.5 to 18"	2.5 to 16.5"

2.5"-

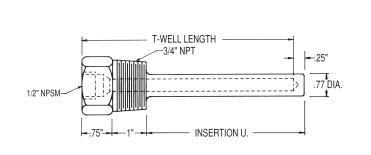
VARI-ANGLE

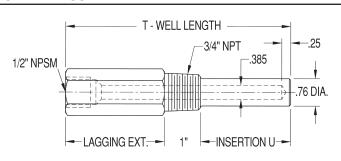


Thermowell is recommended for this Bulb Assy.

SYS	TEM	STEM	INSERTION U						
CODE		LENGTH	UNION	T-WELL					
0	4	4"	3.4"	2.5"					
0	6	6"	5.6"	4.5"					
0	9	9"	8.4"	7.5"					
0	Х	12"	11.4"	10.5"					
0	Υ	15"	13.4"	13.5"					
0 Z		18"	16.4"	16.5"					

PROCESS CONNECTION FITTINGS





THERMO	WELLS WITHOU	T LAGGING EX	KTENSION	THERMOWELLS WITH LAGGING EXTENSION								
CATALOG NO.*	T-WELL LENGTH	STEM LGTH.	CATALOG NO.*	T-WELL LENGTH	STEM LGTH.	LAG. EXT.	INSERTION U					
GT004-75	4.25"	4"	2.5"	GT206-75	6.25"	6"	2.75"	2.5"				
GT006-75	6.25"	6"	4.5"	GT309-75	9.25"	9"	3.75"	4.5"				
GT009-75	9.25"	9"	7.5"	GT312-75	12.25"	12"	3.75"	7.5"				
GT012-75	12.25"	12"	10.5"									

*Complete Catalog No. is obtained by adding 5 character designation for Thermowell Material. Ex: GT004-75-BRASS NOTE: also available in 1/2" and 1" NPT GT006-75-304SS GT009-75-316SS

Send for Weiss Literature to match your specific application.



SG-9/08

SSG-9/13 SMX-10/12 HVAC-11/10 PHC-1/15

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