WEKSLER®

Gas Actuated Thermometers – Selection Terms

RANGE

The maximum operating temperature should not exceed 75% of the full-scale range. The normal operating range should be in the middle half of the range (between 25% and 75% of the full-scale range); whenever possible.

ACCURACY

All Weksler gas actuated dial thermometers have an accuracy of ± 1% of the full-scale range. For accurate readings the entire sensitive portion of the bulb must be fully immersed into the medium being measured.

CASE

A wide variety of case styles and materials are offered. Determine how the thermometer is to be mounted: direct, surface (wall) or flush (in panel). Determine the desired case material: polypropylene, aluminum (black enameled) or stainless steel (300 series).

FACE

A gasketed glass window is standard. Where breakage is a concern, a plastic or shatterproof glass window is optional at extra cost. Plastic windows are not suitable where head temperature exceeds 150°F (65°C).

POINTER

All Weksler gas actuated thermometers have adjustable pointers. This permits pointer repositioning during calibration check or allows maximum precision at a selected point within the scale range.

MOUNTING

Weksler gas actuated thermometers are available in remote mounted types (with capillary tubing between case and sensing bulb) and direct mounted types (sensing bulb is attached directly to case). Remote mounted types allow the temperature to be read at a location remote from the actual temperature source. Remote mounting is also desirable to isolate the head (case, scale, pointer and internal parts) from the damaging effects of shock, vibration or excessive heat that may be present at the temperature source. Direct mounted thermometers are available in “adjust angle” types which allow the head of the thermometer to be positioned for the most desirable viewing angle. Direct mounted units are installed directly on pipes, tanks or other vessels.

BULB TYPES

Weksler gas actuated thermometers are available with various styles of plain bulbs or union connection bulbs. The bulb is the sensing element at the tip of the thermometer that reacts to temperature changes. The entire thermometer including the bulb, head assembly and capillary tubing (on remote types) is filled with an inert nitrogen gas offering fast response and linear dial graduations. Plain bulbs are those without threaded fittings for sensing air temperature or liquid temperatures in open tanks, vats, sinks, etc. Union connected bulbs have threaded swivel nuts that hold the bulb into a bulb fitting such as a thermowell, bushing or flange.

HIGH PRESSURE OR CORROSIVE APPLICATIONS

In these applications, use of a separable thermowell is recommended. In addition to protecting the thermometer, thermowells facilitate removal of the thermometer without having to shut down the system.

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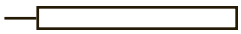
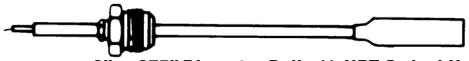
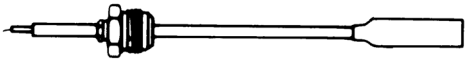
Gas Actuated Thermometers – How To Order

TABLE 1

REMOTE AND DIRECT MOUNTED TYPES		
BASE CATALOG NO.	DIAL SIZE	TYPE
413B	4½″	REMOTE MOUNTED
453B	4½″	ALL STAINLESS STEEL ADJUSTABLE ANGLE

TABLE 2 – BULB TYPE AND SIZE

FOR REMOTE MOUNT TYPES

	CODE
PLAIN BULB FOR AIR TEMPERATURE  13″ Long .375 Diameter	A
PLAIN BULB FOR LIQUIDS IN OPENTANKS, VATS, SINKS, ETC.  6″ Long .50″ Diameter *Only available with standard spring armor. Cannot exceed 40 ft. N/A with interlock armor.	C*
SLIDING UNION CONNECTION WITH 12″ BENDABLE EXTENSION  3″ x .375″ Diameter Bulb, ½ NPT Swivel Nut	3
 18″ Bendable	8
SLIDING UNION CONNECTION WITH 12″ BENDABLE EXTENSION  3″ x .625″ Diameter Bulb, 1″-20 NEF-2B Swivel Nut	N
 3½″ x .625″ Diameter Bulb, w/1″-20 NEF-2B Swivel Nut	J

FOR DIRECT MOUNT TYPES

⅜″ O.D. – ½″-14 NPSM Swivel Nut

Union Connection (fixed length)
Wells, bushings or flanges required for installation

CODE	STEM LENGTH	FITS WELL*
4	4″	4¼″ O.A.
6	6″	6½″ O.A.
9	9″	9¼″ O.A.
2	12″	12¼″ O.A.

*Uses “K” Series Thermowells (See page 7)

TABLE 3 – CASE STYLES

WALL MOUNTED TYPES	
CODE	CASE TYPE
P	Molded Polypropylene, Turret Type standard
A	Aluminum, Rear Flange Black Aluminum Bayonet Ring Extra cost option
X	Stainless Steel, Rear Flange Stainless Steel Bayonet Ring Extra cost option
FLUSH PANEL MOUNTED STYLES	
V	Stainless Steel Case and Bayonet Ring Front Flange – Semi-Flush Mounting Extra cost option
W	Aluminum Case Hinged Front Plastic Bezel Extra cost option
DIRECT MOUNTED TYPES	
CODE	CASE TYPE
Y	Stainless Steel, Flangeless Stainless Steel Bayonet Ring Standard on base catalog No. 453B

TABLE 4

CONNECTION LOCATION	AVAILABILITY	
CODE	ALL SS ADJUSTABLE ANGLE	REMOTE MOUNT
C = Center Back	•	
L = Lower		•
R = Rear		•

TABLE 5

CODE	CAPILLARY TYPE
S	Spring Armor
I	Interlock Armor*
X	None

*Required for lengths greater than 40 ft.

TABLE 6

CODE	LENGTH OF CAPILLARY TUBING LENGTHS UP TO 100´
00	None
02	2´
05	5´
10	10´

TABLE 7 – STANDARD RANGES

CODE	FAHRENHEIT
FR	–320/100
FS	–120/120
FC	–40/180
FF	0/120
FI	0/300
FL	20/240
FN	50/550
FO	50/750
FQ	400/1200

CODE	DUAL SCALE
DB	–40/180°F & –40/80°C
DC	–20/120°F & –80/50°C
DD	0/120°F & –15/50°C
DF	0/300°F & –10/150°C
DH	20/240°F & 0/110°C
DI	50/550°F & 10/290°C
DP	50/750°F & 0/400°C
DQ	400/1200°F & 200/650°C

TABLE 8 – OPTIONS

FEATURES	OPTION CODE
Plastic Lens	PD
Shatterproof Glass	SG
Movable Red Set Hand	SH
Markings on Dial	DM
Paper Tag Attached to Instrument	NN
Stainless Steel Tag Attached by Wire	NH

HOW TO ORDER

413B 3 P L S 05 FF ( )

1. Specify 4-digit Base Catalog No. from Table 1
2. Add Bulb Digit from Table 2
3. Add Case Style Digit from Table 3
4. Add Connection Location Digit from Table 4
5. Add Capillary Type Digit from Table 5 (enter “X” if none required)
6. Add Capillary Length Digit from Table 6 (enter “00” if none required)
7. Add Range Code Digits from Table 7
8. Add Optional Feature Code Digit from Table 8