



Bradford™ Gauges

Model Number Breakdown



Product Specifications

Size range:

- 1½", 2", 2½" or 3"

Material:

- 316L stainless steel

Finishes:

- 3A sanitary
- pharmaceutical

Ordering Information

Series

- 3S**3½" Sanitary pressure gauge
5S5" Sanitary pressure gauge
3P3½" Pharmaceutical pressure gauge
5P5" Pharmaceutical pressure gauge

Pressure Range *

- B**0 to 30 PSI (2 BAR)
C0 to 60 PSI (4 BAR)
D0 to 100 PSI (7 BAR)
E0 to 160 PSI (11 BAR)
F0 to 200 PSI (14 BAR)
G0 to 300 PSI (21 BAR)
H0 to 400 PSI (28 BAR)
I0 to 600 PSI (41 BAR)
K0 to 1,000 PSI (70 BAR)

* Standard scales are in PSI only. For dual scales, add the letter B for PSI/BAR after the pressure range letter.

Fitting Type *

specify size in inches: 15, 2, 25 or 3

- I**male I-Line
Jfemale I-Line
RRJT
S#15 Bevel Seat sanitary male thread
T#13H captive nut and #14 Bevel Seat
Uclamp
DINDIN according to DIN 11851 (*specify DIN40 or DIN50*)
SMSSMS (*specify SMS38 or SMS51*)

* specify size then type, i.e. 1½" = 15

Filled Case

- GF**glycerine filled
NFno fill (dry)

Mount type

- BT**bottom
RTright side
LFleft side
TPtop
BKback

Diaphragm Material

- SS**stainless steel

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Sanitary Pressure Gauges

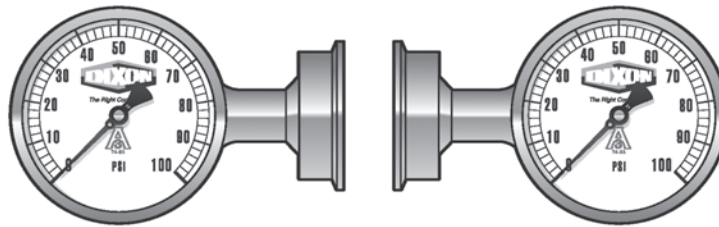
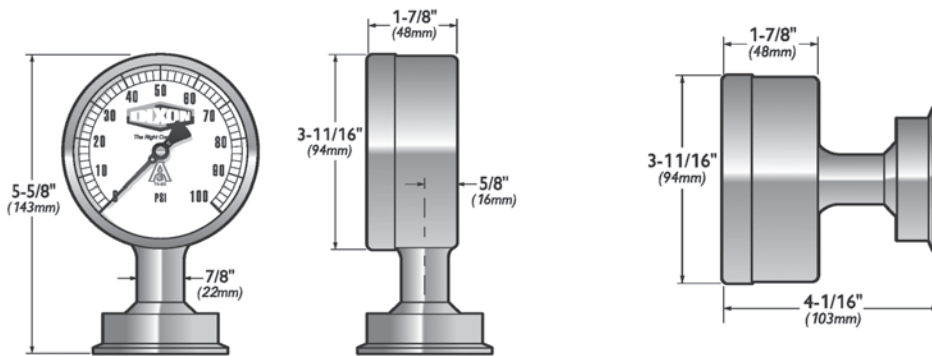
Product Specifications:

- accuracy: $\pm 1.5\%$ of full scale
- over range capacity: 30%
- wetted surfaces: 316L stainless steel
- surface finishes (wetted parts): R_a max = 25 microinches
- case material: 304 stainless steel
- dial size: $3\frac{1}{2}$ " or 5" diameter
- lens material: polycarbonate
- temperature limits: 0°F (-18°C) to 250°F (121°C)
- standard fill: food grade glycerin
- rezero feature: standard on pointer
- shipping weight: approximately 3 lbs. (1.3 kg)

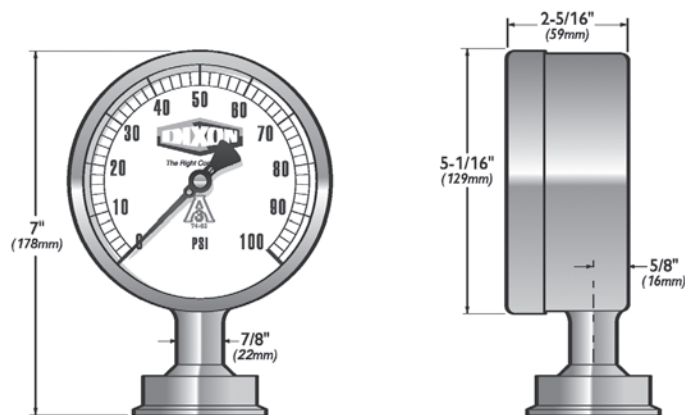


3S-EB-2U-GFBTSS

$3\frac{1}{2}$ " Gauge - (90 mm)



5" Gauge - (120 mm)



shown with 2" clamp

Sanitary Pressure Gauges



Part #	Dial Size	Pressure Range (PSI)	Clamp Size	Mount
3S-B-15U-GFBTSS	3.5"	0-30	1½"	bottom
3S-C-15U-GFBTSS	3.5"	0-60	1½"	bottom
3S-D-15U-GFBTSS	3.5"	0-100	1½"	bottom
3S-E-15U-GFBTSS	3.5"	0-160	1½"	bottom
3S-F-15U-GFBTSS	3.5"	0-200	1½"	bottom
3S-G-15U-GFBTSS	3.5"	0-300	1½"	bottom
3S-B-15U-GFBKSS	3.5"	0-30	1½"	back
3S-C-15U-GFBKSS	3.5"	0-60	1½"	back
3S-D-15U-GFBKSS	3.5"	0-100	1½"	back
3S-E-15U-GFBKSS	3.5"	0-160	1½"	back
3S-F-15U-GFBKSS	3.5"	0-200	1½"	back
3S-G-15U-GFBKSS	3.5"	0-300	1½"	back
3S-B-2U-GFBTSS	3.5"	0-30	2"	bottom
3S-C-2U-GFBTSS	3.5"	0-60	2"	bottom
3S-D-2U-GFBTSS	3.5"	0-100	2"	bottom
3S-E-2U-GFBTSS	3.5"	0-160	2"	bottom
3S-F-2U-GFBTSS	3.5"	0-200	2"	bottom
3S-G-2U-GFBTSS	3.5"	0-300	2"	bottom
3S-B-2U-GFBKSS	3.5"	0-30	2"	back
3S-C-2U-GFBKSS	3.5"	0-60	2"	back
3S-D-2U-GFBKSS	3.5"	0-100	2"	back
3S-E-2U-GFBKSS	3.5"	0-160	2"	back
3S-F-2U-GFBKSS	3.5"	0-200	2"	back
3S-G-2U-GFBKSS	3.5"	0-300	2"	back

Pharmaceutical Pressure Gauges

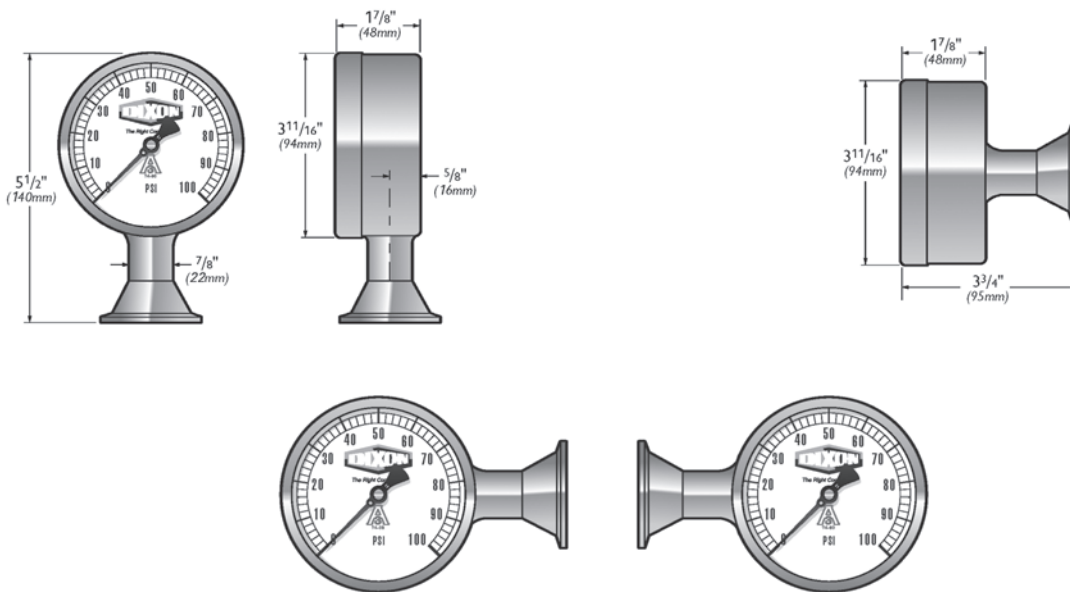
Product Specifications:

- accuracy: $\pm 0.75\%$ of full scale
- over range capacity: 30%
- wetted surfaces: 316L stainless steel
- surface finishes (wetted parts): R_a max = 8 microinches
- case material: 304 stainless steel
- dial size: $3\frac{1}{2}$ " or 5" diameter
- lens material: polycarbonate
- temperature limits: 0°F (-18°C) to 250°F (121°C)
- standard fill: food grade glycerin
- rezero feature: standard on pointer
- shipping weight: approximately 3 lbs. (1.3 kg)
- dial size: $3\frac{1}{2}$ " diameter

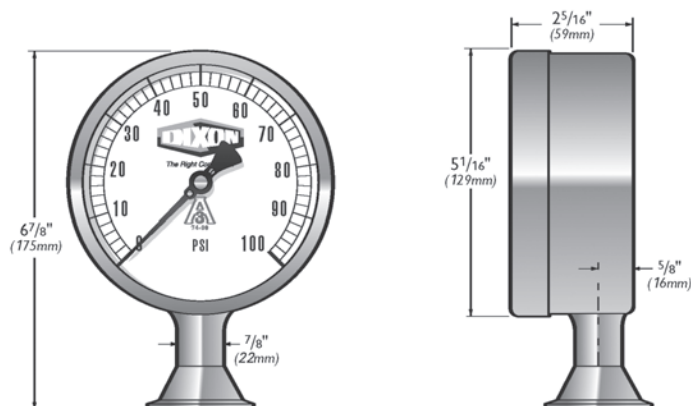


3P-D-15U-GFBT

$3\frac{1}{2}$ " Gauge - (90 mm)



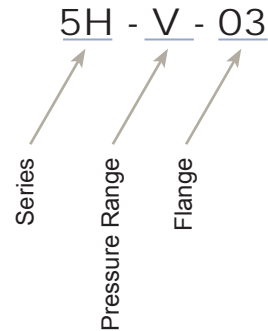
5" Gauge - (120 mm)



Homogenizer Pressure Gauges



Model Number Breakdown



Ordering Information

Series

5H5" Sani-Flow Homogenizer Pressure Gauge

Pressure Range *

K0 to 1,000 PSI (70 BAR)

T0 to 2,500 PSI (170 BAR)

U0 to 3,000 PSI (205 BAR)

V0 to 5,000 PSI (350 BAR)

Y0 to 7,500 PSI (520 BAR)

W0 to 10,000 PSI (700 BAR)

X0 to 15,000 PSI (1000 BAR)

Flange

01no flange

027/8" thick 2 bolt flange

031-1/8" thick 2 bolt flange

04Waukesha 1/2" thick 4 bolt flange

05Waukesha 3/4" thick 4 bolt flange

091.66" thick laboratory homogenizer flange

* Standard scales are in PSI only. For dual scales, after the pressure range add the letter B for PSI/BAR, K for PSI/Kg/cm³, P for PSI/KPa (see examples below).

Examples

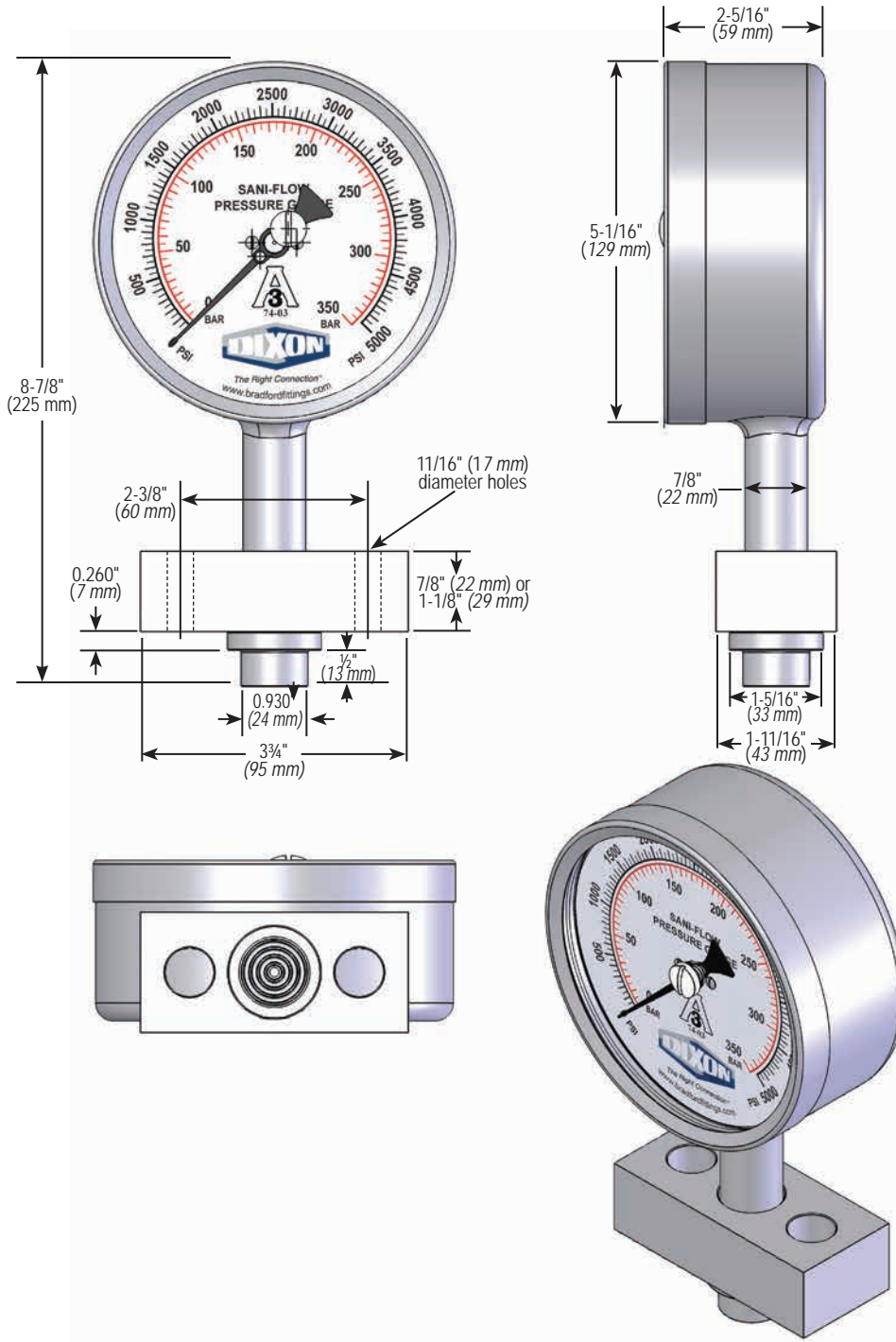
5H-V-03 - describes a 5" sani-flow homogenizer pressure gauge, 0 to 5,000 PSI, a 1-1/8" thick flange, and a glycerine filled case

5H-WB-01 - describes a 5" sani-flow homogenizer pressure gauge, dual scale 0 to 10,000 PSI/0 to 700 BAR, no flange, and a glycerine filled case

Homogenizer Pressure Gauges

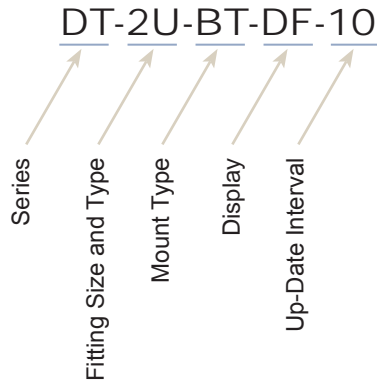
Product Specifications:

- 316L stainless steel wetted surfaces
- 304 stainless steel case
- Lexan® lens virtually impervious to cracks and breakage
- Unique pulsation dampening system insulates the gauge movement from the punishing pulsations of a homogenizer
- ranges up to 15,000 PSI.
- dial size: 5"
- glycerine fill standard
- waterproof construction
- CIP-able
- maximum temperature: 250°F
- true zero with re-zero standard



Sanitary Digital Thermometers

Model Number Breakdown



Product Specifications:

- accuracy: $\pm 1^\circ$
- wetted surfaces: 316L stainless steel
- surface finish: R_a max. is 8 microinches
- case material: 304 stainless steel
- dial size: $3\frac{1}{2}$ " diameter
- lens material: $\frac{1}{4}$ " polycarbonate
- temperature limits: -58°F to 302°F
- ambient operating limits: -4°F to 140°F
- LCD display: 0.6"
- resolution: 0.1° (-58° thru 199.9°)
- battery size / life: standard AAA/3 years
- shipping weight: approximately 3 lbs.

Ordering Information



Series

DT.....Sanitary digital thermometer

Fitting Type *

sizes available: 75, 15, 2, 25, 3 and 4

I.....male I-Line

T.....#13H captive nut and #14 Bevel Seat

U.....Clamp

* specify size then type, i.e. $1\frac{1}{2}$ "=15U.

Mount type

BT.....bottom

RT.....right side

LF.....left side

TP.....top

BK.....back

BTR.....remote fitting

Display

DF.....F (Fahrenheit) *standard*

DC.....C (Celsius)

Up-Date Interval

1.....one second (1 year battery life)

10.....ten second (3 year battery life)

Dimensions

LEFT SIDE MOUNT



RIGHT SIDE MOUNT

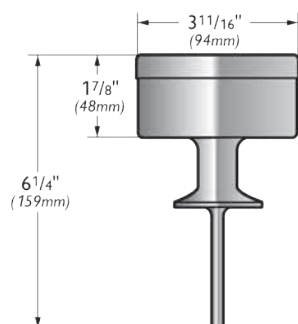


Ordering code shown with clamp configuration "U". See ordering info for other types available.

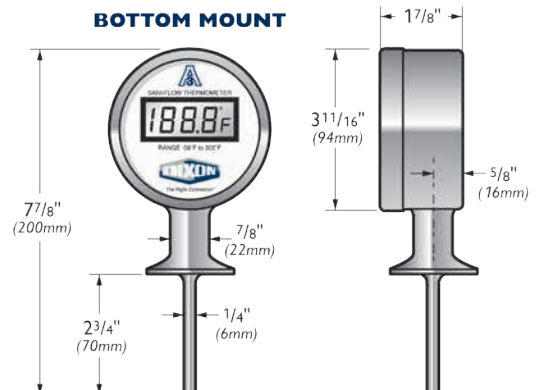
Size	Probe Length *	Code
$\frac{3}{4}$ "	2-3/8"	75U
1"	2-5/8"	1U
$1\frac{1}{2}$ "	2-3/4"	15U
2"	3-1/2"	2U
$2\frac{1}{2}$ "	3-1/2"	25U
3"	3-3/4"	3U
4"	4-1/2"	4U

* custom probe lengths are available

BACK MOUNT

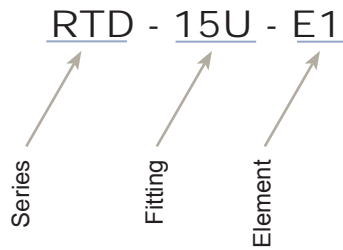


BOTTOM MOUNT



Sanitary RTD's and Temperature Transmitters

Model Number Breakdown



Ordering Information

Series

- RTD**.....Sani-Flow resistive temperature device
TT.....Sani-Flow temperature transmitter

Sanitary Fittings

fittings available in 5, 75, 15, 20, 25, 30 and 40

- H**.....G & H 'H' line male
I.....Cherry-Burrell male I-line
K.....APC 'K' clamp
Q.....Cherry-Burrell Q-line
T.....#13H captive nut and #14 bevel seat
U.....Tri-clamp®

- Specify size, then adapter type such as 15U for 1½" Tri-clamp® adapter
- For special probes add SP and the required probe length at the end of the part number; such as SP2.75 for a 2¾" long probe.

Other Fittings

Specify probe length

- A**.....air space
M.....umbrella fittings
NPT.....1/4", 3/8", 1/2", 5/8" or 3/4" pipe thread
PW.....projectile well with 1¼"-18 UNEF male thread
SP.....split ferrule
VP.....VAT well fitting with #13H captive nut
OF.....no fitting

Element *

- E1**.....single element
E2.....dual element

* available for RTD only

Sanitary RTD's & Temperature Transmitters



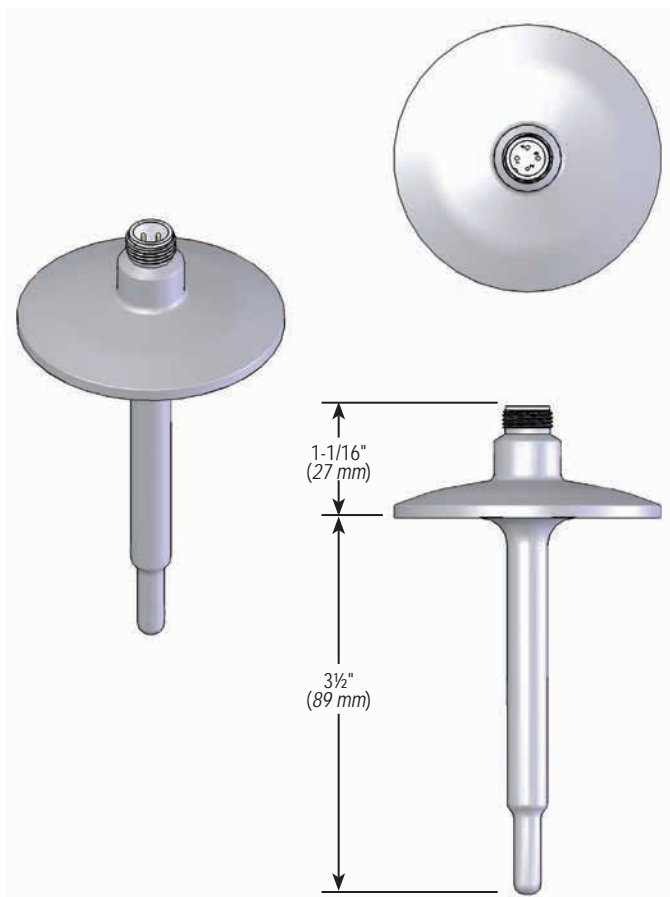
sanitary RTD



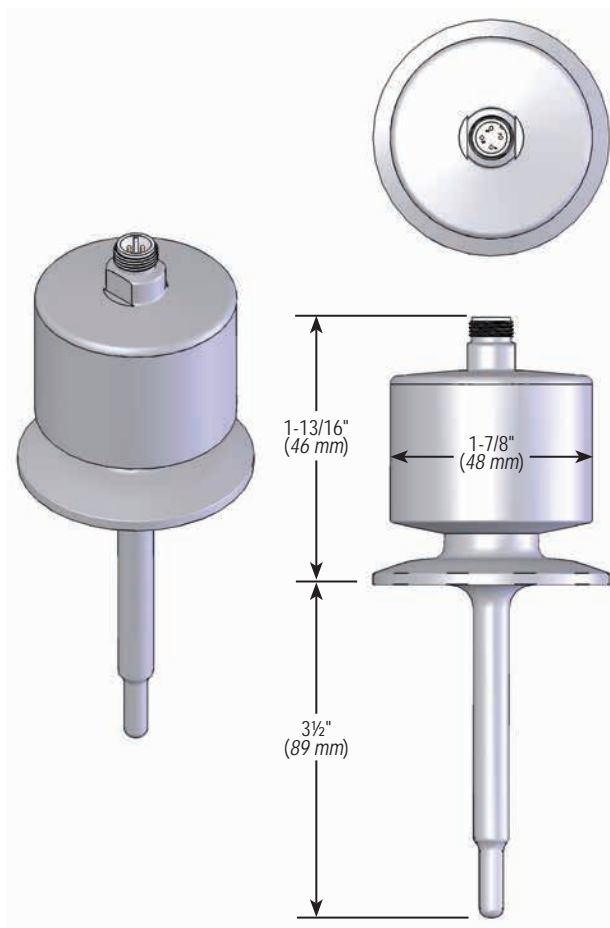
temperature transmitter

Product Specifications:

- 316L wetted surfaces
- exterior surfaces 316L with a near mirror finish
- standard 12mm industrial connector with gold plated contacts for maximum corrosion resistance and cleanability
- sensor elements are accurate up to +/-0.1C.
- RTD – temperature range: -58°F to 392°F
- TT – temperature range: -22°F to 302°F



RTD-20GI-38



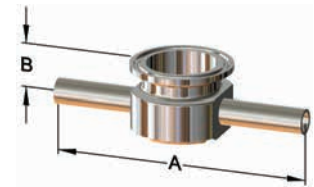
TT-20-G1

Note: custom lengths are available

Instrument Tees

Weld x Weld x Clamp Instrument Tees - TIWWMS

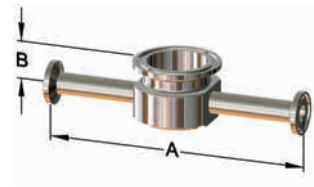
Size	A	B	316L Stainless Steel PL Finish - SF1	316L Stainless Steel PM Finish - SF4
1/2" x 1 1/2"	5.000	.875	T7IWWMS-050150PL	T7IWWMS-050150PM
3/4" x 1 1/2"	5.000	1.000	T7IWWMS-075150PL	T7IWWMS-075150PM
1" x 1 1/2"	5.000	1.125	T7IWWMS-100150PL	T7IWWMS-100150PM
1/2" x 2"	5.500	1.000	T7IWWMS-050200PL	T7IWWMS-050200PM
3/4" x 2"	5.500	1.125	T7IWWMS-075200PL	T7IWWMS-075200PM
1" x 2"	5.500	1.250	T7IWWMS-100200PL	T7IWWMS-100200PM
1 1/2" x 2"	5.500	1.500	T7IWWMS-150200PL	T7IWWMS-150200PM



BPE Table DT-4.1.2-10

Clamp x Clamp x Clamp Instrument Tees - T7IMPS

Size	A	B	316L Stainless Steel PL Finish - SF1	316L Stainless Steel PM Finish - SF4
1/2" x 1 1/2"	6.000	.875	T7IMPS-050150PL	T7IMPS-050150PM
3/4" x 1 1/2"	6.000	1.000	T7IMPS-075150PL	T7IMPS-075150PM
1" x 1 1/2"	6.000	1.125	T7IMPS-100150PL	T7IMPS-100150PM
1/2" x 2"	6.500	1.000	T7IMPS-050200PL	T7IMPS-050200PM
3/4" x 2"	6.500	1.125	T7IMPS-075200PL	T7IMPS-075200PM
1" x 2"	6.500	1.250	T7IMPS-100200PL	T7IMPS-100200PM
1 1/2" x 2"	6.500	1.500	T7IMPS-150200PL	T7IMPS-150200PM



BPE Table DT-4.1.2-10

Note: Not all sizes and finishes are stocked

PL Finish – SF1

OD = 32R_a Mechanically Polished
ID = 20R_a Mechanically Polished

PM Finish – SF4

OD = 32R_a Mechanically Polished
ID = 15R_a Mechanically Polished and
Electropolished

ABS Standard Dry Gauges

Features:

- ABS plastic case
- polycarbonate crystal
- PowerFlex™ movement with polyester segment, designed to resist the effects of shock, vibration and pulsation.
- ambient temperature range of **-40°F to 150°F**

Center Back Mount

1½" face 1/8" center back mount

PSI	Figure Interval	Minor Gradient	Part Number
0-30	5	.5	GC605
0-60	5	1	GC610
0-100	10	2	GC615
0-160	20	5	GC620
0-200	20	5	GC625



GC230

2" face 1/4" center back mount

PSI	Figure Interval	Minor Gradient	Part Number
0-15	1	.5	GC200
0-30	5	.5	GC215
0-60	5	1	GC220
0-100	10	2	GC225
0-160	20	5	GC230
0-200	20	5	GC235
0-300	30	5	GC240

Lower Mount

2" face 1/4" lower mount

PSI	Figure Interval	Minor Gradient	Part Number
0-15	1	.5	GL100
0-30	5	.5	GL115
0-60	5	1	GL120
0-100	10	2	GL125
0-160	20	5	GL130
0-200	20	5	GL135
0-300	30	5	GL140



GL140

Liquid Filled Stainless Case Gauges

Features:

- copper alloy bourdon tube
- glycerin liquid fill
- PowerFlex™ movement with polyester segment, designed to resist the effects of shock, vibration and pulsation.
- polycarbonate window
- ambient temperature range of **-4°F to 140°F**

2½" face
¼" lower mount

PSI	Figure Interval	Minor Gradient	Part Number
0-15	1	.5	GLS400
0-30	5	.5	GLS405
0-60	5	1	GLS410
0-100	10	2	GLS415
0-160	20	5	GLS417
0-200	20	5	GLS420
0-300	30	5	GLS425
0-400	50	10	GLS427
0-600	50	10	GLS430
0-1000	200	20	GLS435
0-1500	300	50	GLS440
0-2000	400	50	GLS445
0-3000	500	100	GLS450
0-5000	1000	100	GLS455



GLS430

Liquid Filled ABS Case Gauges

2½" face
¼" lower mount

PSI	Figure Interval	Minor Gradient	Part Number
0-15	1	.5	GLP500
0-30	5	.5	GLP505
0-60	5	1	GLP510
0-100	10	2	GLP515
0-160	20	5	GLP517
0-200	20	5	GLP520
0-300	30	5	GLP525
0-400	50	10	GLP527
0-600	50	10	GLP530
0-1000	200	20	GLP535
0-1500	300	50	GLP540
0-2000	400	50	GLP545
0-3000	500	100	GLP550
0-5000	1000	100	GLP555



GLP550

Compound Gauges

Features:

- ABS plastic case
- bronze bourdon tube / brass socket
- polycarbonate crystal
- brass movement with polyester segment, designed for extended wear
- ambient temperature range of **-40°F to 150°F**



GL310

2½" face ¼" center back mount

Mercury (Hg)	PSI	Figure Interval Hg / PSI	Minor Gradient Hg / PSI	Part Number
30"	0-160	30 / 20	5 / 5	GC210

2½" face ¼" lower mount

Mercury (Hg)	PSI	Figure Interval Hg / PSI	Minor Gradient Hg / PSI	Part Number
30"	0-100	30 / 10	5 / 2	GL310
30"	0-160	30 / 20	10 / 10	GL110
30"	0-200	30 / 20	10 / 10	GL315

Vacuum Gauges

Features:

- ABS plastic case
- bronze bourdon tube
- polycarbonate crystal
- ambient temperature range of **-40°F to 150°F**

2" face ¼" lower mount

Mercury (Hg)	Figure Interval	Minor Gradient	Part Number
30"	5"	.5"	GL105

2" face ¼" center back mount

Mercury (Hg)	Figure Interval	Minor Gradient	Part Number
30"	5"	.5"	GC205

2½" face ¼" lower mount

Mercury (Hg)	Figure Interval	Minor Gradient	Part Number
30"	5"	.5"	GL305



GL105

Instrumentation Fittings

Applications:

- high pressure
- high temperature
- nitrogen
- helium
- flammable gases
- hydraulic gases
- corrosive media

Instrumentation fittings come completely assembled.

Installation Instructions:

1. Cut tubing squarely and clean tube end thoroughly to remove burrs.
2. Insert the tubing into the assembly making sure the tubing seats firm against the shoulder of the body and the nut is finger tight.
3. Tighten the nut with a wrench 1¼ turns, while holding the body with a second wrench.

Suggested Working Pressures

Wall Thk.	.028	.035	.049	.065	.083	.095	.109
1/4"	4,000	5,100	7,500	10,100	---	---	---
3/8"	---	3,300	4,700	6,600	---	---	---
1/2"	---	2,600	3,700	5,000	6,600	---	---
5/8"	---	---	2,900	3,900	5,200	6,000	---
3/4"	---	---	2,400	3,200	4,200	4,900	5,700

Features:

- fully interchangeable with Swagelok® and Parker A-Lok® fittings
- double collet (ferrule) swaging action
- two positive seal points
- ASTM material construction
- material: 316 stainless steel
- temperature ratings: **-325°F to 1200°F** (-198°C to 648°C)
- pressure ratings: see chart to the left
Ratings listed are for reference only.

Safety Guidelines:

- Never connect, disconnect or remake a fitting with pressure in the system.
- Make sure all fittings are properly installed.
- It is not recommended to go beyond the pressure rating of the tubing. Elongation could occur in the tubing, shrinking the wall thickness and cause potential harm.
- For proper sealing it is recommended that the tubing and fittings be of like material.
- Always use proper thread lubricant and sealants on tapered pipe threads.
- Never bleed a system by loosening a fitting.

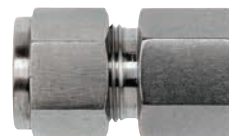
Male Connectors

Tube OD	Male NPT	Interchanges	316 Stainless Steel Part Number
1/4"	1/8"-27	400-1-2	4-DMC-2
	1/4"-18	400-1-4	4-DMC-4
	3/8"-18	400-1-6	4-DMC-6
	1/2"-14	400-1-8	4-DMC-8
3/8"	1/4"-18	600-1-4	6-DMC-4
	3/8"-18	600-1-6	6-DMC-6
	1/2"-14	600-1-8	6-DMC-8
1/2"	1/4"-18	810-1-4	8-DMC-4
	3/8"-18	810-1-6	8-DMC-6
	1/2"-14	810-1-8	8-DMC-8
5/8"	1/2"-14	1010-1-8	10-DMC-8
3/4"	1/2"-14	1210-1-8	12-DMC-8
	3/4"	1210-1-12	12-DMC-12



Female Connectors

Tube OD	Female NPT	Interchanges	316 Stainless Steel Part Number
1/4"	1/8"-27	400-7-2	4-DFC-2
1/4"	1/4"-18	400-7-4	4-DFC-4
3/8"	1/4"-18	600-7-4	6-DFC-4
3/8"	1/2"-14	600-7-8	6-DFC-8
1/2"	1/2"-14	810-7-8	8-DFC-8



Male Elbows

Tube OD	Male NPT	Interchanges	316 Stainless Steel Part Number
1/4"	1/8"-27	400-2-2	4-DME-2
	1/4"-18	400-2-4	4-DME-4
3/8"	1/4"-18	600-2-4	6-DME-4
	3/8"-18	600-2-6	6-DME-6
1/2"	1/2"-14	810-2-8	8-DME-8
3/4"	1/2"-14	1210-2-8	12-DME-8
	3/4"	1210-2-12	12-DME-12



Instrumentation Fittings

Union Tees



Tube OD	Interchanges	316 Stainless Steel Part Number
1/4"	400-3	4-DTTT-4
3/8"	600-3	6-DTTT-6
1/2"	810-3	8-DTTT-8

Unions



Tube OD	Interchanges	316 Stainless Steel Part Number
1/4" x 1/4"	400-6	4-DU
3/8" x 1/4"	600-6-4	6-DU-4
3/8" x 3/8"	600-6	6-DU
1/2" x 1/2"	810-6	8-DU

Bulkhead Unions



Tube OD	Interchanges	316 Stainless Steel Part Number
1/4"	400-61	4-DBHU-4
3/8"	600-61	6-DBHU-6
1/2"	810-61	8-DBHU-8

Front Ferrules



Tube OD	Interchanges	316 Stainless Steel Part Number
1/4"	403-1	DFC-4
3/8"	603-1	DFC-6
1/2"	813-1	DFC-8

Rear Ferrules



Tube OD	Interchanges	316 Stainless Steel Part Number
1/4"	404-1	DRC-4
3/8"	604-1	DRC-6
1/2"	814-1	DRC-8

Nuts



Tube OD	Interchanges	316 Stainless Steel Part Number
1/4"	402-1	DN-4
3/8"	602-1	DN-6
1/2"	812-1	DN-8