

Industrial Stainless Steel Gauge Introduction

Where vibration, corrosion and pulsating conditions exist, the Weiss line of stainless steel cased liquid filled industrial pressure gauges are designed to meet the most severe applications.

Some recommended uses are for agricultural equipment, hydraulic systems, oil field equipment, pumps, compressors and car wash systems. All liquid filled gauges are offered for direct mounting to the equipment, wall or panel mounting. With ranges from Vacuum to 20,000 psi, the Weiss line will provide the instrument for both the specific requirement of the OEM and the industrial user.

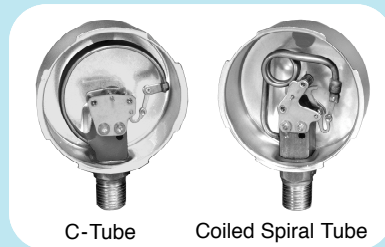
CASE STYLES

Direct Mounted, Front Flange, Back Flange and U-Clamp mounts.

INTERNALS

Phosphor bronze or Stainless Steel "C-Tube" or Coiled Spiral Bourdon Tube Assembly.

The Coiled Spiral Bourdon Tube is standard for pressure ranges of 1000 psi and above.



LIQUID FILLINGS

Glycerine is Standard and is suitable for temperature conditions between +20°F and +150°F. For fluid selection above or below these limits consult Factory. Other fluids are available.

INDICATING DIALS

Nominal 2", 2 1/2", 4" and 6". Custom dials are available.

RELIEF VALVE

Provided on all Liquid Filled Pressure Gauges to compensate for internal case pressure build-up.

WARNING: Misuse of this product may cause explosion and personal injury, read ANSI B40.1 before installation or use. Glycerine can combine with *strong oxidizing agents* including (but not limited to) chlorine, nitric acid and hydrogen peroxide and result in an explosion which can cause property damage. Consult factory for proper filling medium in hazardous service. Additional information can be obtained by reading Pressure Gauge Standard ANSI/ASME B40.1 available from the *American Society of Mechanical Engineers, United Engineering Center, 345 East 47th Street, New York, NY 10017.*

Liquid Filled Gauges-Crimped Ring Stainless Steel Cases 2",2 1/2" and 4"

LF251



LF251U

LF251F

CASE & RING: 2 1/2" type 304 stainless steel case with polished stainless steel crimped ring.
DIAL: ABS, white with black and red markings.(psi & kPa)
WINDOW: Clear acrylic.
TUBE: Phosphor Bronze to 6000psi, 316SS to 10,000psi.
SOCKET: Brass with push-in restrictor.
POINTER: Black anodized aluminum.
MOVEMENT: Brass.
ACCURACY: $\pm 1.6\%$ of span.
CONNECTION: 1/4" NPT bottom or center back.
RANGES: Vacuum, Compound, Pressure to 10,000 psi.

PANEL MOUNTING VARIATIONS

U-CLAMP: Series LF251U

FRONT FLANGE: Series LF251F

LF252



CASE & RING: 2 1/2" type 304 stainless steel case with polished stainless steel crimped ring.
DIAL: ABS, white with black and red markings.(psi & kPa)
WINDOW: Clear acrylic.
TUBE: Type 316 Stainless Steel .
SOCKET:Type 316 Stainless Steel with threaded restrictor.
POINTER: Black anodized aluminum.
MOVEMENT: Stainless Steel.
ACCURACY: $\pm 1.6\%$ of span.
CONNECTION: 1/4" NPT bottom or center back.
RANGES: Vacuum, Compound, Pressure to 10,000 psi.

PANEL MOUNTING VARIATIONS

U-CLAMP: Series LF252U

FRONT FLANGE: Series LF252F

LF201



CASE & RING: 2" type 304 stainless steel case with polished stainless steel crimped ring.
DIAL: ABS, white with black and red markings.(psi & kPa)
WINDOW: Clear acrylic.
TUBE: Phosphor Bronze
SOCKET:Brass with push-in restrictor.
POINTER: Black anodized aluminum.
MOVEMENT: Brass.
ACCURACY: $\pm 1.6\%$ of span.
CONNECTION: 1/8" NPT bottom or center back.
RANGES: 0-30, 60, 100, 200, 300, 600, 1,000, 3,000, 6,000 psi.

PANEL MOUNTING VARIATIONS

U-CLAMP: Series LF201U

Liquid Filled Gauges-Crimped Ring Stainless Steel Cases 4"

LF441



CASE & RING: 4" type 304 stainless steel thin line case with polished stainless steel crimped ring.

DIAL: White aluminum with black and red markings.
(psi & Kpa)

WINDOW: Clear acrylic.

TUBE: Phosphor Bronze.

SOCKET: Brass with push-in restrictor.

POINTER: Black anodized aluminum.

MOVEMENT: Brass rotary type with bushings.

ACCURACY: 1% of span.

CONNECTION: 1/4" NPT bottom.

RANGES: Vacuum, Compound, Pressure to 5000 psi.

Liquid Filled Gauges-Bayonet Ring Stainless Steel Cases 4" and 6"

LF401



CASE & RING: 4" type 304 stainless steel case with polished stainless steel bayonet ring.

DIAL: White aluminum with black and red markings
(psi & kPa).

WINDOW: Clear acrylic.

TUBE: Phosphor Bronze to 600psi, 316SS to 15,000psi.

SOCKET: Brass with push-in restrictor.

POINTER: Black anodized aluminum, adjustable.

MOVEMENT: Brass rotary type with bushings.

ACCURACY: 1% of span.

CONNECTION: 1/4" or 1/2" NPT bottom or lower back.*

RANGES: Vacuum, Compound, Pressure to 15,000 psi.

PANEL MOUNTING VARIATIONS

U-CLAMP: Series LF401U

FRONT FLANGE: Series LF401F

BACK FLANGE: Series LF401BF

LF402



CASE & RING: 4" type 304 stainless steel case with polished stainless steel bayonet ring.

DIAL: White aluminum with black and red markings.

WINDOW: Safety glass.

TUBE: Type 316 stainless steel.

SOCKET: Type 316 S.S. with threaded restrictor.

POINTER: Black anodized aluminum, micro adjustable.

MOVEMENT: Stainless steel rotary type with bushings.

ACCURACY: 1% of span.

CONNECTION: 1/4" or 1/2" NPT bottom or lower back.*

RANGES: Vacuum, Compound, Pressure to 15,000 psi.

PANEL MOUNTING VARIATIONS

U-CLAMP: Series LF402U

FRONT FLANGE: Series LF402F

BACK FLANGE: Series LF402BF

* 1/2" NPT standard for 1500 psi and above.

Liquid Filled Gauges-Bayonet Ring Stainless Steel Cases 6"

LF602



CASE & RING: 6" type 304 stainless steel case with polished stainless steel bayonet ring.

DIAL: White aluminum with black and red markings.

WINDOW: Glass.

TUBE: Type 316 stainless steel.

SOCKET: Type 316 stainless steel.

POINTER: Black anodized aluminum, micro adjustable.

MOVEMENT: Stainless steel rotary type with bushings.

ACCURACY: 1/2% of full span.

CONNECTION: 1/4" or 1/2" NPT bottom or lower back.*

RANGES: Vacuum, Compound, Pressure to 20,000 psi.

PANEL MOUNTING VARIATIONS

FRONT FLANGE: Series LF602F

BACK FLANGE: Series LF602BF

* 1/2" NPT standard for 1500 psi and above.

Industrial Stainless Steel Cases 4" and 6" - Copper Alloy Wetted Parts

NF401



CASE & RING: 4" type 304 stainless steel case with polished stainless steel bayonet ring.

DIAL: White aluminum with black and red markings (psi & kPa).

WINDOW: Clear acrylic.

TUBE: Phosphor Bronze to 600psi, 316SS to 5,000psi.

SOCKET: Brass with push-in restrictor.

POINTER: Black anodized aluminum, adjustable.

MOVEMENT: Brass rotary type with bushings.

ACCURACY: 1% of span.

CONNECTION: 1/4" or 1/2" NPT bottom or lower back.*

RANGES: Vacuum, Compound, Pressure to 5000 psi.

* 1/2" NPT standard for 1500 psi and above.

NF601



CASE & RING: 6" type 304 stainless steel case with blow out disc, polished stainless steel bayonet ring.

DIAL: White aluminum with black and red markings (psi & kPa).

WINDOW: Glass.

TUBE: Phosphor Bronze.

SOCKET: Brass.

POINTER: Black anodized aluminum, micro adjustable.

MOVEMENT: Stainless steel rotary type with bushings.

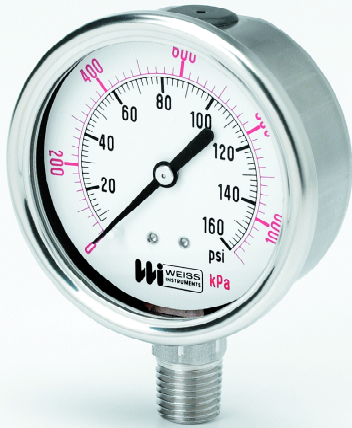
ACCURACY: 1/2% of span.

CONNECTION: 1/4" NPT bottom or lower back.

RANGES: Vacuum, Compound, Pressure to 600 psi.

Industrial Stainless Steel Cases 2 1/2", 4" and 6" - 316S.S. Wetted Parts

NF252



CASE & RING: 2 1/2" type 304 stainless steel case with polished stainless steel bayonet lock ring.
DIAL: ABS, white with black and red markings. (psi & kPa)
WINDOW: Clear acrylic.
TUBE: Type 316 stainless steel.
SOCKET: Type 316 stainless steel with threaded restrictor.
POINTER: Black anodized aluminum, adjustable.
MOVEMENT: Stainless steel.
ACCURACY: $\pm 1.6\%$ of span.
CONNECTION: 1/4" NPT bottom or center back.
RANGES: Vacuum, Compound, Pressure to 5000 psi.

NF402



CASE & RING: 4" type 304 stainless steel case with polished stainless steel bayonet ring.
DIAL: White aluminum with black and red markings (psi & kPa).
WINDOW: Safety glass.
TUBE: Type 316 Stainless Steel .
SOCKET: Type 316 Stainless Steel with threaded restrictor.
POINTER: Black anodized aluminum, micro adjustable.
MOVEMENT: Stainless Steel rotary type with bushings.
ACCURACY: 1% of span.
CONNECTION: 1/4" or 1/2" NPT bottom or lower back.*
RANGES: Vacuum, Compound, Pressure to 15,000 psi.

PANEL MOUNTING VARIATIONS

U-CLAMP: Series NF402U

FRONT FLANGE: Series NF402F

NF602



CASE & RING: 6" type 304 stainless steel case with blow out disc, polished stainless steel bayonet ring.
DIAL: White aluminum with black and red markings.
WINDOW: Glass.
TUBE: Type 316 Stainless Steel .
SOCKET: Type 316 Stainless Steel.
POINTER: Black anodized aluminum, micro adjustable.
MOVEMENT: Stainless steel rotary type with bushings.
ACCURACY: 1/2% of span.
CONNECTION: 1/4" or 1/2" NPT bottom or lower back.*
RANGES: Vacuum, Compound, Pressure to 20,000 psi.

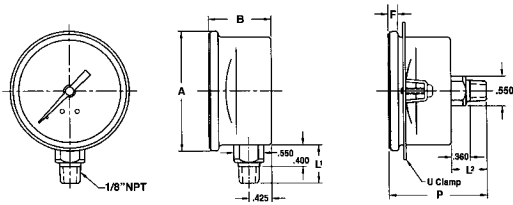
PANEL MOUNTING VARIATIONS

FRONT FLANGE: Series NF602F

BACK FLANGE: Series NF602BF

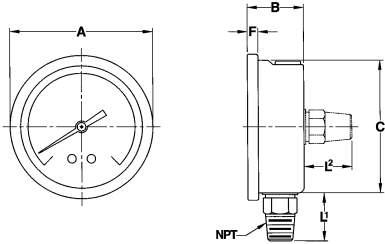
* 1/2" NPT standard for 1500 psi and above.

Case Dimensions LF20, LF & NF25



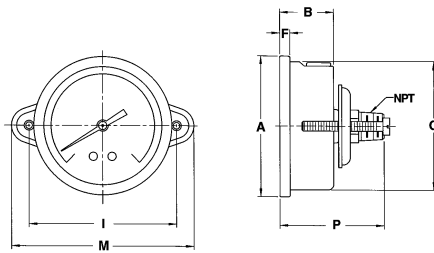
LOWER AND U CLAMP MNT, CENTER BACK CONNECTION

SERIES		A	B	F	L ₁	L ₂	P	PANEL HOLE	NPT
LF201	INCH	2.22	1.160	.180	.710	.670	1.83	2.050	1/8"
LF201U	MM	56.4	29.5	4.6	18.0	17.0	46.5	52.1	



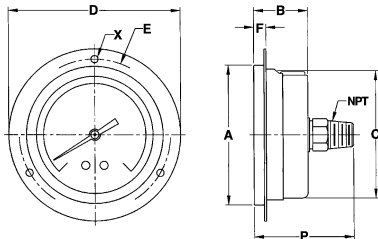
LOWER AND CENTER BACK CONNECTION

SERIES		A	B	C	F	L ₂		NPT
LF251 NF251	INCH	2.68	1.10	2.48	.24	.93	.91	1/4"
LF252 NF252	MM	68	28	63	6	23.5	23.0	



U CLAMP MOUNT - CENTER BACK CONNECTION

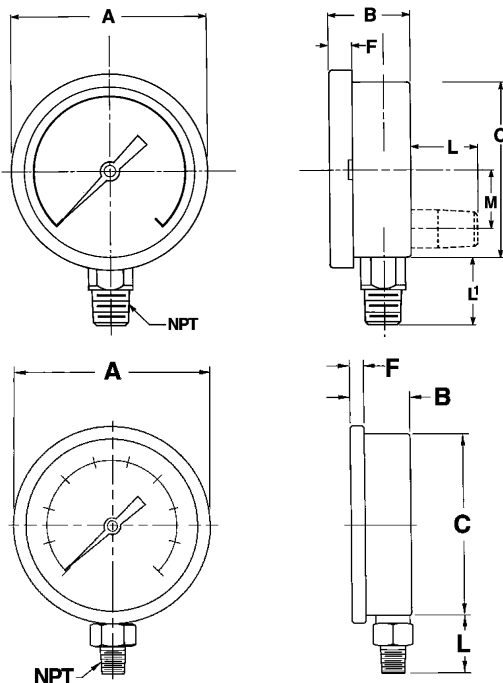
SERIES		A	B	C	F	I	M	P	PANEL HOLE	NPT
LF251U NF251U	INCH	2.68	1.10	2.48	.24	2.84	3.54	2.09	2.50	1/4"
LF252U NF252U	MM	68	28	63	6	72	90	53	63.5	



FRONT FLANGE - CENTER BACK CONNECTION

SERIES		A	B	C	D	E	F	X	PANEL HOLE	NPT	
LF251F NF251F	INCH	2.68	1.10	2.48	3.34	2.95	.24	2.09	.142	2.650	1/4"
LF252F NF252F	MM	68	28	63	85	75	6	53	3.6	67.3	

Case Dimensions LF & NF4



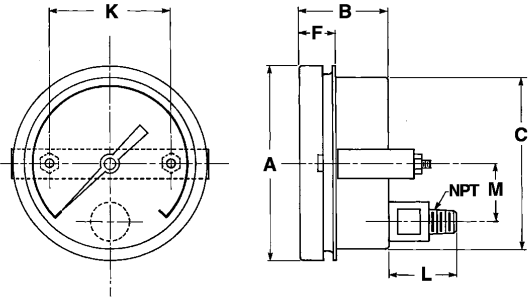
LOWER AND BACK CONNECTION

SERIES		A	B	C	F	M	L	L ₁	NPT
LF401 NF401	INCH	4.41	1.99	3.98	.57	.61	1.24	1.37	1/4" or 1/2"
LF402 NF402	MM	112	50.5	101	14.5	15.5	31.5	34.8	

LOWER CONNECTION

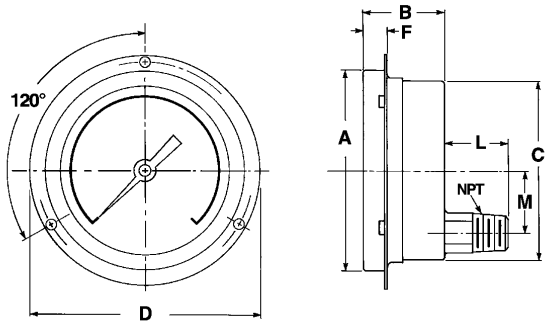
SERIES		A	B	C	F	L	NPT
LF441	INCH	4.32	1.31	3.97	.31	1.27	1/4"
	MM	110	33	101	8	32	

Case Dimensions LF & NF4



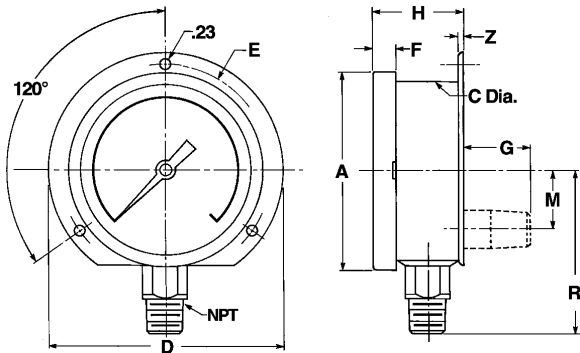
U CLAMP MOUNT - LOWER BACK CONNECTION

SERIES		A	B	C	F	K	L	M	PANEL HOLE	NPT
LF401U	INCH	4.41	1.99	3.98	.83	2.76	1.40	1.36	4.00	1/4" or
NF401U										
LF402U	MM	112	50.5	101	21	70	35.5	34.5	101.6	1/2"
NF402U										



FRONT FLANGE - LOWER BACK CONNECTION

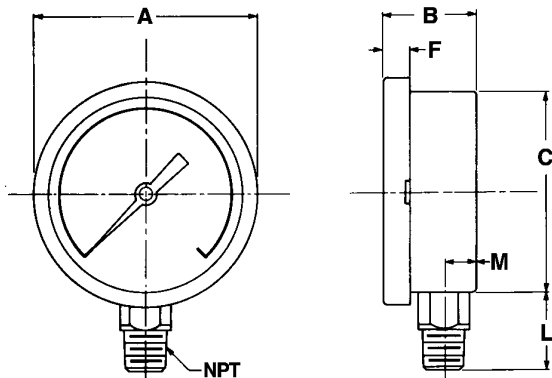
SERIES		A	B	C	D	E	F	L	M	PANEL HOLE	NPT
LF401F	INCH	4.41	1.99	3.98	5.12	4.57	.67	1.37	1.36	4.21	1/4" or
NF401F											
LF402F	MM	112	50.5	101	130	116	17	34.8	34.5	107	1/2"
NF402F											



BACK FLANGE - LOWER AND BACK CONNECTION

SERIES		A	C	D	E	F	G	H	M	R	Z	NPT
LF401BF	INCH	4.41	3.98	5.12	4.57	.57	1.37	2.15	1.36	3.43	.16	1/4" or
NF401BF												
LF402BF	MM	112	101	130	116	14.5	34.8	54.5	34.5	87	4	1/2"
NF402BF												

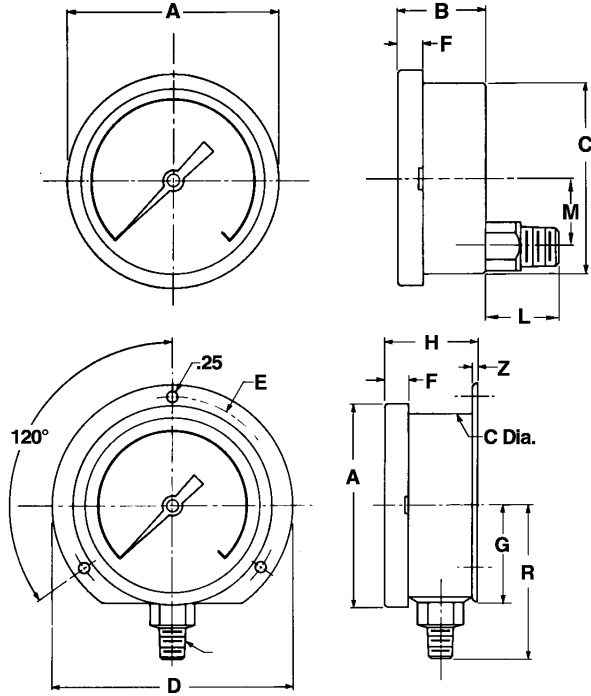
Case Dimensions LF & NF6



LOWER CONNECTION

SERIES		A	B	C	F	M	L	NPT
LF601	INCH	6.31	2.0	5.9	.57	.65	1.58	1/4" or
NF601								
LF602	MM	160	50.8	150	14.5	16.5	40.1	1/2"
NF602								

Case Dimensions LF & NF6



LOWER BACK CONNECTION

SERIES		A	B	C	F	M	L	NPT
LF601 NF601	INCH	6.31	2.0	5.9	.57	2.0	1.68	1/4" or
LF602 NF602	MM	160	50.8	150	14.5	50.8	42.6	1/2"

BACK FLANGE - LOWER CONNECTION

SERIES		A	C	D	E	F	G	H	R	Z	NPT
LF601BF NF601BF	INCH	6.31	5.9	7.50	6.84	.57	3.33	2.13	4.5	.21	1/4" or
LF602BF NF602BF	MM	160	150	191	174	14.5	85	54	114	5.3	1/2"

Standard Ranges

PRESSURE - Series LF & NF25

Range	Figure interval	Minor graduation
0-15	3	0.5
0-30	5	1.0
0-60	10	2.0
0-100	20	2.0
0-160	20	2.0
0-200	25	5.0
0-300	50	10.0
0-400	50	10.0
0-600	100	10.0
0-1000	200	20.0
0-1500	250	50.0
0-2000	250	50.0
0-3000	500	100.0
0-5000	1000	100.0
0-6000	1000	100.0
0-10,000	2000	200.0

COMPOUND

Range	Figure Interval		Minor graduation	
	in Hg	psi	in Hg	psi
30"Hg-30psi	10	5	2	1
30"Hg-60psi	10	10	2	2
30"Hg-100psi	30	20	5	2
30"Hg-150psi	30	25	5	5
30"Hg-200psi	30	20	5	5
30"Hg-300psi	30	50	10	5

VACUUM

Range	Figure interval	Minor graduation
0-30"Hg	5"Hg	1"Hg

PRESSURE - Series LF & NF4 and LF & NF6

Range	Figure interval	Minor graduation
0-15	3	0.5
0-30	5	1.0
0-60	10	2.0
0-100	20	2.0
0-160	20	2.0
0-200	25	5.0
0-300	50	10.0
0-400	50	10.0
0-600	100	10.0
0-1000	200	20.0
0-1500	250	50.0
0-2000	250	50.0
0-3000	500	100.0
0-5000	1000	100.0
0-10,000	1000	100.0
0-15,000	2000	200.0
0-20,000	2000	200.0

COMPOUND

Range	Figure interval		Minor graduation	
	in Hg	psi	in Hg	psi
30"Hg-30psi	10	5	2	1
30"Hg-60psi	10	10	2	2
30"Hg-100psi	30	20	5	2
30"Hg-150psi	30	25	5	5
30"Hg-200psi	30	20	5	5

VACUUM

Range	Figure interval	Minor graduation
0-30"Hg	5"Hg	0.5"Hg

TO SPECIFY

CHOOSE CAT. NO.			PLUS RANGE CODE			PLUS CONNECTION	
INDICATES CONSTRUCTION			RANGE CODE			SIZE & LOCATION	
CAT. NO. - DIAL SIZE	INTERNALS	RANGE CODE	RANGE - psi	kPa			
LIQUID FILL							
LF201	2"	Bronze	015	0-15	0-100	8L* = 1/8" Lower	
LF251	2 1/2"	Bronze	030	0-30	0-200	8B* = 1/8" Back	
LF252	2 1/2"	316S.S.	060	0-60	0-400	4L = 1/4" Lower	
LF441*	4"	Bronze	100	0-100	0-700	4B = 1/4" Back	
LF401	4"	Bronze	160	0-160	0-1100	2L = 1/2" Lower	
LF402	4"	316S.S.	200	0-200	0-1400	2B = 1/2" Back	
LF602	6"	316S.S.	300	0-300	0-2100		
DRY			400	0-400	0-2800		
NF252	2 1/2"	316S.S.	600	0-600	0-4200		
NF401	4"	Bronze	1000	0-1000	0-7000		
NF402	4"	316S.S.	1500	0-1500	0-10,000	*LF201 only	
NF601	6"	Bronze	2000	0-2000	0-14,000		
NF602	6"	316S.S.	3000	0-3000	0-21,000		
<i>*Thin Line Case</i>			5000	0-5000	0-40,000		
			6000	0-6000	0-42,000		
			10000	0-10,000	0-70,000		
			15000	0-15,000	0-100,000		
			20000	0-20,000	0-140,000		
			VAC	0-30"HG	-100-0		
			V30	30"-0-30	-100-200		
			V60	30"-0-60	-100-400		
			V100	30"-0-100	-100-700		
			V150	30"-0-150	-100-1000		
			V200	30"-0-200	-100-1400		
			V300	30"-0-300	-100-2100		

Ex: LF251 – 100 – 4L

PRESSURE MEASUREMENT CROSS REFERENCE CHART

psi	atms.	" H ₂ O	mm H ₂ O	cm H ₂ O	oz/in ²	Kg/cm ²	" Hg	mm Hg (Torr)	cm Hg	mbar	bar	Pa (N/m ²)	kPa	MPa
1	0.0681	27.71	703.8	70.38	16	0.0704	2.036	51.715	5.17	68.95	0.0689	6895	6.895	0.0069
14.7	1	407.2	10,343	1,034.3	235.1	1.033	29.92	760	76	1013	1.013	101,325	101.3	0.1013
0.0361	0.00246	1	25.4	2.54	0.5775	0.00254	0.0735	1.866	0.187	2.488	0.00249	248.8	0.249	0.00025
0.001421	0.000097	0.0394	1	0.1	0.0227	0.0001	0.00289	0.0735	0.00735	0.098	0.000098	9.8	0.0098	0.00001
0.01421	0.000967	0.3937	10	1	0.227	0.001	0.0289	0.735	0.0735	0.98	0.00098	98	0.098	0.0001
0.0625	0.00425	1.732	43.986	4.40	1	0.0044	0.1273	3.232	0.323	4.31	0.00431	431	0.431	0.00043
14.22	0.968	394.1	100,010	1,001	227.6	1	28.96	735.6	73.56	980.7	0.981	98,067	98.07	0.0981
0.4912	0.03342	13.61	345.7	34.57	7.858	0.0345	1	25.4	2.54	33.86	0.0339	3386	3.386	0.00339
0.01934	0.001316	0.536	13.61	1.361	0.310	0.00136	0.0394	1	.1	1.333	0.001333	133.3	0.1333	0.000133
0.1934	0.01316	5.358	136.1	13.61	3.10	0.0136	0.394	10	1	13.33	0.01333	1333	1.333	0.00133
0.0145	0.000987	0.4012	10.21	1.021	0.2321	0.00102	0.0295	0.75	0.075	1	0.001	100	0.1	0.0001
14.504	0.987	401.9	10,210	1021	232.1	1.02	29.53	750	75	1000	1	100,000	100	0.1
0.000145	0.00001	0.00402	0.102	0.0102	0.00232	0.00001	0.000295	0.0075	0.00075	0.01	0.00001	1	0.001	0.000001
0.14504	0.00987	4.019	102.07	10.207	2.321	0.0102	0.295	7.5	0.75	10	0.01	1,000	1	0.001
145.04	9.869	4019	102,074	10,207	2321	10.2	295.3	7500	750.	10,000	10	1,000,000	1,000	1