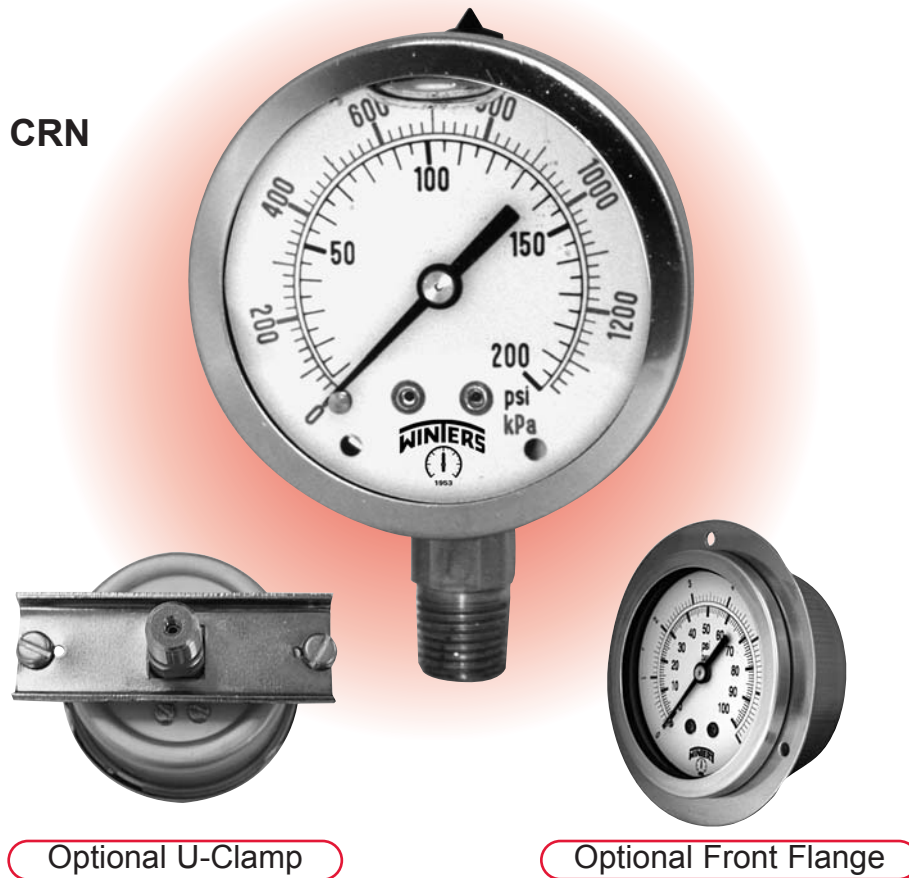


# Liquid Filled (LF) Series Quality



## Description

The Winters Liquid Filled (LF) Quality Series pressure gauges are designed for service applications where vibration or pulsation is present. All internal parts of the gauge are immersed in glycerin which protects them from the harmful effects of vibration and pulsation.

The Winters LF Quality Series are suitable for use on pumps, compressors, hydraulic presses and machinery, motors, winches etc. The gauges are available in direct, wall or panel mounting formats with ranges from vacuum to 15,000 psi (103,421 kPa).

The Winters LF Quality Series is CRN registered.



Corporate Office: 121 Railside Road • Toronto • ON • M3A 1B2 • (416) 444-2345 • Fax: (416) 444-8979

U.S.A. Office: 600 Ensminger Road • Buffalo • NY • 14150 • (716) 874-8700 • Fax: (716) 874-8800

[www.winters.com](http://www.winters.com) • 1-800-WINTERS (946-8377)

# Liquid Filled (LF) Series Quality

Specifications	
Dial:	1.5" (40mm), 2.5" (63mm), 4" (100mm), aluminum, white with black and red markings
Case:	AISI 304 stainless steel
Lens:	Polycarbonate
Ring:	AISI 304 stainless steel
Pointer:	Aluminum, anodized black
Socket:	OT 58 brass or AISI 316 stainless steel
Connection:	1/8", 1/4" NPT or 1/2" NPT standard
Bourdon Tube:	1.5" (40mm) - Brass C-shaped for pressures up to and including 600 psi (4,147 kPa) Steel C-shaped for pressures over 600 psi (4,136 kPa) 2.5" (63mm) and 4" (100mm) Phosphor bronze C-shaped for pressures up to and including 600 psi (4,147 kPa) unless stainless steel internals are specified. AISI 316 st/st C-shaped for 1000 psi (6,895 kPa) AISI 316 st/st spiral for pressures above 1000 psi (6,895 kPa)
Movement:	OT 59 brass or stainless steel
Gasket Materials:	Silicone rubber for socket; EPDM for lens, filling plug and blow-out vent.
Fill Liquid:	Glycerin is standard; silicone and fluorolube are optional on 2 1/2" (63mm) and 4" (100mm) only
Protection:	1 1/2" (40mm) - IP50 per UEC 529, UNI 8896 (brass), 2 1/2" (63mm) and 4" (100mm) - IP65 per UEC 529, UNI 8896
Welding:	Brass for pressures below 600 psi (4,147 kPa), 316 Stainless steel TIG Argonarc for pressures 600 psi (4,147 kPa) and above
Over-pressure Limit:	25% for pressures up to 1,400 psi (9,653 kPa), 15% for pressures over 1,400 psi (9,653 kPa)
Working Pressure:	Maximum 75% of full scale value
Ambient Temperature:	-40F/150F (-40C-65C) dry, -14F/150F glycerine filled
Process Temperature:	-40F/150F (-40C-65C) dry, -14F/150F glycerine filled
Accuracy:	1 1/2" (40mm): ± 2.5% accuracy (ANSI/ASME Grade B) 2 1/2" (63mm) and 4" (100mm): ± 1.5% (ANSI/ASME Grade B)
Protection:	IP65

Note: 1 1/2" (40mm) gauges are available dry (non-liquid filled) only on a special order basis.



Corporate Office: 121 Railside Road • Toronto • ON • M3A 1B2 • (416) 444-2345 • Fax: (416) 444-8979

U.S.A. Office: 600 Ensminger Road • Buffalo • NY • 14150 • (716) 874-8700 • Fax: (716) 874-8800

[www.winters.com](http://www.winters.com) • 1-800-WINTERS (946-8377)

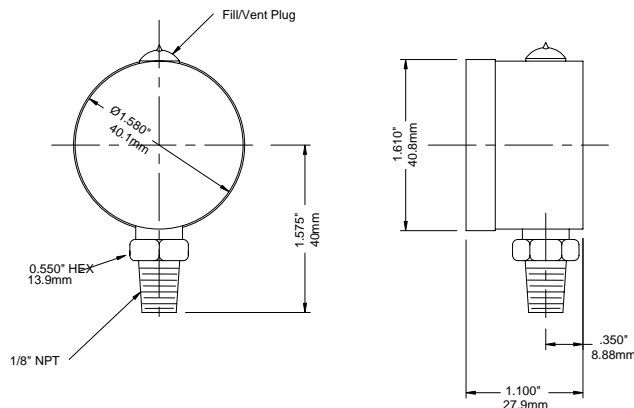
# Liquid Filled (LF) Series Quality

How to order: Specify product code  
**PRODUCT CODES**

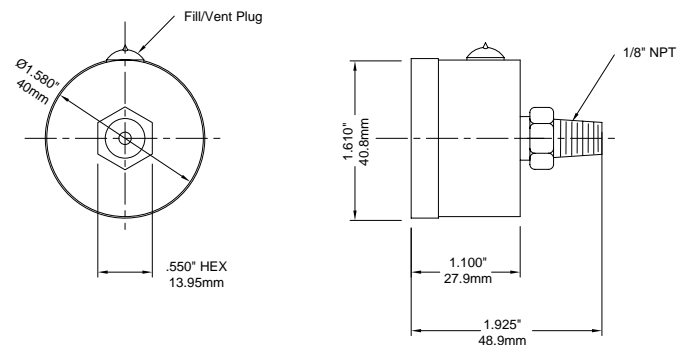
Dial Size	1 1/2" (40mm)				2 1/2" (63mm)		4" (100mm)				4" (100mm)				
	Bottom	Back (CB)	Bottom**	Back**(CB)	Bottom	Back (CB)	Bottom	Bottom	Back (CB)	Back (CB)	Bottom	Bottom	Back (CB)	Back (LB)	
Tube, Socket & Movement	Brass	Brass	Stainless	Stainless	Brass	Brass	Brass	Brass	Brass	Brass	Stainless	Stainless	Stainless	Stainless	
NPT Connection	1/8"	1/8"	1/8"	1/8"	1/4"	1/4"	1/4"	1/2"	1/4"	1/2"	1/4"	1/2"	1/4"	1/2"	
30" Hg Vacuum/kPa	*	*	Q1200	Q1220	Q801	Q900	Q700	*	Q730	*	Q760	*	Q1260	*	
30"-0-15 psi/kPa	*	*	*	*	Q790	Q890	Q701	*	Q731	*	Q761	*	Q1261	*	
30"-0-30 psi/kPa	*	*	*	*	Q798	Q898	Q702	*	Q732	*	Q762	*	Q1262	*	
30"-0-60 psi/kPa	*	*	*	*	Q799	Q899	Q703	*	Q733	*	Q763	*	Q1263	*	
30"-0-100 psi/kPa	*	*	*	*	Q791	Q891	Q704	*	Q734	*	Q764	*	Q1264	*	
30"-0-150 psi/kPa	*	*	*	*	Q792	Q892	Q705	*	Q735	*	Q765	*	Q1265	*	
30"-0-200 psi/kPa	*	*	*	*	Q794	Q894	Q706	*	Q736	*	Q766	*	Q1266	*	
30"-0-300 psi/kPa	*	*	*	*	Q795	Q895	Q707	*	Q737	*	Q767	*	Q1267	*	
0-15 psi/kPa	*	*	Q1201	Q1221	Q800	Q901	Q708	*	Q738	*	Q768	*	Q1268	*	
0-30 psi/kPa	Q1102	Q1122	Q1202	Q1222	Q802	Q902	Q709	*	Q739	*	Q769	*	Q1269	*	
0-60 psi/kPa	Q1103	Q1123	Q1203	Q1223	Q803	Q903	Q710	*	Q740	*	Q770	*	Q1270	*	
0-100 psi/kPa	Q1104	Q1124	Q1204	Q1224	Q804	Q904	Q711	*	Q741	*	Q771	*	Q1271	*	
0-160 psi/kPa	Q1105	Q1125	Q1205	Q1225	Q805	Q905	Q712	*	Q742	*	Q772	*	Q1272	*	
0-200 psi/kPa	Q1106	Q1126	Q1206	Q1226	Q806	Q906	Q713	*	Q743	*	Q773	*	Q1273	*	
0-300 psi/kPa	Q1107	Q1127	Q1207	Q1227	Q807	Q907	Q714	*	Q744	*	Q774	*	Q1274	*	
0-400 psi/kPa	*	*	*	*	Q817	Q917	Q715	*	Q745	*	Q775	*	Q1275	*	
0-600 psi/kPa	Q1108	Q1128	Q1208	Q1228	Q808	Q908	Q716	*	Q746	*	Q776	*	Q1276	*	
0-1000 psi/kPa	Q1109	Q1129	Q1209	Q1229	Q809	Q909	*	Q717	*	Q747	*	Q777	*	Q1277	*
0-1500 psi/kPa	Q1110	Q1130	Q1210	Q1230	Q816	Q914	*	Q718	*	Q748	*	Q778	*	Q1278	*
0-2000 psi/kPa	Q1111	Q1131	Q1211	Q1231	Q810	Q910	*	Q719	*	Q749	*	Q779	*	Q1279	*
0-3000 psi/kPa	Q1112	Q1132	Q1212	Q1232	Q811	Q911	*	Q720	*	Q750	*	Q780	*	Q1280	*
0-5000 psi/kPa	Q1113	Q1133	Q1213	Q1233	Q812	Q912	*	Q721	*	Q751	*	Q781	*	Q1281	*
0-6000psi/kPa	*	*	*	*	Q814	Q915	*	Q784	*	Q785	*	Q789	*	Q1284	*
0-7500psi/kPa	*	*	*	*	Q818	Q918	*	*	*	*	*	*	*	*	
0-10000 psi/kPa	*	*	*	*	Q813	Q913	*	Q722	*	Q752	*	Q782	*	Q1282	*
0-15000 psi/kPa	*	*	*	*	*	*	*	Q723	*	Q753	*	Q783	*	Q1283	*
0-20000 psi/kPa	*	*	*	*	*	*	*	*	*	*	*	*	*	*	

**Other Options:** \*\*1.5" Stainless available in psi only  
 25BF = 2.5" (63mm) Back Flange      Dry = supply above gauge less liquid fill  
 CB = Centre Back Connection      4BF = 4" (100mm) Back Flange      25UC = 2.5" (63mm) U-Clamp      4UC = 4" (100mm) U-Clamp  
 \* Other ranges available upon request.      LB = Lower Back Connection      25FF = 2.5" (63mm) Front Flange      4FF = 4" (100mm) Front Flange  
 \* Available upon request.

1 1/2" Bottom Connection, Brass Internals



1 1/2" Back Connection, Brass Internals



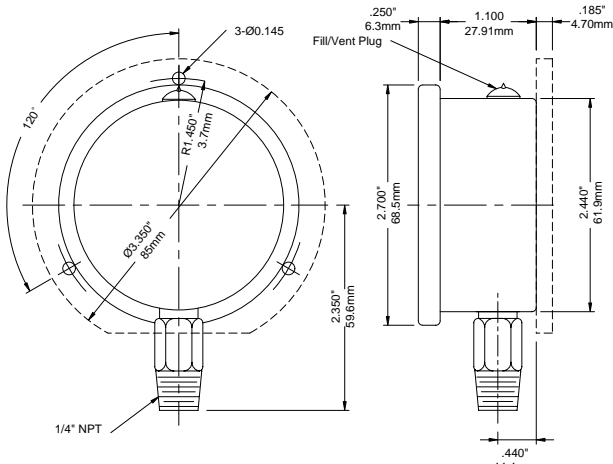
Corporate Office: 121 Railside Road • Toronto • ON • M3A 1B2 • (416) 444-2345 • Fax: (416) 444-8979

U.S.A. Office: 600 Ensminger Road • Buffalo • NY • 14150 • (716) 874-8700 • Fax: (716) 874-8800

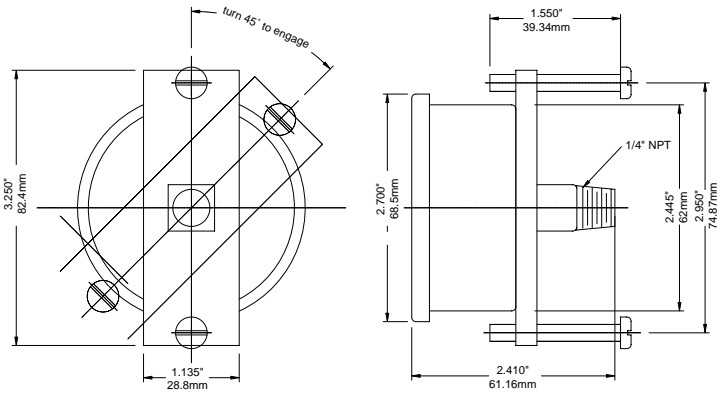
[www.winters.com](http://www.winters.com) • 1-800-WINTERS (946-8377)

# Liquid Filled (LF) Series Quality

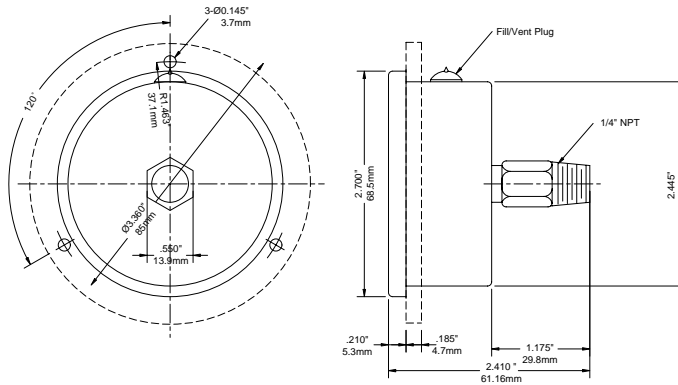
2 1/2" Bottom Connection with optional Back Flange



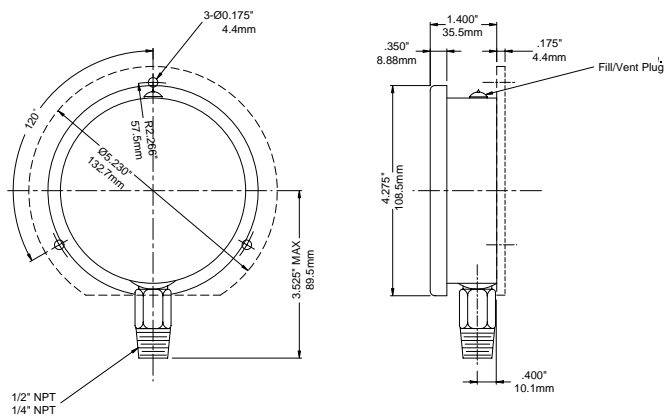
2 1/2" Back Connection, U-Clamp



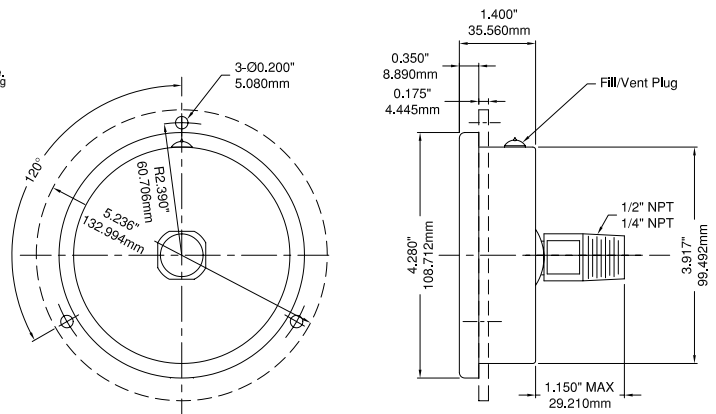
2 1/2" Back Connection with optional Front Flange



4" Bottom Connection with optional Back Flange



4" Back Connection with optional Front Flange



Corporate Office: 121 Railside Road • Toronto • ON • M3A 1B2 • (416) 444-2345 • Fax: (416) 444-8979

U.S.A. Office: 600 Ensminger Road • Buffalo • NY • 14150 • (716) 874-8700 • Fax: (716) 874-8800

[www.winters.com](http://www.winters.com) • 1-800-WINTERS (946-8377)