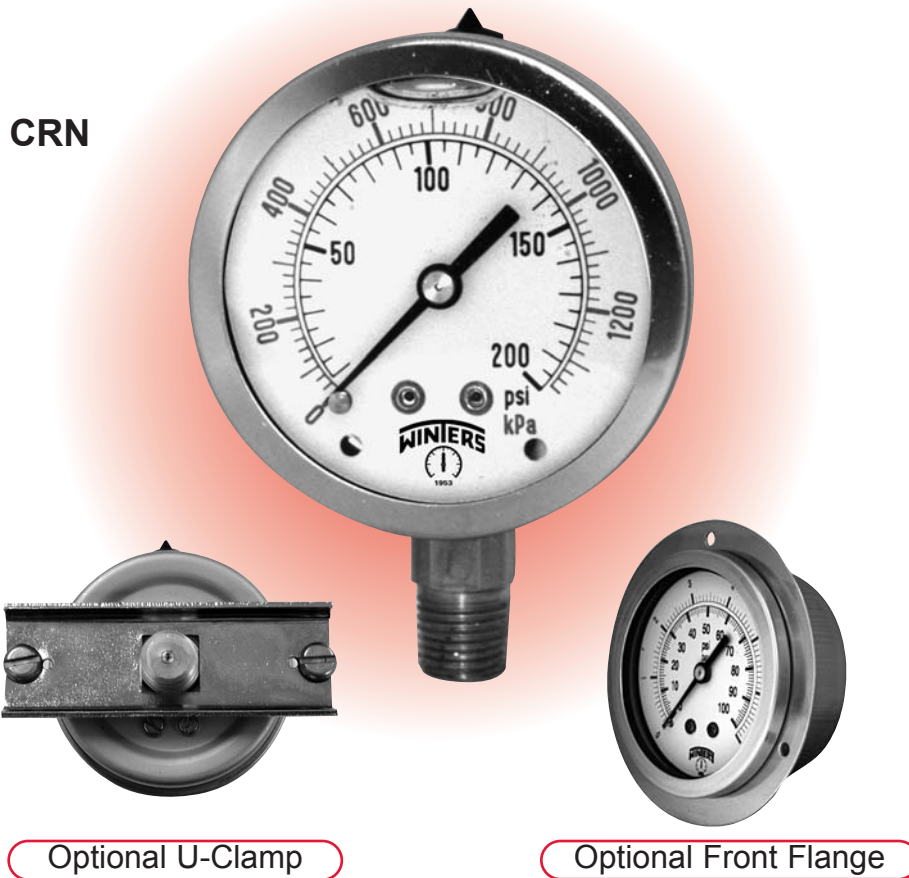


# Liquid Filled (LF) Series Quality



## 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.



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# 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.



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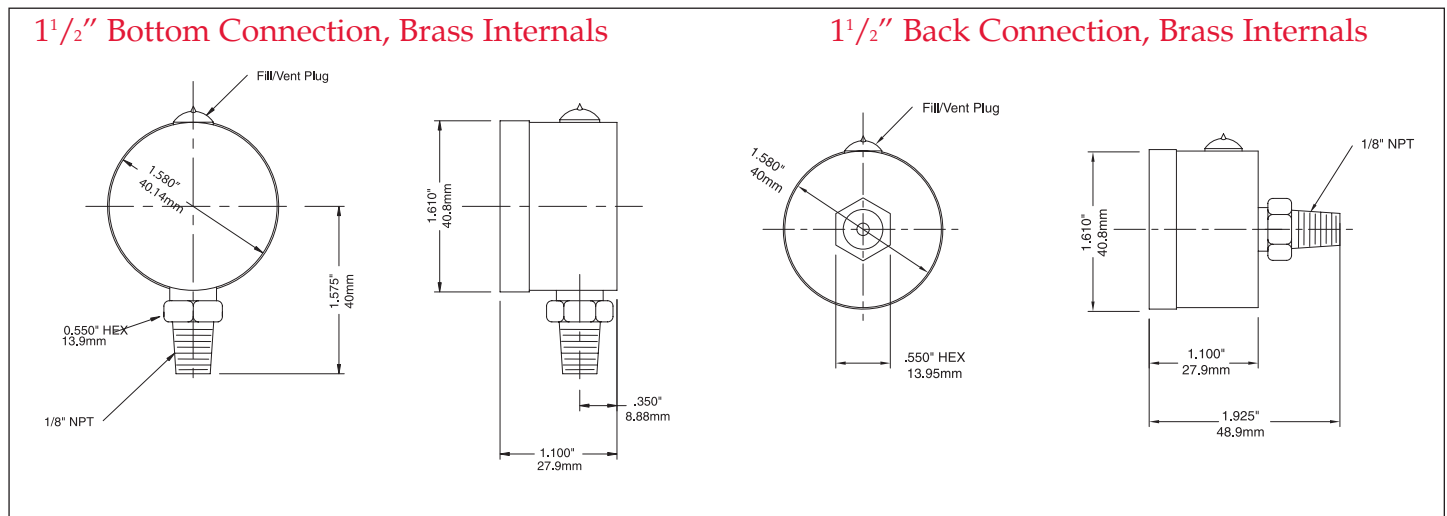
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# Liquid Filled (LF) Series Quality

How to order: Specify product code

Product Codes																
Dial Size	1 1/2" (40mm)				2 1/2" (63mm)				4" (100mm)				4" (100mm)			
Connection	Bottom	Back (CB)	Bottom	Back (CB)	Bottom	Back (CB)	Bottom	Back (CB)	Bottom	Bottom	Back (CB)	Back (CB)	Bottom	Bottom	Back (CB)	Back (CB)
Tube, Socket & Movement	Brass	Brass	Stainless Steel	Stainless Steel	Brass	Brass	Stainless Steel	Stainless Steel	Brass	Brass	Brass	Brass	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
NPT Connection	1/8"	1/8"	1/8"	1/8"	1/4"	1/4"	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	Q820	Q840	Q700	Q1234	Q730	Q1285	Q760	Q1535	Q1260	Q1559
30"-0-15 psi/kPa	*	*	*	*	Q790	Q890	Q860	Q870	Q701	Q1235	Q731	Q1286	Q761	Q1536	Q1261	Q1560
30"-0-30 psi/kPa	*	*	*	*	Q798	Q898	Q861	Q871	Q702	Q1236	Q732	Q1287	Q762	Q1537	Q1262	Q1561
30"-0-60 psi/kPa	*	*	*	*	Q799	Q899	Q862	Q872	Q703	Q1237	Q733	Q1288	Q763	Q1538	Q1263	Q1562
30"-0-100 psi/kPa	*	*	*	*	Q791	Q891	Q863	Q873	Q704	Q1238	Q734	Q1289	Q764	Q1539	Q1264	Q1563
30"-0-150 psi/kPa	*	*	*	*	Q792	Q892	Q864	Q874	Q705	Q1239	Q735	Q1290	Q765	Q1540	Q1265	Q1564
30"-0-200 psi/kPa	*	*	*	*	Q794	Q894	Q866	Q876	Q706	Q1240	Q736	Q1291	Q766	Q1541	Q1266	Q1565
30"-0-300 psi/kPa	*	*	*	*	Q795	Q895	Q867	Q877	Q707	Q1241	Q737	Q1292	Q767	Q1542	Q1267	Q1566
0-15 psi/kPa	*	*	Q1201	Q1221	Q800	Q901	Q821	Q921	Q708	Q1242	Q738	Q1293	Q768	Q1543	Q1268	Q1567
0-30 psi/kPa	Q1102	Q1122	Q1202	Q1222	Q802	Q902	Q822	Q922	Q709	Q1243	Q739	Q1294	Q769	Q1544	Q1269	Q1568
0-60 psi/kPa	Q1103	Q1123	Q1203	Q1223	Q803	Q903	Q823	Q923	Q710	Q1244	Q740	Q1295	Q770	Q1545	Q1270	Q1569
0-100 psi/kPa	Q1104	Q1124	Q1204	Q1224	Q804	Q904	Q824	Q924	Q711	Q1245	Q741	Q1296	Q771	Q1546	Q1271	Q1570
0-160 psi/kPa	Q1105	Q1125	Q1205	Q1225	Q805	Q905	Q825	Q925	Q712	Q1246	Q742	Q1298	Q772	Q1547	Q1272	Q1571
0-200 psi/kPa	Q1106	Q1126	Q1206	Q1226	Q806	Q906	Q826	Q926	Q713	Q1247	Q743	Q1524	Q773	Q1548	Q1273	Q1572
0-300 psi/kPa	Q1107	Q1127	Q1207	Q1227	Q807	Q907	Q827	Q927	Q714	Q1248	Q744	Q1525	Q774	Q1549	Q1274	Q1573
0-400 psi/kPa	*	*	*	*	Q817	Q917	Q880	Q881	Q715	Q1249	Q745	Q1526	Q775	Q1550	Q1275	Q1574
0-600 psi/kPa	Q1108	Q1128	Q1208	Q1228	Q808	Q908	Q828	Q928	Q716	Q1250	Q746	Q1527	Q776	Q1551	Q1276	Q1575
0-1000 psi/kPa	Q1109	Q1129	Q1209	Q1229	Q809	Q909	Q829	Q929	Q724	Q717	Q1251	Q747	Q1528	Q777	Q1552	Q1277
0-1500 psi/kPa	Q1110	Q1130	Q1210	Q1230	Q816	Q914	Q834	Q934	Q725	Q718	Q1252	Q748	Q1529	Q778	Q1553	Q1278
0-2000 psi/kPa	Q1111	Q1131	Q1211	Q1231	Q810	Q910	Q830	Q930	Q726	Q719	Q1253	Q749	Q1530	Q779	Q1554	Q1279
0-3000 psi/kPa	Q1112	Q1132	Q1212	Q1232	Q811	Q911	Q831	Q931	Q727	Q720	Q1254	Q750	Q1531	Q780	Q1555	Q1280
0-5000 psi/kPa	Q1113	Q1133	Q1213	Q1233	Q812	Q912	Q832	Q852	Q728	Q721	Q1255	Q751	Q1532	Q781	Q1556	Q1281
0-6000psi/kPa	*	*	*	*	Q814	Q915	Q836	Q851	*	Q784	*	Q785	*	Q789	*	Q1284
0-7500psi/kPa	*	*	*	*	Q818	Q918	Q150	Q151	*	*	*	*	*	*	*	*
0-10000 psi/kPa	*	*	*	*	Q813	Q913	Q833	Q853	Q729	Q722	Q1256	Q752	Q1533	Q782	Q1557	Q1282
0-15000 psi/kPa	*	*	*	*	*	*	Q835	Q855	*	Q723	Q1257	Q753	Q1534	Q783	Q1558	Q1283
0-20000 psi/kPa	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

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



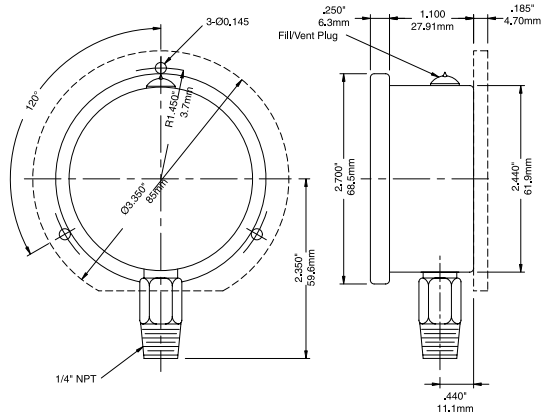
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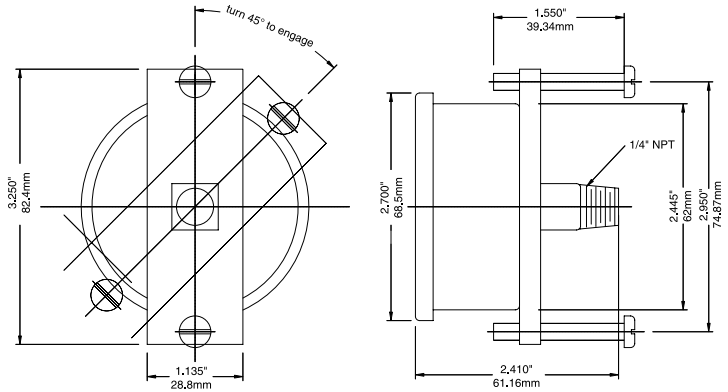
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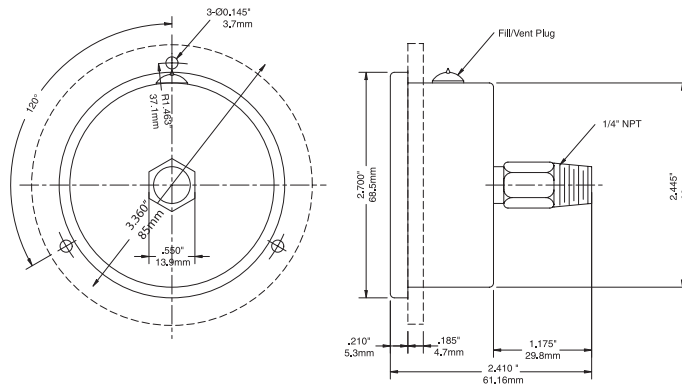
2 1/2" Bottom Connection with optional Back Flange



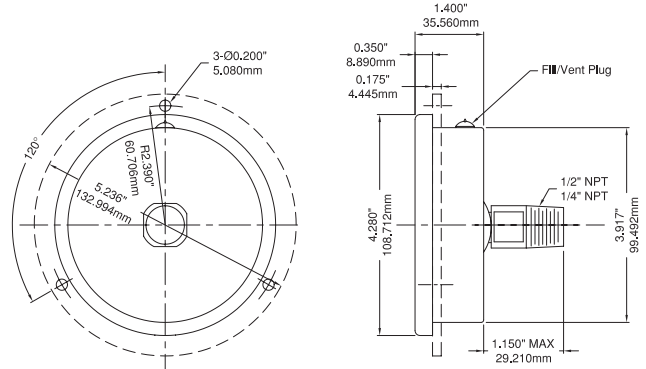
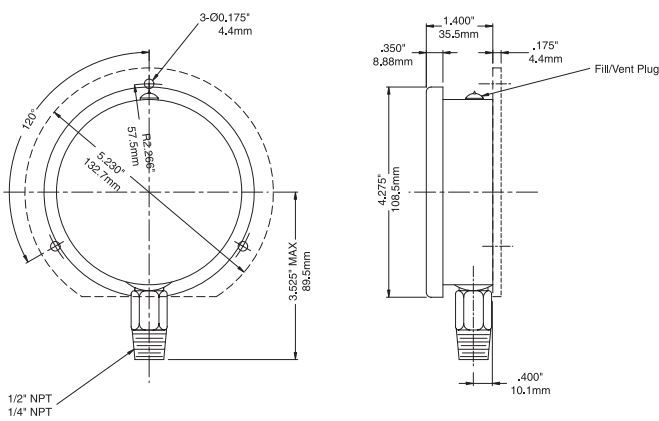
2 1/2" Back Connection, U-Clamp



2 1/2" Back Connection with optional Front Flange



4" Bottom Connection with optional Back Flange 4" Back Connection with optional Front Flange



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