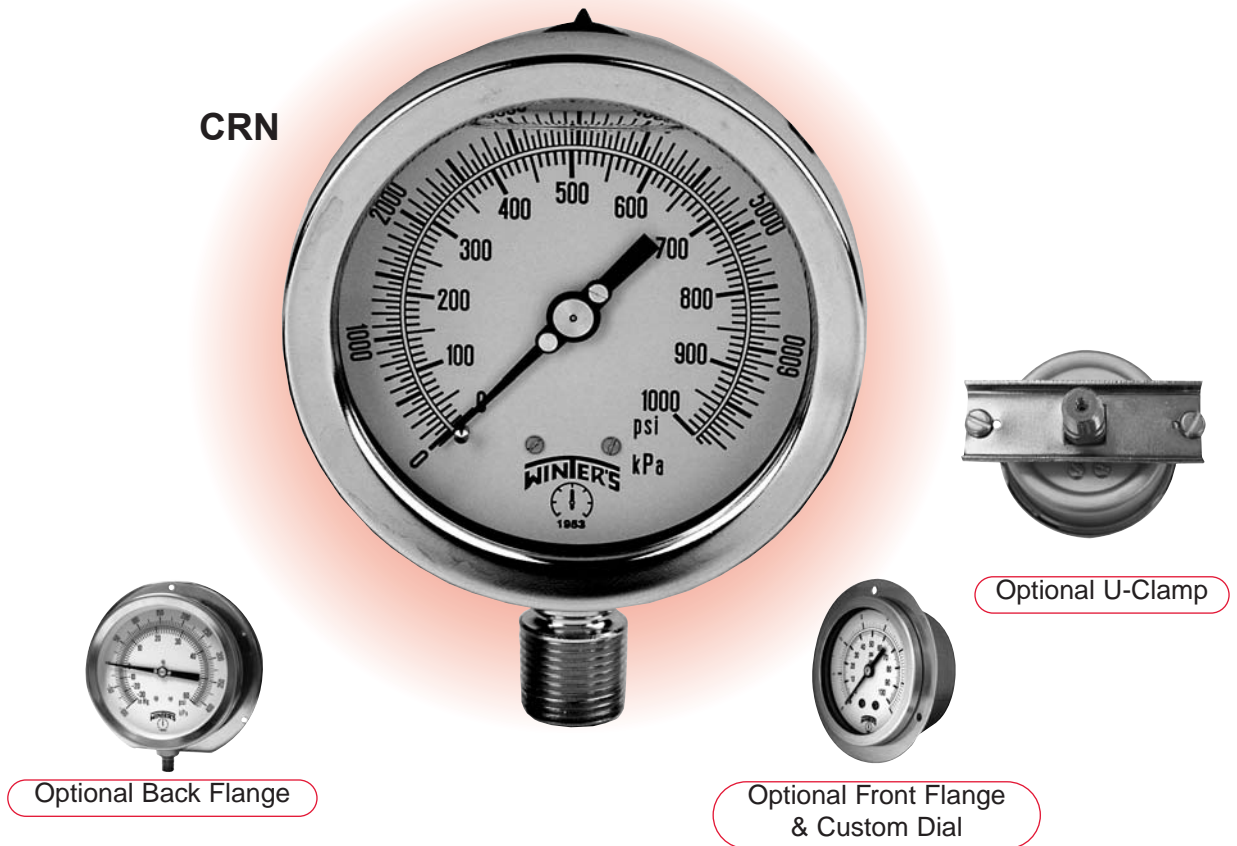


Liquid Filled (LF) Series Premium



Description

Winters' Liquid Filled (LF) Series Premium Pressure Gauges are made of stainless steel and are specifically designed for severe service applications. When immersed in glycerin, all moving parts in the instrument are lubricated and dampened from the harmful effects of vibration and pulsation. The LF Series Premium gauges are available with either stainless steel or brass internals and are CRN registered.

Winters' glycerin filled gauges are especially well suited for agricultural equipment, hydraulic equipment, pressure washers, oil field equipment, pumps, compressors and process systems. The gauges are available in direct, wall or panel mounting formats with ranges from vacuum to 20,000 psi (137,895 kPa).



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Liquid Filled (LF) Series Premium

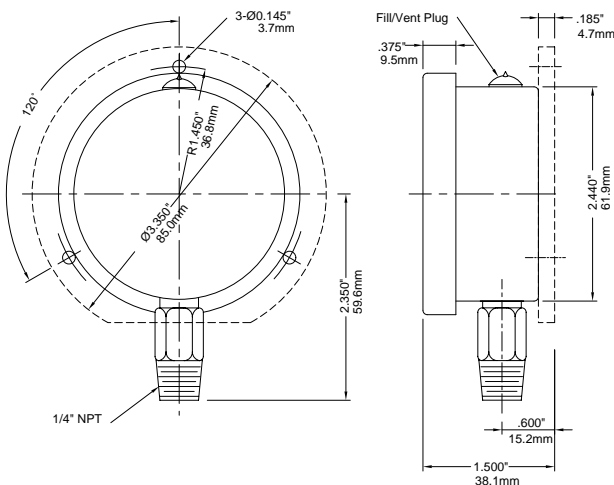
LF/SS Premium Specifications

Dial:	2 1/2" (63mm), 4" (100mm) 6" (150mm) and 10" (250mm) white aluminum with black and red markings
Case:	AISI 304 stainless steel
Lens:	Polycarbonate
Ring:	AISI 304 stainless steel
Pointer:	Aluminum, anodized black
Socket:	316L stainless steel
Connection:	1/4" NPT or 1/2" NPT standard 2 1/2" 1/4" NPT standard
Bourdon Tube:	316L stainless steel, seamless drawn
Movement:	304 stainless steel
Gasket Materials:	2 1/2" (63mm) - Buna N for case and block seal, Monoprene for lens seal 4" (100mm) , 6" (150mm) - EPDM
Fill Liquid:	Glycerin is standard, silicone and fluorolube are optional
Protection:	IP65 per UEC 529, UNI 8896
Welding:	TIG
Over-pressure Limit:	30% for pressures up to 600 psi (4,147 kPa), 15% for pressures over 600 psi (4,147 kPa)
Working Pressure:	Maximum 75% of full scale value
Ambient/Process Temperature:	-40°F to 150°F (-40C-65C) Dry, 14F to 150F (-10C-65C) liquid filled
Accuracy:	2 1/2" (63mm) -1.5%, 4" (100mm), 6" (150mm) and 10" (250mm) - 1% ANSI/ASME Grade 1A

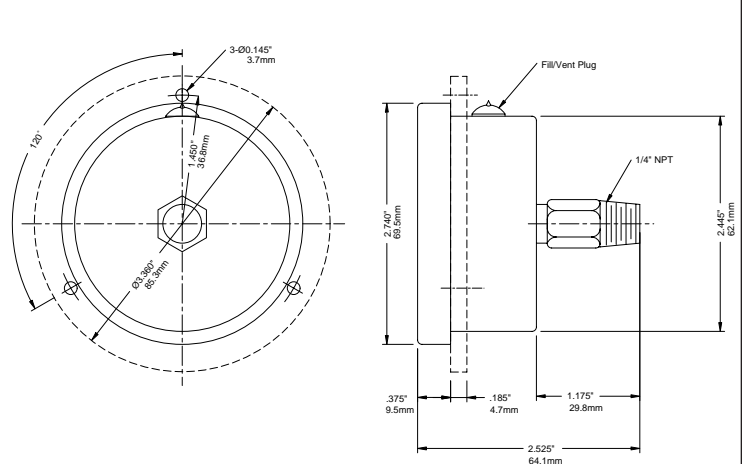
LF/BR Premium Specifications

Dial:	4" (100mm) white aluminum 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
Connection:	1/4" NPT or 1/2" NPT Standard
Bourdon Tube:	Phosphor Bronze
Movement:	Gears are OT 59 brass
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
Protection:	IP65 per UEC 529, UNI 8896
Welding:	Silver alloy
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/Process Temperature:	-40°F to 150°F (-40C-65C) Dry, 14F to 150F (-10C-65C) liquid filled
Accuracy:	4" (100mm), 1% ANSI/ASME Grade 1A

2 1/2" Bottom Connection with optional Back Flange - St/St



2 1/2" Back Connection with optional Front Flange - St/St



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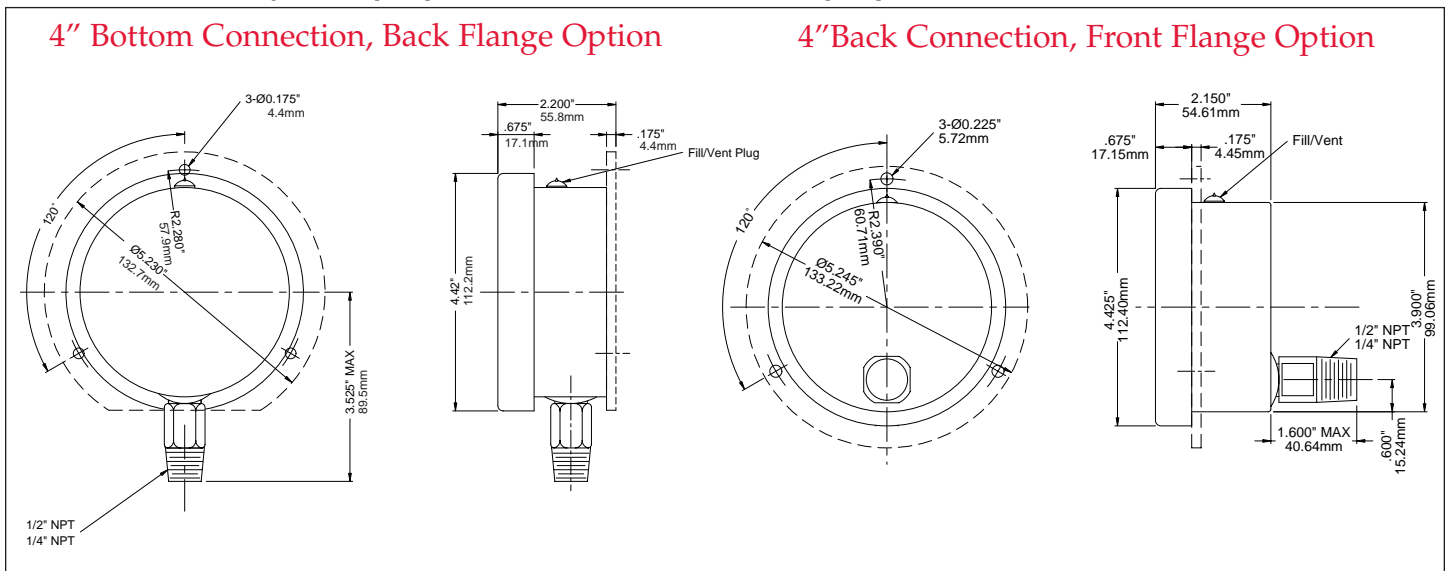
Liquid Filled (LF) Series Premium

How to order: Specify product code
PRODUCT CODES

2 1/2" & 4" Dials

Dial Size	2 1/2" (63mm)		4" (100mm)				4" (100mm)			
Connection	Bottom	Back (CB)	Bottom	Bottom	Back(LB)	Back (LB)	Bottom	Bottom	Back (LB)	Back(LB)
NPT Connection	1/4"	1/4"	1/4"	1/2"	1/4"	1/2"	1/4"	1/2"	1/4"	1/2"
Movement socket, tube	St/St	St/St	Brass	Brass	Brass	Brass	St/St	St/St	St/St	St/St
Glycerin Filled	Filled	Filled	Filled	Filled	Filled	Filled	Filled	Filled	Filled	Filled
30" Hg Vacuum/kPa	P820	P840	P600	*	P1000	*	P640	P655	P1090	*
30"-0-15 psi/kPa	P860	P870	P1020	*	P1028	*	P1036	P1044	P1244	*
30"-0-30 psi/kPa	P861	P871	P1021	*	P1029	*	P1037	P1045	P1245	*
30"-0-60 psi/kPa	P862	P872	P1022	*	P1030	*	P1038	P1046	P1246	*
30"-0-100 psi/kPa	P863	P873	P1023	*	P1031	*	P1039	P1047	P1247	*
30"-0-150 psi/kPa	P864	P874	P1024	*	P1032	*	P1040	P1048	P1248	*
30"-0-200 psi/kPa	P866	P876	P1026	*	P1034	*	P1042	P1050	P1249	*
30"-0-300 psi/kPa	P867	P877	P1027	*	P1035	*	P1043	P1051	P1250	*
0-15 psi/kPa	P821	P921	P601	*	P1001	*	P641	P656	P1091	*
0-30 psi/kPa	P822	P922	P602	*	P1002	*	P642	P657	P1092	*
0-60 psi/kPa	P823	P923	P603	*	P1003	*	P643	P658	P1093	*
0-100 psi/kPa	P824	P924	P604	*	P1004	*	P644	P659	P1094	*
0-160 psi/kPa	P825	P925	P605	*	P1005	*	P645	P660	P1095	*
0-200 psi/kPa	P826	P926	P606	*	P1006	*	P646	P661	P1096	*
0-300 psi/kPa	P827	P927	P607	*	P1007	*	P647	P662	P1097	*
0-400 psi/kPa	P880	P881	P610	*	P1016	*	P650	P666	P1251	*
0-600 psi/kPa	P828	P928	P608	*	P1008	*	P648	P663	P1098	*
0-1000 psi/kPa	P829	P929	P609	P624	*	P1009	P649	P664	P1099	*
0-1500 psi/kPa	P834	P934	*	P625	*	P1010	*	P665	P1252	P1190
0-2000 psi/kPa	P830	P930	*	P626	*	P1011	*	P667	P1253	P1191
0-3000 psi/kPa	P831	P931	*	P627	*	P1012	*	P668	P1254	P1192
0-5000 psi/kPa	P832	P852	*	P628	*	P1013	*	P669	P1255	P1193
0-6000psi/kPa	P836	P851	*	P631	*	P1015	*	P675	P1259	P1197
0-10000 psi/kPa	P833	P853	*	P629	*	P1014	*	P670	P1256	P1194
0-15000 psi/kPa	P835	P855	*	P630	*	P1018	*	P671	P1257	P1195
0-20000 psi/kPa	*	*	*	P639	*	P1019	*	P672	P1258	P1196

Other Options: 25UC = 2.5" (63mm) U-Clamp 4UC = 4" (100mm) U-Clamp SF = Silicone Filled
 25FF = 2.5" (63mm) Front Flange 4FF = 4" (100mm) Front Flange SG = Safety Glass Lens
 25BF = 2.5" (63mm) Back Flange 4BF = 4" (100mm) Back Flange 316 Stainless Steel Case and Mountable Bezel available
 Dry = Supply above gauge less liquid fill 4" (100mm) Available with Electric Contacts (dry or liquid filled) CB = centre back connection
 Other ranges available upon request. Other connection sizes available upon request LB = lower back connection



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Liquid Filled (LF) Series Premium

6" & 10" Dials

How to order: Specify product code

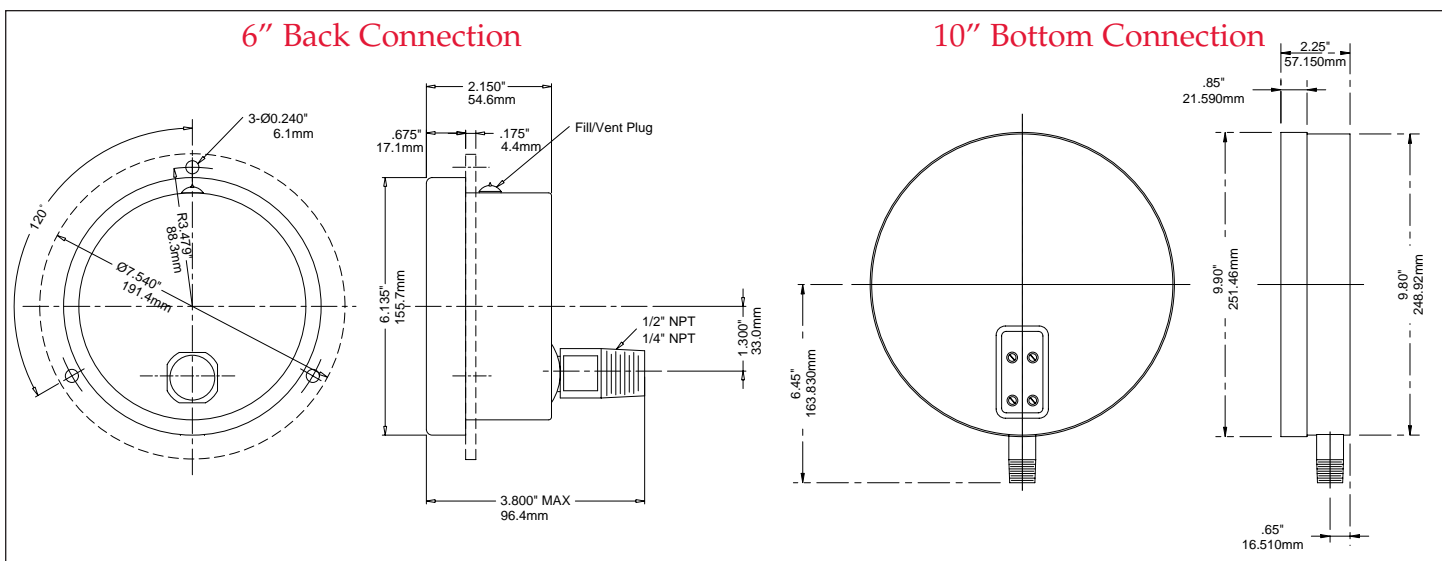
PRODUCT CODES

Dial Size	6" (150mm)				10" (250mm)	
Connection	Bottom	Back (LB)	Bottom	Back (LB)	Bottom	Bottom
NPT Connection	1/4"	1/4"	1/2"	1/2"	1/4"	1/2"
Movement	St/St	St/St	St/St	St/St	St/St	St/St
socket, tube	St/St	St/St	St/St	St/St	St/St	St/St
Glycerin Filled	Filled	Filled	Filled	Filled	Filled	Filled
30" Hg Vacuum/kPa	P1078	P1168	*	*	P2020	*
30"-0-15 psi/kPa	P1079	*	*	*	P2021	*
30"-0-30 psi/kPa	P1052	*	*	*	P2022	*
30"-0-60 psi/kPa	P1053	*	*	*	P2023	*
30"-0-100 psi/kPa	P1054	*	*	*	P2024	*
30"-0-150 psi/kPa	P1055	*	*	*	P2025	*
30"-0-200 psi/kPa	P1057	*	*	*	P2026	*
30"-0-300 psi/kPa	P1058	*	*	*	P2027	*
0-15 psi/kPa	P1059	P1159	*	*	P2028	*
0-30 psi/kPa	P1060	P1160	*	*	P2029	*
0-60 psi/kPa	P1061	P1161	*	*	P2030	*
0-100 psi/kPa	P1062	P1162	*	*	P2031	*
0-160 psi/kPa	P1063	P1163	*	*	P2032	*
0-200 psi/kPa	P1064	P1164	*	*	P2033	*
0-300 psi/kPa	P1065	P1165	*	*	P2034	*
0-400 psi/kPa	P1077	*	*	*	P2035	*
0-600 psi/kPa	P1066	P1166	*	*	P2036	*
0-1000 psi/kPa	P1067	P1167	P1080	*	P2037	P2045
0-1500 psi/kPa	P1068	*	P1081	P1169	P2038	P2046
0-2000 psi/kPa	P1069	*	P1082	P1170	P2039	P2047
0-3000 psi/kPa	P1070	*	P1083	P1171	P2040	P2048
0-5000 psi/kPa	P1072	*	P1085	P1172	P2041	P2049
0-6000psi/kPa	*	*	P1089	P1176	*	*
0-10000 psi/kPa	P1073	*	P1086	P1173	P2042	P2050
0-15000 psi/kPa	P1074	*	P1087	P1174	P2043	P2051
0-20000 psi/kPa	P1075	*	P1088	P1175	P2044	P2052

Other Options:

6UC = 6" (150mm) U-Clamp
 6FF = 6" (150mm) Front Flange
 6BF = 6" (150mm) Back Flange
 SG = Safety Glass Lens
 Other ranges available upon request.

SF = Silicone Filled
 SC = Safety Case (6" bottom connection only)
 Dry = Supply above gauge less liquid fill
 LB = Lower back connection
 Other connection sizes available upon request.



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