

# Dimensions for NPS 2 CL150 through 1500 Slip-On Flange Connections

## Supplement to Fisher® L2, L2e, and L2sj Level Controller Instruction Manuals

This supplement contains dimensions for NPS 2 CL150 through 1500 slip-on flange connections for L2, L2e, and L2sj level controllers.

Refer to the Maintenance section of the appropriate instruction manual for instructions on removing the sensor from the controller, and disassembly of the sensor connector.

Refer to the appropriate instruction manual for all other information regarding the L2, L2e, or L2sj level controller.

- L2 dimensions—refer to figure 2 and table 1
- L2e dimensions—refer to figure 3 and table 2
- L2sj dimensions—refer to figure 4 and table 3



# Flange Orientation

Orient the controller so that the case is level. See figure 1 for the proper sensor orientation for flange welding.

**⚠ WARNING**

To maintain code/standard compliance, weld fabrication must meet the requirements of AS ME Section IX. Failure to meet these requirement could result in personal injury and/or property damage.

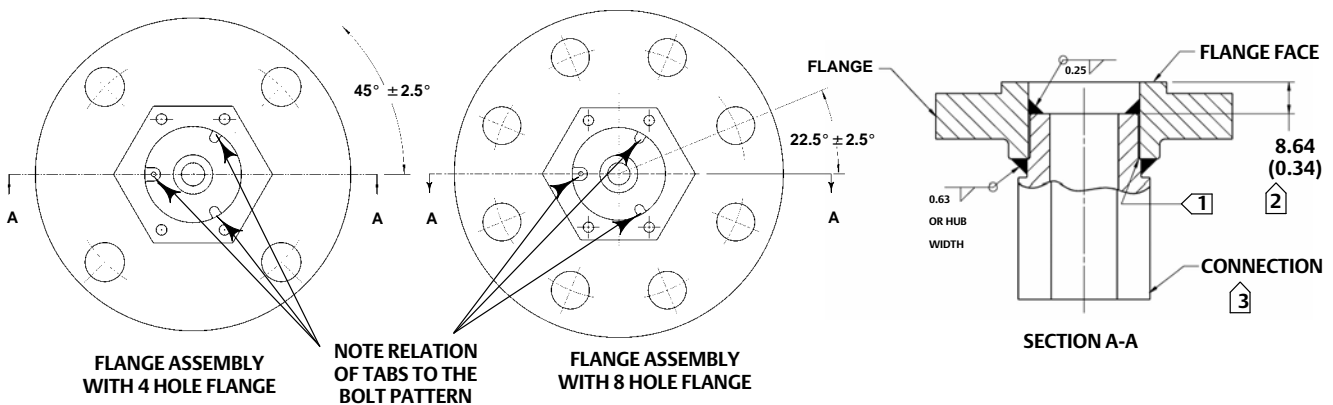
**⚠ WARNING**

To maintain compliance with NACE MR0175, weld fabrication must meet the requirements of NACE MR0175, paragraph 5.3. Failure to meet these requirements could result in personal injury and/or property damage.

**Note**

Slip-on flanges are not supplied with the L2, L2e, or L2sj level controller. Contact your Emerson Process Management sales office for information on obtaining a slip-on flange construction.

Figure 1. Sensor Orientation for Slip-On Flange Mounting



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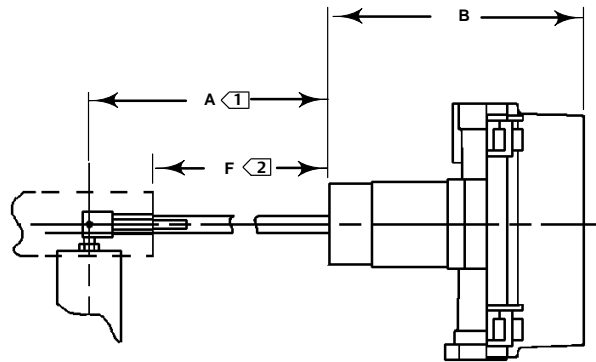
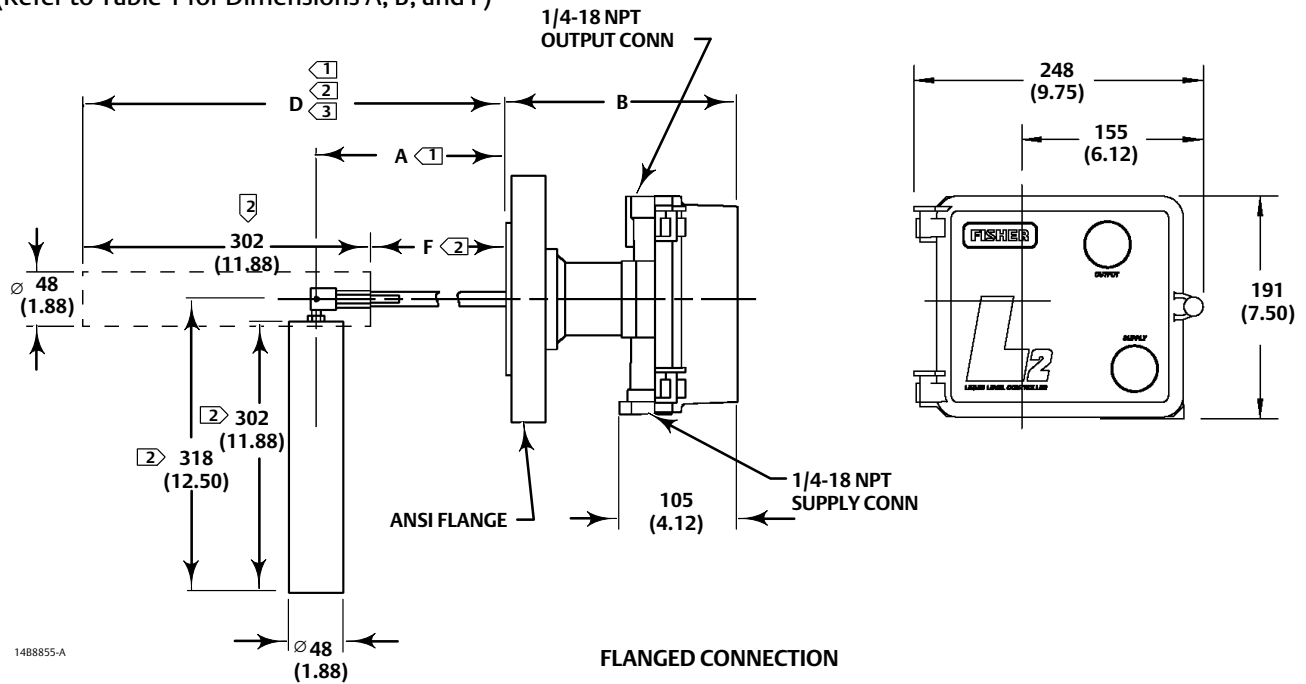
- 1 CONNECTION SHOULDER TO BOTTOM ON FLANGE HUB EXCEPT WHEN END-TO-FLANGE FACE IS LESS THAN 8.64 mm (0.34 INCH)
- 2 DIMENSION ONLY APPLIES WHEN CONNECTION CAN BE INSERTED SUCH THAT CONNECTION END-TO-FLANGE CONNECTION IS LESS THAN 8.64 mm (0.34 INCH)
- 3 CONNECTION USED FOR ORIENTATION

mm  
(INCH)

## Related Documents

- Bulletin 34.2:L2—Fisher L2 Liquid Level Controller (D103034X012)
- Fisher L2 Liquid Level Controller Instruction Manual (D103032X012)
- Bulletin 34.2:L2e—Fisher L2 Electric Level Controller (D103532X012)
- Fisher L2e Electric Level Controller Instruction Manual (D103531X012)
- Bulletin 34.2:L2sj—Fisher L2sj Low Emission Liquid Level Controller (D103229X012)
- Fisher L2sj Low Emission Liquid Level Controller Instruction Manual (D103216X012)

Figure 2. Fisher L2 Liquid Level Controller—Dimensions with Slip-On Flange  
(Refer to Table 1 for Dimensions A, B, and F)



NOTES:

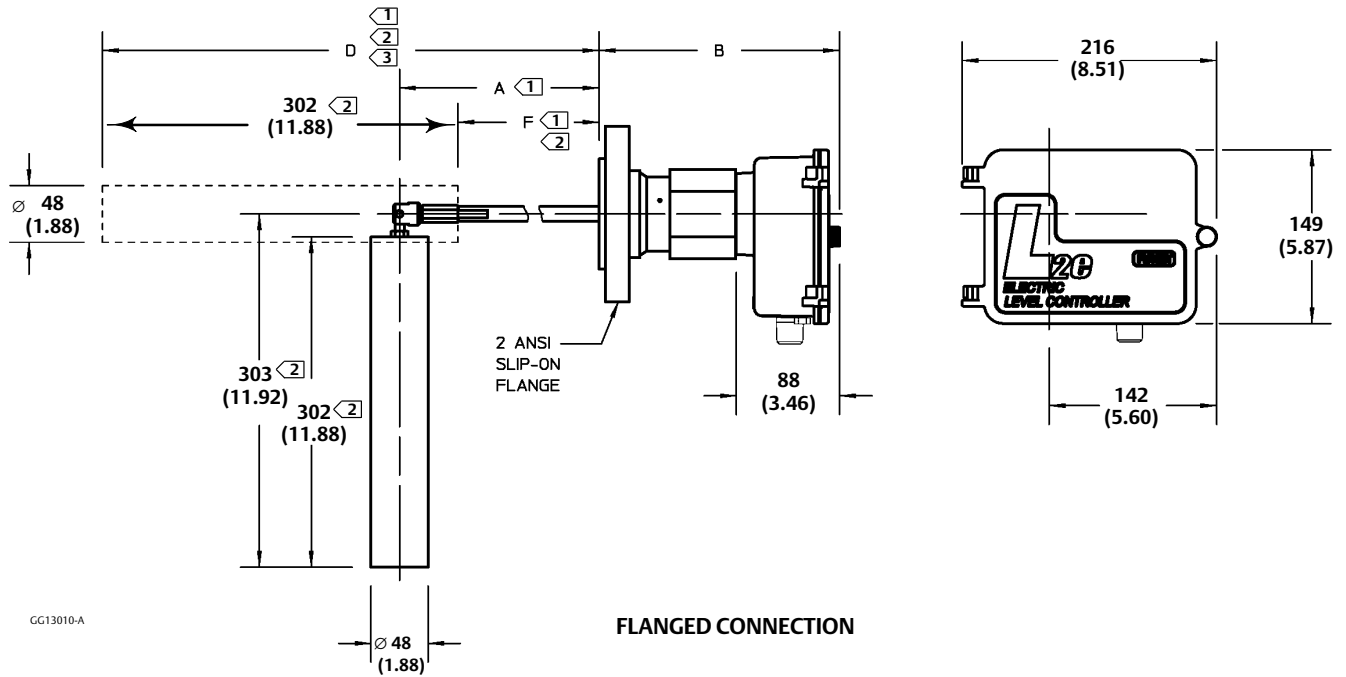
- 1 DIMENSIONS A AND D INCLUDE ONE STANDARD 6-INCH (152 mm) EXTENSION. CONTACT YOUR EMERSON PROCESS MANAGEMENT SALES OFFICE FOR OPTIONAL EXTENSION LENGTHS.
- 2 DIMENSIONS VALID WITH STANDARD DISPLACERS ONLY
- 3 DIMENSION D IS EQUAL TO DIMENSION F PLUS 302 mm (11.88 INCH)

mm  
(INCH)

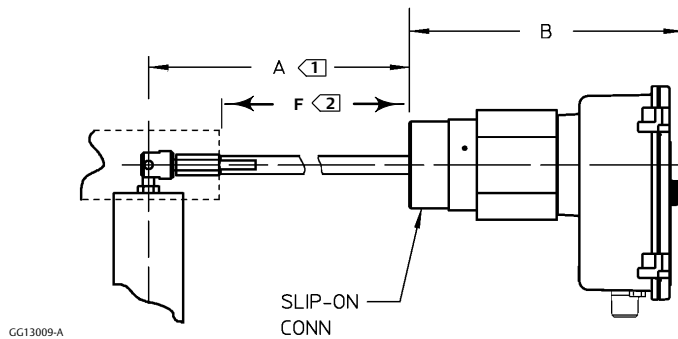
Table 1. Fisher L2 Liquid Level Controller—Dimension A, B, and F (see figure 2)

SIZE AND RATING		DIMENSIONS A, B, AND F					
		A	B	F	A	B	F
		mm			Inches		
2	CL150 RF	326	202	277	12.85	7.96	10.90
	CL300 RF	326	202	277	12.85	7.96	10.90
	CL600 RF	320	209	270	12.58	8.23	10.63
	CL600 RTJ	318	211	268	12.52	8.29	10.57
	CL900/1500 RF	299	230	249	11.77	9.04	9.82
	CL900/1500 RTJ	297	231	248	11.71	9.10	9.76
3 x 2	CL150 RF	326	202	277	12.85	7.96	10.90
	CL300 RF	321	207	272	12.65	8.17	10.70
	CL600 RF	312	217	262	12.27	8.54	10.32
	CL600 RTJ	310	219	261	12.21	8.60	10.26
	CL900 RF	296	233	246	11.65	9.17	9.70
	CL900 RTJ	294	234	245	11.58	9.23	9.63
	CL1500 FR	286	242	237	11.27	9.54	9.32
	CL1500 RTJ	285	244	235	11.20	9.61	9.25
4 x 2	CL150 RF	326	202	277	12.85	7.96	10.90
	CL300 RF	316	212	267	12.46	8.35	10.51
	CL600 RF	304	225	254	11.96	8.85	10.01
	CL600 RTJ	302	226	253	11.90	8.91	9.95
	CL900 RF	296	233	246	11.65	9.17	9.70
	CL900 RTJ	294	234	245	11.58	9.23	9.63
	CL1500 RF	277	252	227	10.90	9.92	8.95
	CL1500 RTJ	275	253	226	10.83	9.98	8.88
6 x 2	CL150 RF	324	204	275	12.77	8.04	10.82
	CL300 RF	310	219	261	12.21	8.60	10.26
	CL600 RF	292	236	243	11.52	9.30	9.57
	CL600 RTJ	291	238	241	11.45	9.36	9.50
	CL900 RF	272	257	222	10.71	10.10	8.76
	CL900 RTJ	270	258	221	10.64	10.17	8.69
	CL1500 RF	242	287	192	9.52	11.29	7.57
	CL1500 RTJ	239	290	189	9.40	11.42	7.45
NPS 2 slip-on Connection	Weld preparation	335	194	285	13.19	7.62	11.24

Figure 3. Fisher L2e Electric Level Controller—Dimensions with Slip-On Flange  
(Refer to Table 2 for Dimensions A, B, and F)



GG13010-A



GG13009-A

**WELD PREPARATION FOR SLIP-ON CONNECTIONS**

**NOTES:**

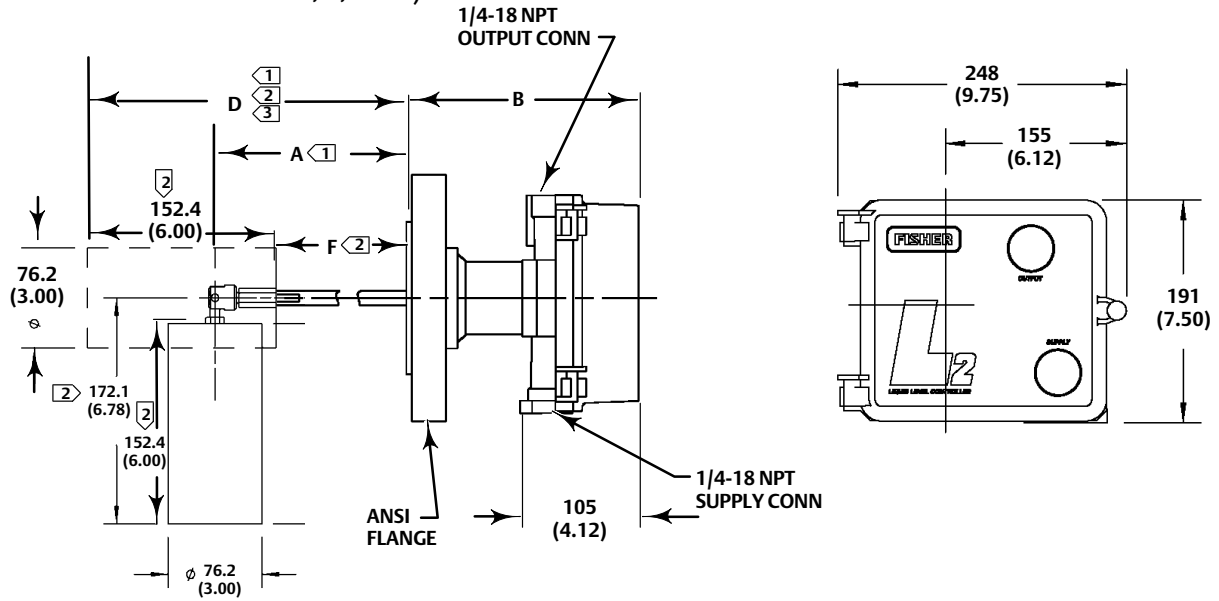
- 1 DIMENSIONS A AND D INCLUDE ONE STANDARD 6-INCH (152 mm) EXTENSION. CONTACT YOUR EMERSON PROCESS MANAGEMENT SALES OFFICE FOR OPTIONAL EXTENSION LENGTHS.
- 2 DIMENSIONS VALID WITH STANDARD DISPLACERS ONLY
- 3 DIMENSION D IS EQUAL TO DIMENSION F PLUS 302 mm (11.88 INCH)

mm  
(INCH)

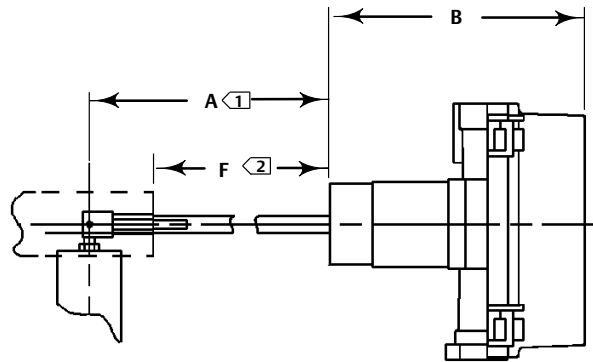
Table 2. Fisher L2e Electric Level Controller—Dimension A, B, and F (see figure 3)

SIZE AND RATING		DIMENSIONS A, B, AND F					
		A	B	F	A	B	F
		mm			Inches		
2	CL150 RF	326	200	277	12.85	7.86	10.90
	CL300 RF	326	200	277	12.85	7.86	10.90
	CL600 RF	320	207	270	12.58	8.13	10.63
	CL600 RTJ	318	208	268	12.52	8.19	10.57
	CL900/1500 RF	299	227	249	11.77	8.94	9.82
	CL900/1500 RTJ	297	229	248	11.71	9.00	9.76
3 x 2	CL150 RF	326	200	277	12.85	7.86	10.90
	CL300 RF	321	205	272	12.65	8.07	10.70
	CL600 RF	312	214	262	12.27	8.44	10.32
	CL600 RTJ	310	216	261	12.21	8.50	10.26
	CL900 RF	296	230	246	11.65	9.07	9.70
	CL900 RTJ	294	232	245	11.58	9.13	9.63
	CL1500 FR	286	240	237	11.27	9.44	9.32
	CL1500 RTJ	285	242	235	11.20	9.51	9.25
4 x 2	CL150 RF	326	200	277	12.85	7.86	10.90
	CL300 RF	316	210	267	12.46	8.25	10.51
	CL600 RF	304	222	254	11.96	8.75	10.01
	CL600 RTJ	302	224	253	11.90	8.81	9.95
	CL900 RF	296	230	246	11.65	9.07	9.70
	CL900 RTJ	294	232	245	11.58	9.13	9.63
	CL1500 RF	277	249	227	10.90	9.82	8.95
	CL1500 RTJ	275	251	226	10.83	9.88	8.88
6 x 2	CL150 RF	324	202	275	12.77	7.94	10.82
	CL300 RF	310	216	261	12.21	8.50	10.26
	CL600 RF	292	234	243	11.52	9.20	9.57
	CL600 RTJ	291	235	241	11.45	9.26	9.50
	CL900 RF	272	254	222	10.71	10.00	8.76
	CL900 RTJ	270	256	221	10.64	10.07	8.69
	CL1500 RF	242	284	192	9.52	11.19	7.57
	CL1500 RTJ	239	288	189	9.40	11.32	7.45
NPS 2 slip-on Connection	Weld preparation	335	191	285	13.19	7.52	11.24

Figure 4. Fisher L2sj Liquid Level Controller—Dimensions with Slip-On Flange  
(Refer to Table 3 for Dimensions A, B, and F)



FLANGED CONNECTION



148856-A

WELD PREPARATION FOR SLIP-ON CONNECTIONS

NOTES:

- 1 DIMENSIONS A AND D INCLUDE ONE STANDARD 3-INCH (76.2 mm) EXTENSION. CONTACT YOUR EMERSON PROCESS MANAGEMENT SALES OFFICE FOR OPTIONAL EXTENSION LENGTHS.
- 2 DIMENSION VALID WITH STANDARD DISPLACERS ONLY
- 3 DIMENSION D IS EQUAL TO DIMENSION F PLUS 152.4 mm (6.00 INCH)

mm  
(INCH)



Table 3. Fisher L2sj Liquid Level Controller—Dimension A, B, and F (see figure 4)

SIZE AND RATING		DIMENSIONS A, B, AND F					
		A	B	F	A	B	F
		mm			Inches		
2	CL150 RF	250	202	201	9.85	7.96	7.90
	CL300 RF	250	202	201	9.85	7.96	7.90
	CL600 RF	243	209	194	9.58	8.23	7.63
	CL600 RTJ	242	211	192	9.52	8.29	7.57
	CL900/1500 RF	223	230	173	8.77	9.04	6.82
	CL900/1500 RTJ	221	231	172	8.71	9.10	6.76
3 x 2	CL150 RF	250	202	201	9.85	7.96	7.90
	CL300 RF	245	207	195	9.65	8.17	7.70
	CL600 RF	235	217	186	9.27	8.54	7.32
	CL600 RTJ	234	219	184	9.21	8.60	7.26
	CL900 RF	220	233	170	8.65	9.17	6.70
	CL900 RTJ	218	234	168	8.58	9.23	6.63
	CL1500 FR	210	242	161	8.27	9.54	6.32
	CL1500 RTJ	208	244	159	8.20	9.61	6.25
4 x 2	CL150 RF	250	202	201	9.85	7.96	7.90
	CL300 RF	240	212	191	9.46	8.35	7.51
	CL600 RF	228	225	178	8.96	8.85	7.01
	CL600 RTJ	226	226	177	8.90	8.91	6.95
	CL900 RF	220	233	170	8.65	9.17	6.70
	CL900 RTJ	218	234	168	8.58	9.23	6.63
	CL1500 RF	201	252	151	7.90	9.92	5.95
	CL1500 RTJ	199	253	149	7.83	9.98	5.88
6 x 2	CL150 RF	248	204	199	9.77	8.04	7.82
	CL300 RF	234	219	184	9.21	8.60	7.26
	CL600 RF	216	236	167	8.52	9.30	6.57
	CL600 RTJ	215	238	165	8.45	9.36	6.50
	CL900 RF	196	257	146	7.71	10.10	5.76
	CL900 RTJ	194	258	145	7.64	10.17	5.69
	CL1500 RF	166	287	116	6.52	11.29	4.57
	CL1500 RTJ	162	290	113	6.40	11.42	4.45
NPS 2 slip-on Connection	Weld preparation	259	194	209	10.19	7.62	8.24

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