

Sino-Instrument

Automated Instrument Supplier, CHINA

SMT3151LT liquid level

(pressure/differential

pressure) transmitter

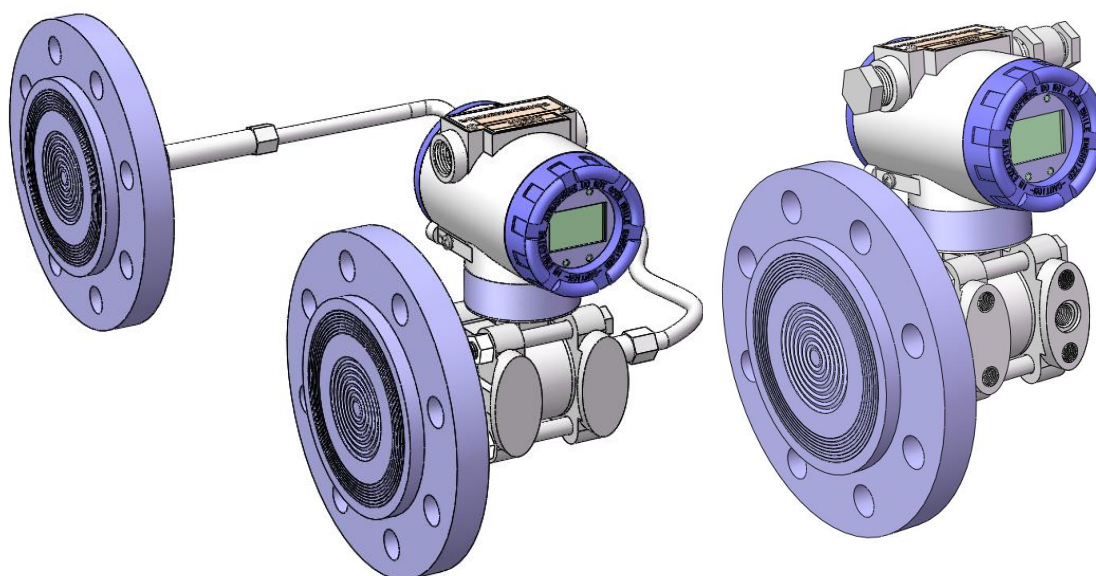
Description

The liquid level (pressure/differential pressure) transmitter is a pressure signal measured at the reference side of atmospheric pressure (low pressure side), with one or two ports for flange (or other connection) and process pipe connection.

Working principle:

On the basis of common pressure/differential pressure transmitter, one or two isolation membrane boxes are added to measure the liquid receiving part. Mainly used for measuring high temperature, easy to solidify or crystallize, containing solid suspended matter, too viscous, corrosive or other needs to maintain sanitary conditions, non-polluting media.

The basic measurement element is the same as the technical performance and technical index of the 3151 pressure/differential pressure transmitter. After adding the remote transmission device, there will be a small decrease in measurement accuracy, slow reaction speed, and the installation position should be paid attention to when the pressure is relatively small, so as to ensure that the measured pressure is within the measurement range of the basic measurement element.



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Liquid level (differential pressure) transmitter

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Liquid level (differential pressure/pressure) transmitter

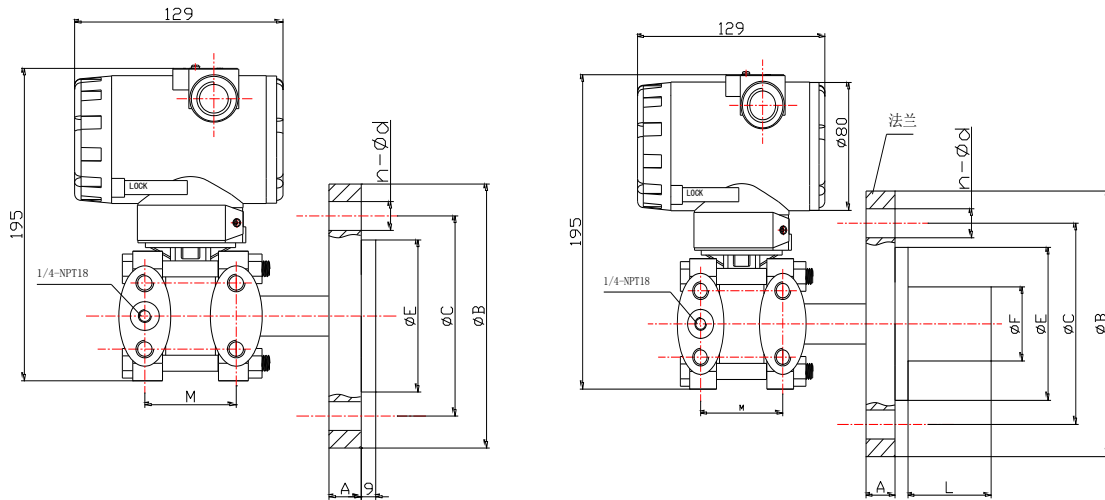
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3151LT Mechanical drawing



3151LT Flange Specification Sheet

Common flange flush type specifications are as follows:

DN50(2 ") flange dimension specification sheet

Flange standard	B	C	E	A	Number of bolts n	Bolt aperture
150LB	150	120	95	19	4	18
300LB	165	127	95	20	8	18
600LB	165	127	95	32	8	18
900LB	215	165	95	45	8	26
PN1.6/1.0	165	125	95	18	4	18
PN2.5/4.0	165	125	95	20	4	18
PN6.4	180	135	95	26	4	22

DN80(3 ") flange dimension specification sheet

Flange standard	B	C	E	A	Number of bolts n	Bolt aperture
150LB	190	152	124	20	4	18
300LB	210	168	124	25	8	22
600LB	210	168	124	38	8	22
900LB	240	191	124	54	8	26
PN1.6/1.0	200	160	124	20	8	18
PN2.5/4.0	200	160	124	24	8	18
PN6.4	215	170	124	28	8	22

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DN100(4 ") flange dimension specification sheet

Flange standard	B	C	E	A	Number of bolts n	Bolt aperture
150LB	230	190	155	24	4	18
300LB	255	200	155	32	8	22
600LB	275	215	155	45	8	26
900LB	290	235	155	50	8	33
PN1.6/1.0	200	180	155	20	8	18
PN2.5/4.0	200	190	155	24	8	22
PN6.4	215	200	155	28	8	26

DN40 Flange size specification sheet

Flange standard	B	C	E	A	Number of bolts n	Bolt aperture
PN1.6/2.5	150	110	84	18	4	18
PN2.5/4.0	150	110	84	18	4	18
PN6.4	170	125	89	26	4	22

Common flange insertion barrel specifications are as follows:

DN50(2 ") flange size specification sheet

Flange standard	B	C	E	F	A	Number of bolts n	Bolt aperture
150LB	150	120	95	48	19	4	18
300LB	165	127	95	48	20	8	18
600LB	165	127	95	48	32	8	18
900LB	215	165	95	48	45	8	26
PN1.6/1.0	165	125	95	48	18	4	18
PN2.5/4.0	165	125	95	48	20	4	18
PN6.4	180	135	95	48	26	4	22

DN80(3 ") flange size specification sheet

Flange standard	B	C	E	E	A	Number of bolts n	Bolt aperture
150LB	190	152	124	74	20	4	18
300LB	210	168	124	74	25	8	22
600LB	210	168	124	74	38	8	22
900LB	240	191	124	74	54	8	26
PN1.6/1.0	200	160	124	74	20	8	18

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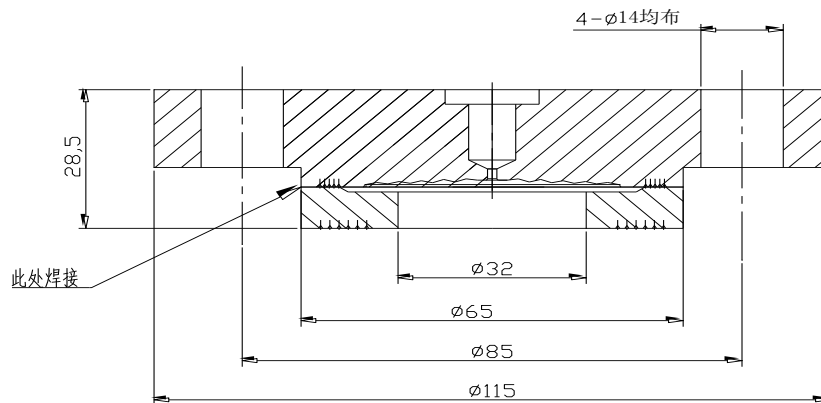
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PN2.5/4.0	200	160	124	74	24	8	18
PN6.4	215	170	124	74	28	8	22

DN100(4 ") flange size specification sheet

Flange standard	B	C	E	E	A	Number of bolts n	Bolt aperture
150LB	230	190	155	89	24	4	18
300LB	255	200	155	89	32	8	22
600LB	275	215	155	89	45	8	26
900LB	290	235	155	89	50	8	33
PN1.6/1.0	200	180	155	89	20	8	18
PN2.5/4.0	200	190	155	89	24	8	22
PN6.4	215	200	155	89	28	8	26

DN25 The specification of small flange is as follows: a washer is added on the basis of ordinary flange to prevent the flange cushion from squeezing the diaphragm



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Liquid level (pressure/differential pressure) transmitter selection specifications table

Model	Transmitter type	
3151LT	Flange liquid level transmitter	
Code	Scale range	
4	0-4.0~40kPa(0-400~4000mmH ₂ O)	
5	0-20~200kPa(0-2~20mH ₂ O)	
6	0-70~700kPa(0-7~70mH ₂ O)	
7	0-210~2100kPa(0-21~mH ₂ O)	
Code	Output form	
E	Linear output 4-20mA _{dc}	
SF	Linear output 4-20mA _{dc} +HART signal	
F	MODBUS-485 signal	
Code	Flange standard (high pressure side flange)	
A	ANSI American Standard (HG20615)	
D	DIN European Standard (HG20592)	
Code	Process connection size	
	ANSI American Standard (HG20615)	DIN European Standard (HG20592)
25	1"	DN25
40	1.5"	DN40
50	2"	DN50
80	3"	DN80
00	4"	DN100
Code	Process connection pressure rating	
	ANSI American Standard (HG20615)	DIN European Standard (HG20592)
A	150LB	PN16/25
B	300LB	PN40
C	600LB	PN64
D	900LB	PN100
Code	High pressure side diaphragm	
A	316 stainless steel	
B	Hastelloy C	
C	Monel	
D	Tantalum	

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E	Titanium			
F	Special Requirements			
Code	High pressure side insert tube length	High pressure side insert cylinder material		
A	0 mm	None		
B	50 mm	316L Stainless steel		
C	150 mm	316L Stainless steel		
D	200 mm	316L Stainless steel		
Code	High pressure side filling fluid			
D	General silicone oil (-40~104℃)			
F	High temperature silicone oil (-40~304℃)			
S	Inert liquid (-40~204℃)			
Code	Low pressure side structural material			
	Flange (joint)	Exhaust/drain valve	Isolation diaphragm	Sensor filling fluid
22	316 Stainless steel	316 Stainless steel	316 Stainless steel	Silicone oil
23	316 Stainless steel	316 Stainless steel	Hastelloy C	Silicone oil
24	316 Stainless steel	316 Stainless steel	Monel	Silicone oil
25	316 Stainless steel	316 Stainless steel	Tantalum	Silicone oil
33	Hastelloy C	Hastelloy C	Hastelloy C	Silicone oil
35	Hastelloy C	Hastelloy C	Tantalum	Silicone oil
44	Monel	Monel	Monel	Silicone oil
S2	A remote transmission device (with a remote transmission device on the low-voltage side)			
Code	Shell material	Conduit inlet dimensions		
A	Low copper aluminum alloy polyurethane coating	M20×1.5		
B	Low copper aluminum alloy polyurethane coating	1/2-14 NPT		
C	Stainless steel	M20×1.5		
D	Stainless steel	1/2-14 NPT		
Code	Optional parts			
M1	0~100% Linear indicator head			
M4	LCD multi - power digital display head			
D1	Side discharge valve at the top (only for the low pressure side of the low pressure side without remote transmission)			
D2	Side discharge valve at the top (only for the low pressure side of the low pressure side without remote transmission)			

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Da	Flameproof ExdIIBT5Gb;(explosion-proof certificate no. : CE16.1163)
Fa	Intrinsically safe ExiaIICT4 / T5 / T6Ga;(explosion-proof certificate no. : CE15.2354X)
CX	With corresponding 316 flushing ring

Selection example: 3151LT4SFA50AAA22AM4Da 0~20kPa