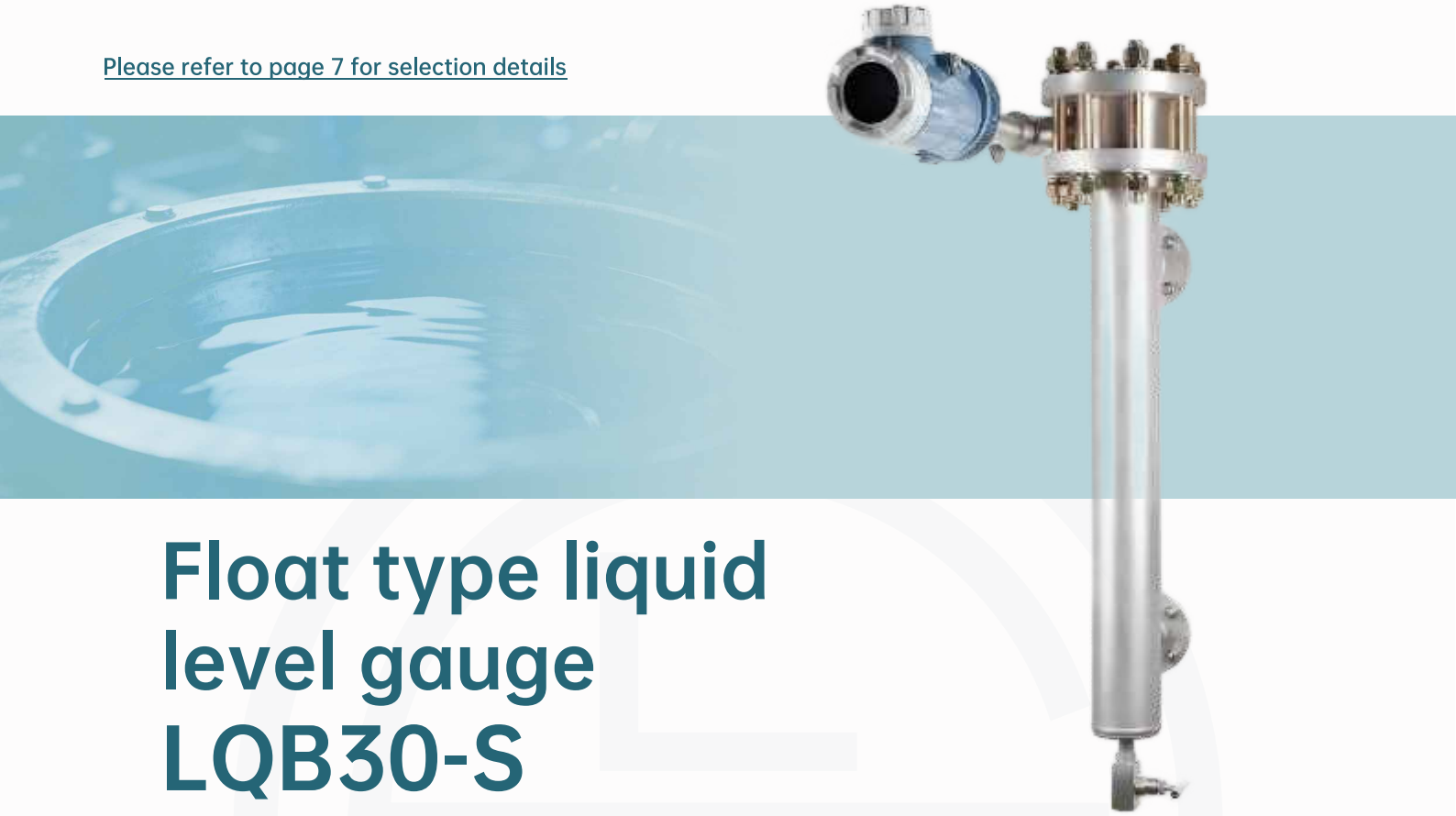
Please refer to page 7 for selection details



Float type liquid level gauge LQB30-S

Overview

The intelligent float level gauge can directly measure the buoyancy of the float in the liquid, effectively solving the influence of static pressure.

The instrument has outstanding characteristics of high temperature and high pressure resistance, providing a good method for liquid level measurement in high-temperature and high-pressure vessels. It has the advantages of high accuracy, good reliability, easy adjustment, wide measurement range, durability, and high cost-effectiveness, and is suitable for continuous measurement of liquid level, boundary position, and density in open or pressurized vessels in the process flow.

The instrument complies with the two-wire 4-20mA transmission protocol and is available in intrinsic safety, explosion-proof, LCD indicator, battery, Hart, and various installation forms, providing users with a wide range of choices. In addition, high-quality circuits and sensing systems ensure excellent performance in various application scenarios.

Function Characteristics

Three line LCD digital display;

High temperature and high pressure resistance, good anti vibration performance, stable quality, and reliable performance;

Adopting a series design and multiple installation methods, it has a wide range of practical applications and can be installed in various storage tanks, process tanks, atmospheric pressure tanks, and pressure vessels;

Intelligent structural design with parameter setting, calibration, and fault notification functions;

Standard two-wire 4-20mA output, no need for dedicated secondary instruments, and can be connected to a computer;

Equipped with temperature compensation and software correction functions;

It has zero removal function and midpoint calibration function.

Application

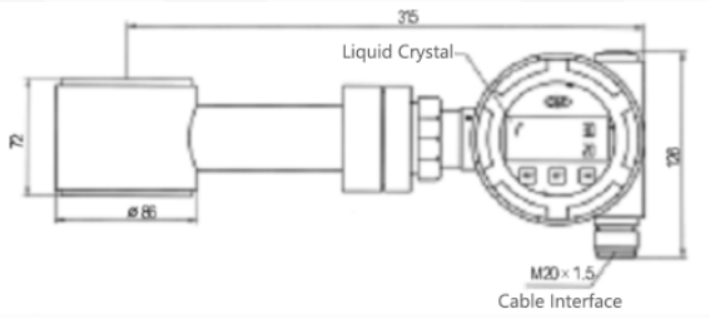
Widely used in industries such as petroleum, chemical power, food, water conservancy, metallurgy, heating, cement, and sewage treatment

Technical Specifications

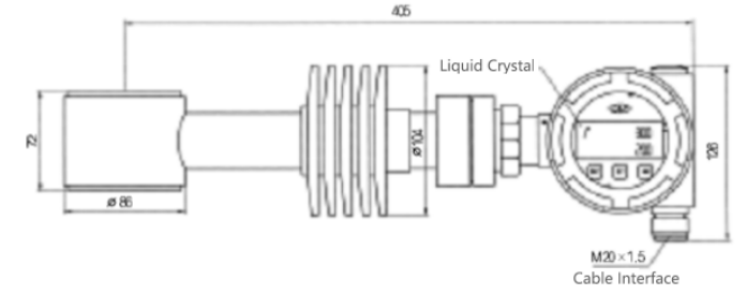
Level Range	0.3~6m (special sizes can be customized)
Accuracy Classaccuracy Class	1.0
Output Signal	4-20mA DC two-wire system, capable of supporting HART protocol
Power Supply	Standard type: 24VDC two-wire system 4~20mA
Battery Type	3.6V@19AH Lithium battery, can be used continuously for one year
Nominal Pressure	Maximum 5MPa (customizable for special specifications)
Ambient Temperature	-40 ℃~+85 ℃ (LCD will not be damaged) LCD works normally -30 ℃~+80 ℃
Medium Temperature	Room temperature -40 ℃~80 ℃ (without heat sink)
	High temperature 100 ℃~200 ℃ (with heat sink)
	Ultra high temperature 200~350 (with heat sink and jacket device)
Medium Density	Liquid level p ≥ 0.4g/cm3, boundary p1-p2 ≥ 0.2g/cm3
Wetted Material	The measuring room is made of carbon steel or 1Cr18Ni9Ti, and the rest is made of 1Cr18Ni9Ti
Shell Material	cast aluminum
Flange Connection	Internal float DN30PN4.0 flange standard DIN2501
External Buoy	Side flange DN50 PN4.0 main flange DN50 PN4.0 flange standard DIN2501 special type: to be selected by the user
Cable Interface	M20 * 1.5 internal thread
LCD (Liquid Crystal Display)	Main screen liquid level display value range: 0-50000 (with decimal point) Pay screen percentage display retains one decimal place
Protection Level	IP65

Indicator Type And External Dimensions

Standard indicator



High-temperature Indicator (100°c ≤ T ≤ 450°c)



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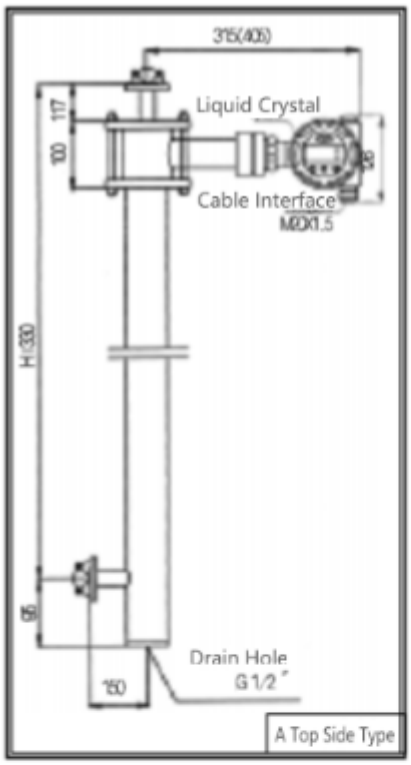
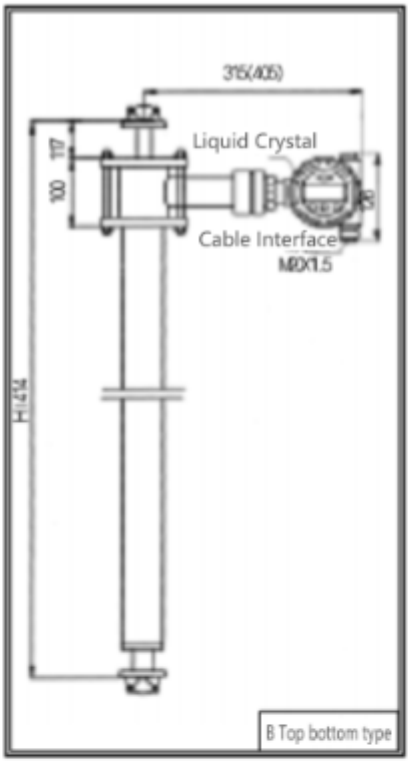
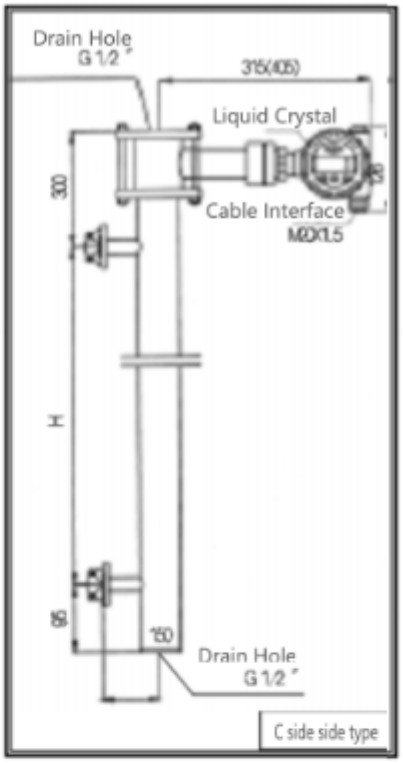
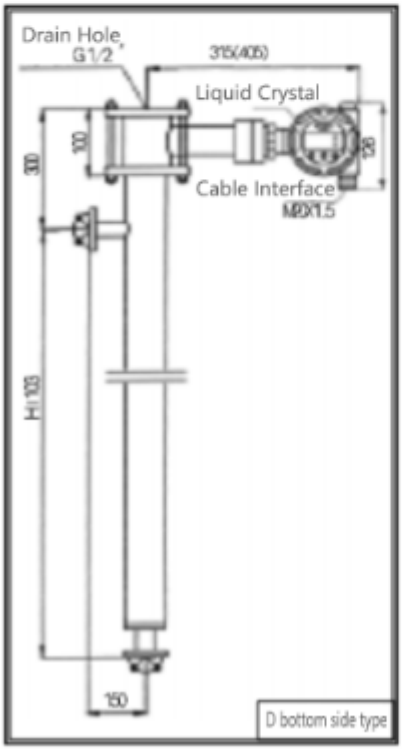
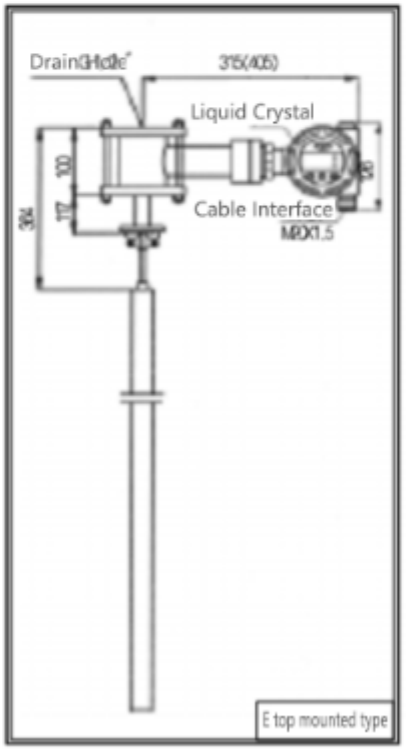
Dimensional Drawing Of External Float

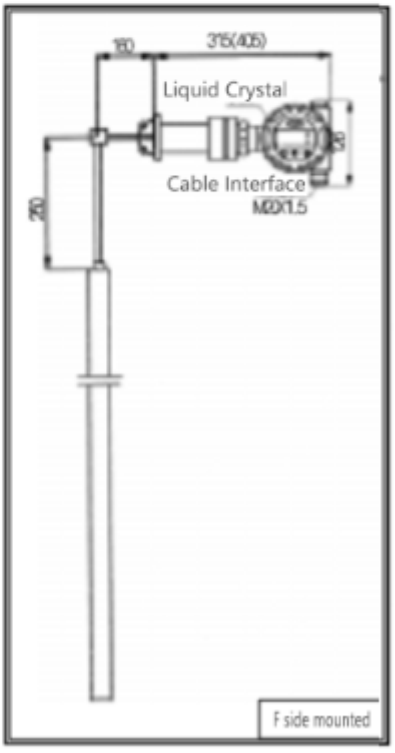












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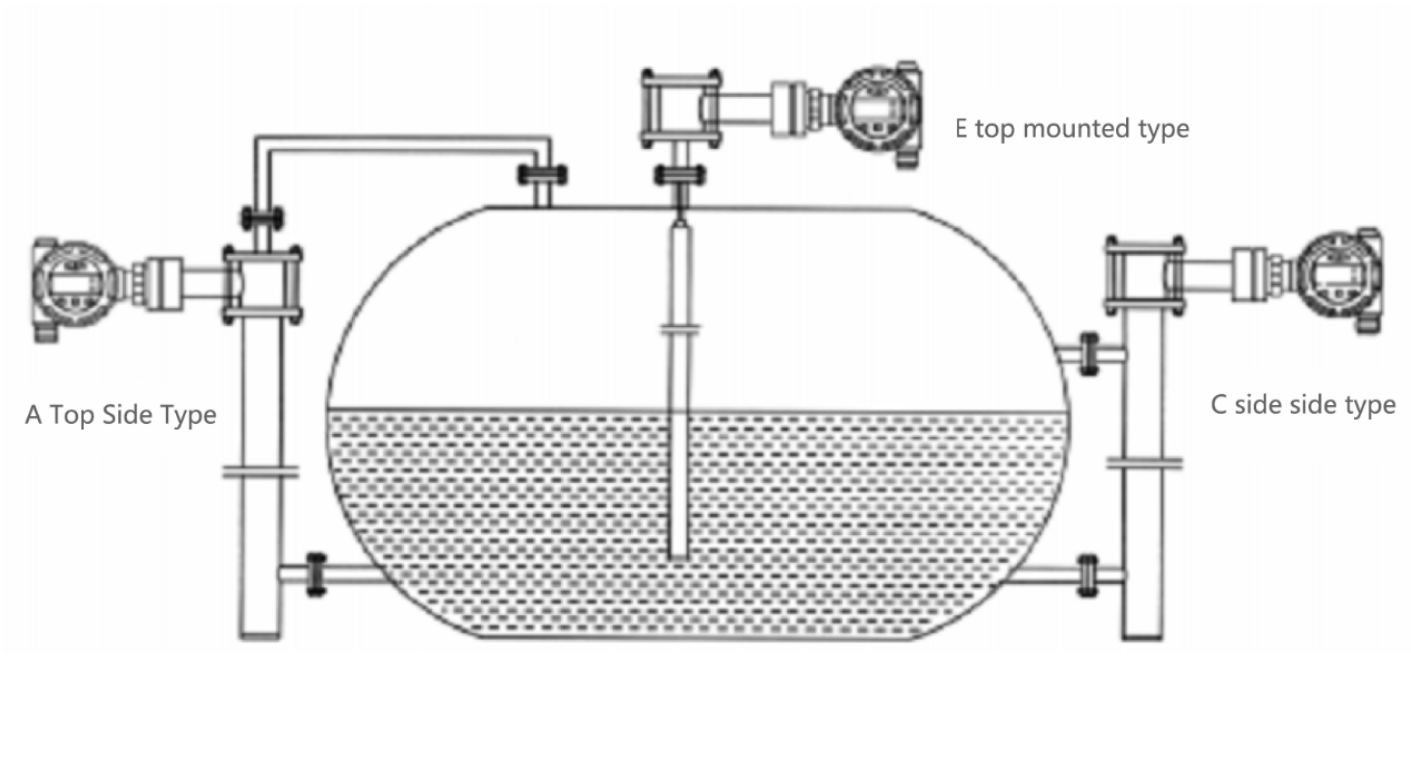
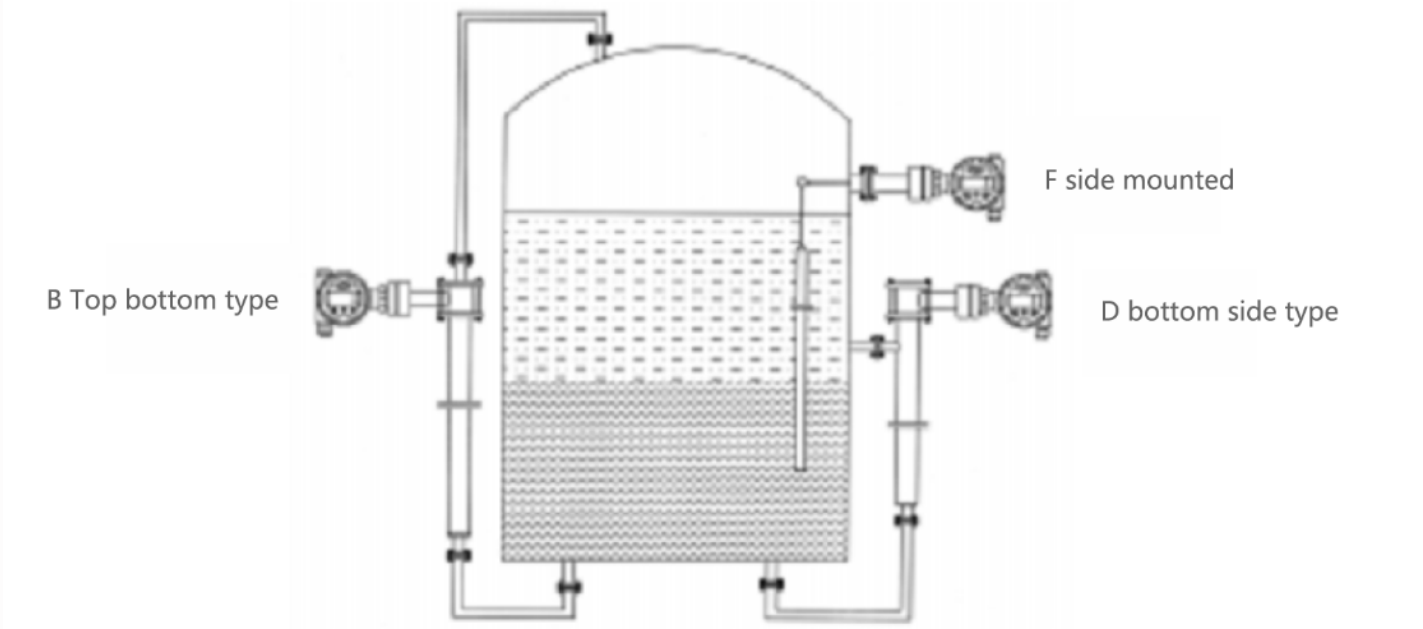
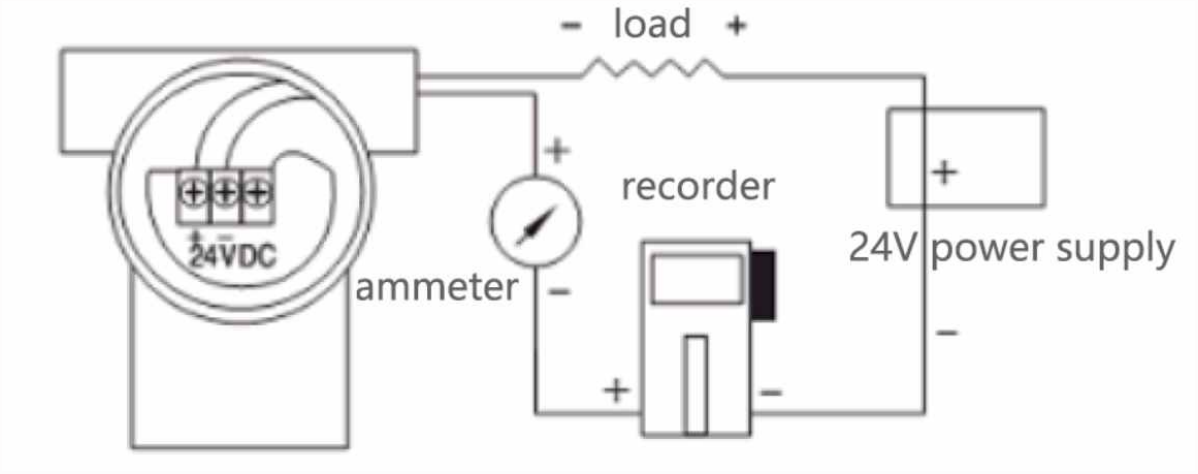
Installation Diagram Of Float



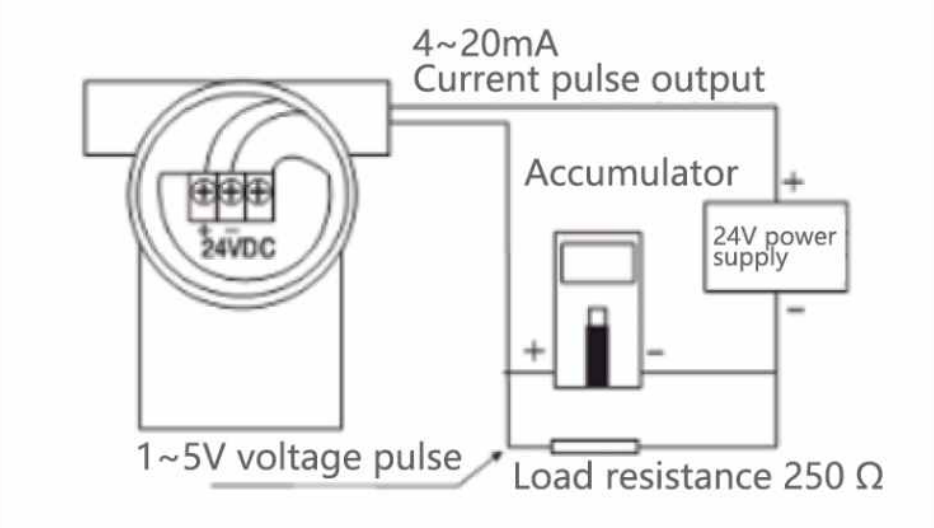


Flange	Nominal diameter DN (mm)customized)	Nominal pressure PN (MPa)	Flange Type	Flange Standard
Install Flange	50	4.0,6.4,16	flat flange	DIN2501
Side Mounted Flange	40	2.5,4.0,6.4,16	flat flange	DIN2501
Heat Tracing Flange	15	2.5	flat flange	DIN2501

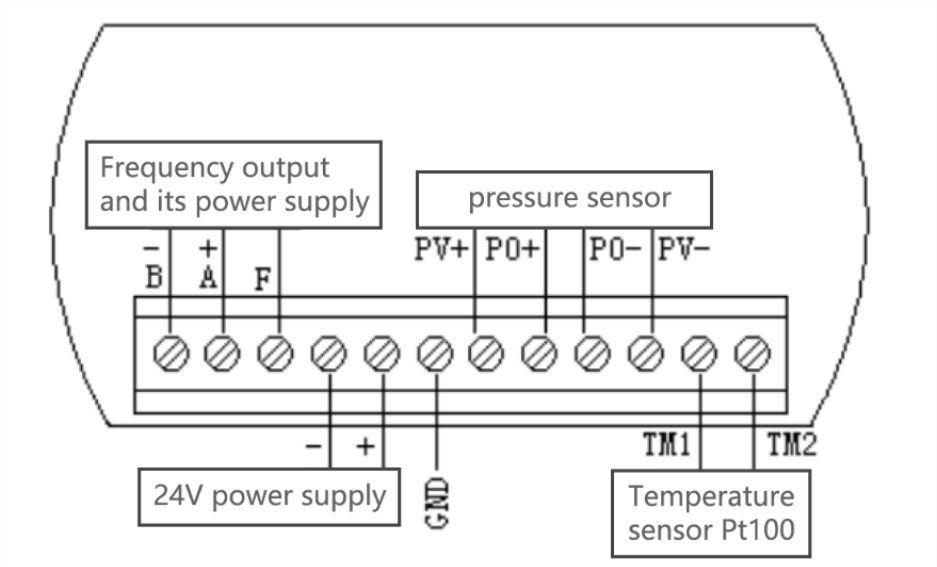
Schematic Diagram Of Instrument Wiring Terminals



2-wire 4-20ma Current Output Terminal



Two Wire Pulse Output Terminal



Hart Communication Terminal

LQB30-S-Selection Composition

Example Of Selection **LQB30-S**

A	G	N	500	U	M	O	S	X	C	D	A	Y	N	P
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

1. Indicator Type	A	Standard indicator (-40 ℃ ≤ T < 80 ℃)
	B	High temperature indicator (80 ≤ T ≤ 450 ℃)
2. Material Of Junction Box	G	Aluminum junction box
	H	Stainless steel junction box (304)
	I	Stainless steel junction box (316)
	J	Aluminum explosion-proof junction box
	K	Stainless steel explosion-proof junction box (304)
	L	Stainless steel explosion-proof junction box (316)
	T( )	Other junction box materials
3. Electrical Interface	N	M20×1.5
	O	G1/2
	P	1/2NPT
	T( )	Other electrical interfaces
4. Measurement Range	R( )	Measurement length (mm)
5. Output Signal	U	4-20mA
	V	4-20mA+HART
	W	No output (compatible with 3.6V lithium battery)
	T( )	Other types
6. Power Supply	M	24VDC
	N	3.6V lithium battery (on-site display, without output)
7. Accuracy	O	±1.0%
	A	±1.5%
	T( )	Other accuracies
8. Material Of Inner Float	S	304SS
	L	316L
	P	321
	M	duplex steel
	T( )	Other materials
9. Material Of Outer Sleeve	X	304SS
	Y	316L
	Z	321
	T( )	Other materials
10. Flange Standards	A	Flange (DIN standard)
	B	Flanges (ANSI standard)
	C	HG/T20592
	D	HG/T20615
	E	EN
	T( )	Other flange standards
11. Form Of Flange Sealing Surface	G	RF
	H	MFM
	I	FF
	J	TIG
	K	RJ
	T( )	Other sealing forms

LQB30-S-Selection Composition

Example Of Selection **LQB30-S**

A	G	N	500	U	M	O	S	X	C	D	A	Y	N	P
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

12. Flange Specifications	A	DN25			
	B	DN50			
	C	DN80			
	D	DN100			
	E	DN150			
	F	DN200			
	G1	2″			
	H1	4″			
	I1	6″			
	J1	8″			
	T( )	Other flange sizes			
13. Flange Pressure Rating	Z	PN6			
	X	PN10			
	Y	PN16			
	M	PN25			
	L	PN40			
	K	PN63			
	J	PN100			
	I	Class150			
	H	Class300			
	G	Class600			
	T( )	Other nominal pressures			
14. Certification	A	Exi			
	B	Exd			
	N	none			
15. Installation Type	M	Top side installation			
	O	Top bottom installation			
	P	Side to side installation			
	Q	Bottom side installation			
	R	Top mounted installation			
	S	Side mounted installation			
	T( )	Other installations			

Explanation:

LQB30-S float type liquid level gauge, indicator is standard type (-40 ℃≤ T < 80 ℃), aluminum junction box, electrical interface M20 * 1.5, measurement range 500mm, output 4-20mA, power supply 24VDC, accuracy ± 1%, inner float material 304SS, outer sleeve material 304SS, flange specification DN25 (HG/T20592), flange sealing surface RF, pressure rating PN16, no explosion-proof, side installation.

Product Certification

Compliance and approval; The Ludwig water quality analyzer meets key standards and certifications for process measurement technology; To ensure the highest reliability in such settings;

Ludwig China Representative Office
Ludwig Automation Instrument (Guangzhou) Co., Ltd | Ludwig International Trade (Shanghai) Co., Ltd
LUDWIG More product information is available www.ludwig-schneider.com.cn
✆ 400-860-9760 ✉ lw@ludwig-schneider.com.cn
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