

WP – LC series cable type static liquid-level transmitter

Product outline



Cable type (standard type)

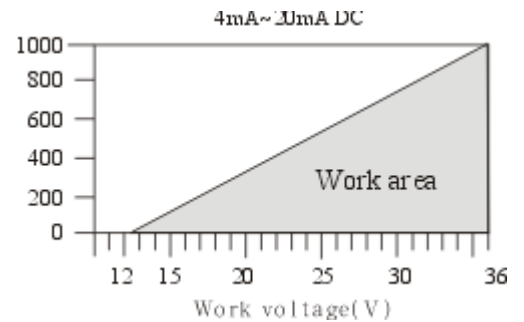
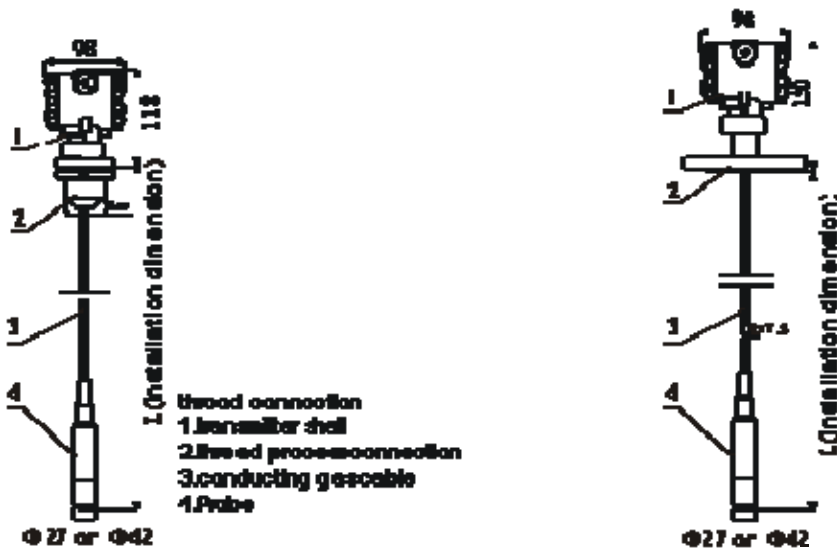


Cable type (integrated type)



Armor type

Outline dimension (unit: mm)



Main features

- Stability: high sensitivity, good long-term stability
- Reliability strong: Without mechanical rotation part, without mechanical wear, without mechanical failure
- Anti-interference ability is strong: waterproof, dust-proof, explosion-proof, corrosion-proof, acid-proof
- Wide applicability: have many kinds of structure form, installation mode and structure material, and suit to various industrial field liquid level measurement.
- Easy installation: usage is reliable, have many kinds of optional installation mode, users may install and use conveniently

Technical parameters

working voltage	12.5 ~ 36 V DC
output signal	4 mA ~ 20 mA DC
measuring scope	0 ~ 100 m (max.)
accuracy	0.2 grade, 0.5 grade
stability	exceed 0.1% FS/year
working temperature	medium -20GRC ~ 60 GRC
	environment -20 GRC ~ 70 GRC
	storage -40 GRC ~ 80 GRC

material contacted with the medium

shell 1Gr18Ni8Ti stainless steel
 seal fluorine rubber
 PTEE
 Sealed weld
 Membrane 316 L stainless steel
 Ceramic capacitance
 Material of guide gas cable combination of polyethylene chloride and nitride rubber

Mode of process connection

outer thread
 flange (approves DN50 PN0.6)

Protection grade

the part of sensor is IP68, connection box is IP65 (K1 shell is IP67)

Working principle

Some point of static pressure in the liquid is in direct proportion related to the distance from this point to liquid surface, that is:

$$h = \frac{P}{\rho \cdot g}$$

Here P ~ pressure (stress) of measured point

ρ ~ medium density

g ~ gravity acceleration

h ~ height from measured point to liquid surface

For his determined measured medium and the place, ρ, g is constant, so variation of position from measured point to liquid surface is only associated with measured pressure (stress).

WIDE PLUS –L series static liquid level transmitter, is that is confirmed the position in liquid surface is determined by measuring the static pressure of measured point.

Selection

Gauge pressure code	Measure scope	Range	Capacitance type overload	Diffusion silicon overload	Capacitance type	Diffusion silicon
G03	0-10KPa, 0-1m	4KPa-20KPa	0.6MPa	15KPa	√	×
G04	0-16KPa, 0-1,6m	6.4KPa-20KPa	0.6MPa	25KPa	√	√
G05	0-20KPa, 0-2m	8KPa-35KPa	0.6MPa	30KPa	√	√
G06	0-25KPa, 0-2,5m	10KPa-35KPa	11.0MPa	40KPa	√	√
G07	0-30KPa, 0-3m	12KPa-35KPa	1.0MPa	45KPa	√	√
G08	0-35KPa, 0-3,5m	14KPa-35KPa	1.0MPa	55KPa	√	√
G09	0-40KPa, 0-4m	16KPa-70KPa	1.0MPa	60KPa	√	√
G10	0-60KPa, 0-6m	24KPa-70KPa	1.0MPa	90KPa	√	√
G11	0-100KPa, 0-10m	40KPa-100KPa	1.0MPa	1 50KPa	√	√
G12	0-160KPa, 0-16m	64KPa-200KPa	1.8MPa	250KPa	√	√
G13	0-200KPa, 0-20m	80KPa-200KPa	1.8MPa	300KPa	√	√
G14	0-250KPa, 0-2,5m	100KPa-350KPa	2.5MPa	400KPa	√	√
G15	0-400KPa, 0-4m	160KPa-700KPa	2.5MPa	600KPa	√	√
G16	0-600KPa, 0-6m	240KPa-700KPa	4.0MPa	1.0MPa	√	√
G17	0-1.0MPa, 0-10m	0.4MPa-10MPa	4.0MPa	1.5MPa	√	√

NOTE: “x” means donot provide; “√” means provide by standard range.

Model													Explanation	
WIDE PLUS -L	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Type	C												C standard cable type (cable temperature ≤70) (note 1)	
													C1 integrated does not carry the connection box (note 1)	
														C2 integrated carries the connection box (note 1)
	R												Pole type (note 1)	
	D												Direct-mounting type (note 1)	
G													Armored cable type (note 1)	
													G1 armored pipe for 1 Gr18Ni9Ti	G2 armored pipe for 316 SS
Explosion-proof rank	S												Standard type (no explosion-proof)	
	D												Isolated explosion type Exd IIBT6 or Exd IICT6 (K1 outline)	
	I												Intrinsic safety type ExibIICT6 or ExialICT6	
Material of process connection	1												316 L SS	
	2												304 SS	
	3												1Gr18Ni9Ti SS	
	9												Special requirement	
Mode of process connection	T												Outer thread G11/2	
	F												Flange (note 2)	
	Y												Special appointed	
Membrane material	A												Membrane of diffusion silicon	A1: standard type
	C												Ceramic capacitance membrane	A2: super stable type
Material of seal element	1F												Fluorine rubber	
	2F												Nitrile rubber	
	3F												PTEE (does not apply for diffusion silicon)	
	4F												Full sealed weld (only used to diffusion silicon)	
Mode of signal output	2												(4 ~ 20) mA DC two wire system	
	9												Special requirement	
Display mode	A												No field indication	
	B												0 ~ 100% linear display	
	C												LCD digital range display (liquid crystal)	
	D												LED digital range display (numeral tube)	
	E												0 ~ 100% LCD digital display	
	F												0 ~ 100% LED digital display	
Accuracy grade	1												0.1 grade (note 3)	
	2												0.2 grade	
	5												0.5 grade	
Counterpoise	H												No counterpoise	
	Z												Standard counterpoise (please provides flow rate, density)	
	Y												Special requirement	
Installation dimension											<input type="checkbox"/>	It only limited cable type and pole type (note 4)		
Measuring scope												<input type="checkbox"/>	See the standard range table for WIDE PLUS -L series universal pressure transmitter	
Option gives an example	WIDE PLUS -LCS1FA1F2A5H													

Note: approves K1 outline

Notice to the order: density of liquid medium (), temperature ()

The range of liquid level h = ()m

Cable type: cable length L = () m

Pole type: insert depth L = () m (distance from the probe to flange)

Note 1: The integration is that mode for which adopts import the sensor with stainless steel isolation membrane and high-performance special amplification circuit be directly packed in the probe.

Note 2: cable and pole type liquid-level flange approves DN 20 PN 0.6 MPa, direct-mounted liquid-level flange approves DN 50 PN 1.6 MPa, threaded type approves the thread is G1 1/2, special demand please noted it when ordering.

Note 3: 0.1 grade precision can be realized only if it should be employed the membrane material of super stable diffusion silicon (A2).

Note 4: Installation dimension used in the cable and pole transmitter, if measuring range of well water-level is 10 m, installation dimension is 11 m, then extra 1 m use to installation regulating, actual measurement is 10 m and does not notice. Cable type approves height regulation is 1 m pole type users should be detail noted the installation dimension.

Note: Guide gas cable of cable liquid-level transmitter adopts high-performance environmental protection material such as import abrasion-proof, weak acid-proof (concentration), anti-low temperature, and may apply to food, medicine and other survey field.