

HNL100-A

ULTRASONIC LIQUID LEVEL SENSOR

PRODUCT INTRODUCTION

The HNL100-A ultrasonic level gauge/liquid level meter is a versatile device that draws on the strengths of various level gauges both domestically and internationally. A universal level gauge that implements a fully digital and humanized design concept, with complete level measurement and control, data transmission, and human-machine communication functions.



PRODUCT PRINCIPLE

This product adopts modular circuit design, military grade multi-layer PCB board, tight hardware structure, and reasonable layout. This product supports isolated 4-20mA output, built-in wireless data transmission such as GPRS, GPS, Bluetooth, etc. It supports MiniSD card data acquisition or USB storage, and can also add modules to achieve other functions according to customer needs.

This product uses imported industrial grade chips, digital temperature compensation, etc. Related specialized integrated circuits. It has strong anti-interference ability, can freely set upper and lower limit nodes and online output adjustment, and has on-site display. The shell is made of engineering plastic ABS waterproof shell, which is compact and quite sturdy.

This product can meet most liquid level and material level measurement requirements without contact with industrial media, completely solving the disadvantages of traditional measurement methods such as pressure, capacitance, float, etc., such as entanglement, blockage, leakage, medium corrosion, and inconvenient maintenance. Therefore, it can be widely applied in various fields related to material level and liquid level measurement and control.

PRODUCT FEATURES

- ❶ Wide voltage adaptation range, capable of operating within a DC voltage range of 12-24V
- ❷ Backup and restore settings function
- ❸ Capable of measuring multiple physical quantities and functions
- ❹ Adjustable analog output function
- ❺ It has the function of freely setting the starting and ending points of the full range
- ❻ Support custom serial port data format Support three - and four wire systems
- ❼ Featuring value-added/differential distance measurement options, it can measure both distance and level
- ❽ Has 0-100 level emission pulse intensity, can be set according to working conditions
- ❾ Equipped with built-in GPRS module, radio module, and Bluetooth module
- ❿ When placing an order, select the following items from the Chinese and English menu interface of the OLED display screen
- ⓫ 3-channel limit NPN collector open circuit control output setting, used for material level and liquid level control
- ⓬ 2-channel relay control output setting, used for material level and liquid level control
- ⓭ 4-20mA current output, RS485 serial data output, or analog output such as 0-5V voltage, optional
- ⓮ Wireless transmission methods: radio, GPRS, Bluetooth
- ⓯ Select PC serial port output and conversion accessories, which can be directly connected to the PC unit network

TECHNICAL PARAMETER

NAME	SPECIFICATION
Range	5, 8, 10, 12, 15, 20, 25, 30, 35, 40m (to be selected when ordering)
Blind zone	<0.4-2m (different from range)
Error	±0.3%F.S

Display	OLED Chinese English menu (with self illuminating)
Minimum display resolution	1mm
Keyboard	Three light patch buttons
Working frequency	20~350KHz (varies depending on model specifications)
Power supply mode (optional)	12-24VDC or 220VAC
Output method (optional)	4~20mA RL>600 Ω (standard) 1~5V\1~10V RS485 (optional Bluetooth conversion accessory) GPRS 3-channel NPN (configurable as PP pulse output) 2-channel relay (AC: 5A 250V DC: 10A 24V)
Instrument material	ABS engineering plastic
External dimensions	Φ92mmx198mmxM60、Φ92mmx270mmxDN80
Electrical interface	M20X1.5 (two sets)
Install interface	M60X2 or Φ 61MM round hole (with large nut), DN80 non-standard
Incoming cable	There are wiring terminals inside, which can be customized by the user
Work environment	Normal temperature and pressure
Protection level	IP65 (customizable for higher protection levels)
Explosion proof grade	Exia IB T4 Ga (order and purchase)

WIRING DIAGRAM

Wiring Definition	Local wiring terminal	Local use
Power supply	⑤ DC12~24V+	■yes / □ no
	⑥ DC12~24V-	
Current output	⑨ 4~20mA	■yes / □ no
Serial port output	③ RS485(A)	□yes / □ no
	④ RS485(B)	
Relay control output I	① J1_COM	□yes / □ no
	② J1_NO	
Relay Control Output II	⑩ J2_COM	□yes / □ no
	⑪ J2_NO	

HNL100-A ULTRASONIC LEVEL GAUGE

SELECTION TABLE

NAME	CODE	CODE DESCRIPTION
Range	1	5m
	2	8m
	3	10m
	4	12m
	5	15m
	6	20m
	7	25m
	8	30m
	9	35m
	10	40m
Power supply mode (optional)	1	12-24VDC
	2	220VAC
Output method (optional)	M	4~20mA RL>600 Ω (standard)
	V	1~5M1~10V
	R	RS485 (optional Bluetooth conversion accessory)
	D	GPRS
	E	3-channel NPN (configurable as PP pulse output)
	F	2-channel relay (AC: 5A 250V DC: 10A 24V)
External dimensions	1	Φ92mmx198mmxM60
	2	Φ92mmx270mmxDN80
Installation interface	A	M60X2
	B	61MM round hole (with large nut)
	C	DN80 non-standard
Work environment	1	normal atmospheric temperature
	2	Normal pressure