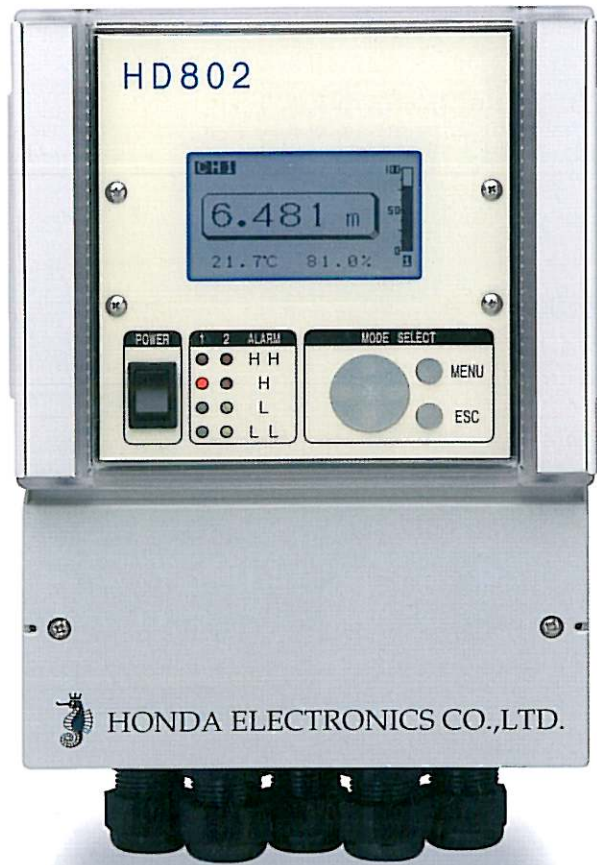


# Ultrasonic Level Meter HD801 HD802

Measures a wide range of distances.  
Provides both 1-channel and  
2-channel measurement.



## Product overview and features



The sensor transmits ultrasonic signals to an object or material (liquid/powder) and receives the reflected signals. The meter then measures the elapsed time and calculates the distance.

- **Wide measurement range**  
Measures a wide range of distances: from 0.3 to 12 m.
- **Four alarm output lines for each channel**  
Four alarm output lines are provided to enable various controls for each channel.
- **The standard equipment configuration includes RS-485**  
The RS-485 is provided as part of the standard configuration to enable remote control at a distance of up to 1,200 m.  
The MODBUS protocol is provided as part of the standard configuration, enabling communication with a PLC.
- **Level difference output (HD802 only)**  
Provides a function to output differences in levels (channel 1 – channel 2).
- **Weir flowmeter function (HD801 only)**  
Provides a weir flowmeter function.
- **Standard and chemically-resistant sensors are available.**  
Select the sensor appropriate for the operating environment.
- **Up to eight alarm output lines (HD802 main unit only)**  
Up to eight alarm output lines can be set when using HD802 main unit with a sensor.

## Applications and examples



- Liquid/powder level management for a tank inside a machine
- Water level measurement for lakes, ponds, or rivers



■ Liquid level measurement ■ Powder level measurement ■ Application to large weir

## Standard specification

Model No.	HD801	HD802
Number of channels	1CH	2CH
Frequency		40 kHz
Object to be measured		Liquid/powder
Measurement distance range (1/2 for powder)		0.3 to 12 m
Resolution	Measurement	1 mm
	Display	1 mm
Accuracy		±0.25%F.S. (±3 cm)
Data update cycle		1.3 sec.
Sensor directivity angle (beam angle)		12° (Chemical resistance: 22°)
Power supply	Voltage	AC85 to 264 V
	Power consumption	15 VA
Display		LCD (with backlight)
	Alarm output	4 lines for each channel
		AC250V, DC30V 5 A (Relay contact)
Output	4-20 mA current output (maximum load resistance)	16 bits for each channel RL (MAX) = 600 Ω
Interface		RS-485 (Max. transmission range: 1,200 m)
	<b>Main unit</b>	<b>Sensor</b>
Operating ambient temperatures		-20 to 70°C
Material	ABS	Standard: Epoxy and PP Chemically-resistant: PVDF
Protection standard		IP66
Dimensions (W x D x H)	185 x 85 x 235 mm	Standard: φ84 x 60 mm Chemically-resistant: φ98 x 57 mm
Sensor cable length	—	5 m
Maximum sensor cable length	—	200 m
Distribution cable length	Not supplied	—
Weight	1.8 kg	Standard: 500 g Chemically-resistant: 860 g
Sensor attachment screw (old JIS)	—	Standard: R1 (PT1) Chemically-resistant: G1 (PF1)

For details on materials, see the footnote on page 10.

## Option

- PROFIBUS communication converter