

# Ultrasound, sensing the level

## One step ahead of the world



## Dual-frequency non-contact level detection

Y050B 50/200 kHz air transducer

Long sensing range

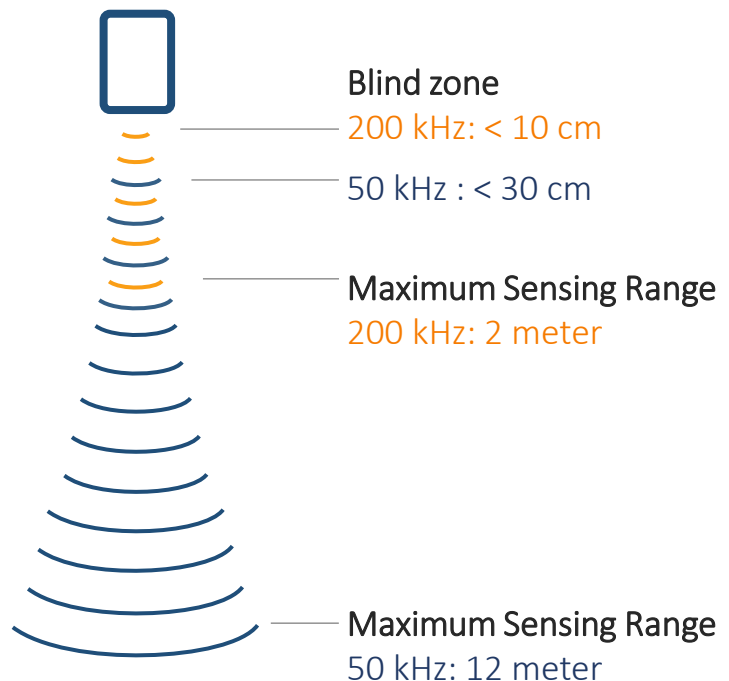
Short blind zone

High resolution

High reliability

PVDF housing

Patented technologies



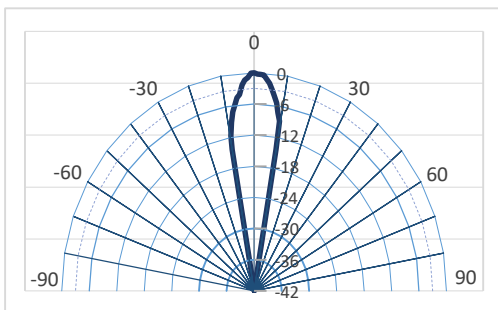
Y050B is a novel dual-frequency ultrasonic air transducer working as a signal transmitting and receiving unit. The dual-frequency transducer can detect as long as up to 12 meter range at 50 kHz operating mode along with only 10 cm blind zone at 200 kHz mode. This ultrasonic transducer is particularly suitable for non-contact level detection and proximity measurement with high resolution, long sensing range, short blind zone as well as exceptional reliability.

## Specifications

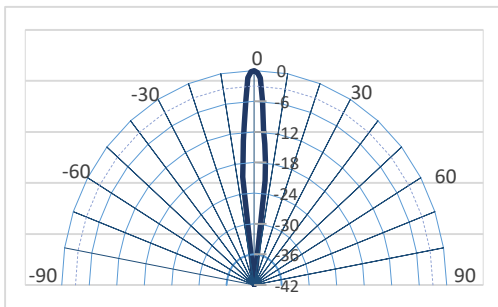
Y050B (P/N: H2KY050KB1CD00)	50 kHz	200 kHz	
Operation Frequency	50	200	kHz
Capacitance (@ 1 kHz, 1Vrms)	1500	1500	pF
Directivity (Full Angle @-3 dB)	10	6	Degree
Maximum Driving Voltage ( 2% Duty Cycle Tone Burst )	1000	1000	Vpp
Maximum Sensing Range	12	2	meter
Blind Zone	< 30	< 10	cm
Operating Temperature	-40°C to +85°C		

## Directivity Diagram

50 kHz



200 kHz

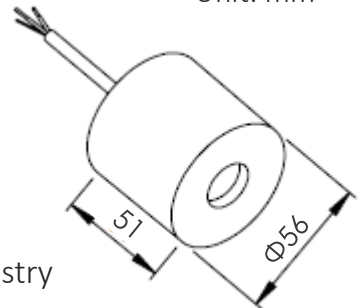


## Major Applications

- Proximity measurement
- Non-contact level detection
- River level monitoring
- Petrochemical industry
- Food and beverage industry
- Water supply and drainage industry
- Grain, powder, granular material level detection

## Dimensions

Housing material: PVDF  
Unit: mm



As Unictron continues to improve its products, all specifications are subject to change without notice. All specifications are typically measured at  $25 \pm 3^\circ\text{C}$ , 45 to 60% RH.