



# Asymmetric Ultrasonic Sensor Specification

## Series FHDA14A

Model Number: FHDA14A09LFPM

Version 1.0

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# 1. ELECTRICAL SPECIFICATIONS



**Model No.:** FHDA14A09LFPM

**Description:** AUS 14D 9H 10V PIN ALUMINIUM RoHS

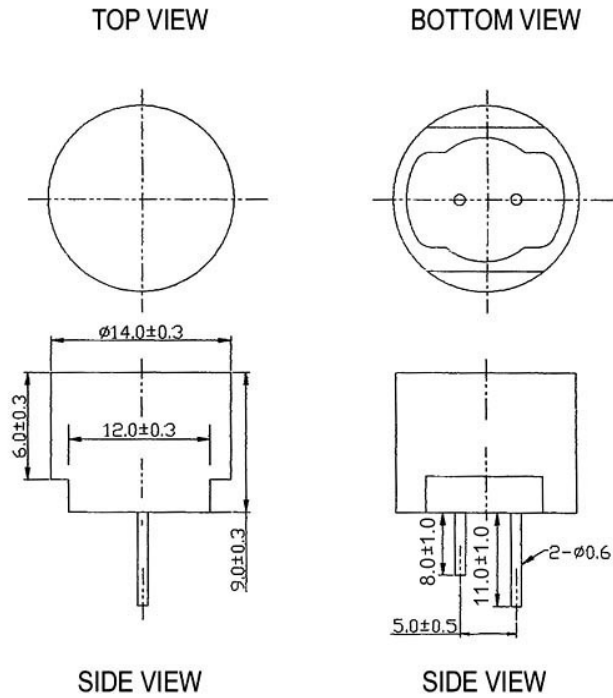
MODEL NO.	FHDA14A09LFPM	
CONSTRUCTION	WATERPROOF TYPE	
FUNCTION	TRANSMITER & RECEIVER	
DIAMETER ( A ) $\pm 0.3$	mm	$\varnothing 14.0$
HEIGHT ( B ) $\pm 0.3$	mm	9.0
SOUND PRESSURE LEVEL ( 0dB = 0.0002 ubar )	Min. 95.0 dB ( 10.0 V rms Sine Wave / 30.0 cm )	
SENSITIVITY	Min. - 82.0 dB ( v / ubar )	
CENTER FREQUENCY	Hz	40000 $\pm$ 1000
Directivity ( deg ) X - axis	120.0 $\pm$ 15.0	
Directivity ( deg ) Y - axis	60.0 $\pm$ 10.0	
CAPACITANCE AT 1KHz	pF	1800 $\pm$ 15 %
ALLOWABLE INPUT VOLTAGE	p-p	140V ( 40 KHz ) Pulse width 0.5 ms / Interval 20 ms
HOUSING MATERIAL	ALUMINUM	
OPERATING TEMPERATURE	$^{\circ}$ C	- 40.0 ~ + 80.0
WEIGHT	3.0 g	

## 2. PHYSICAL DIMENSION

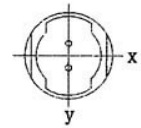
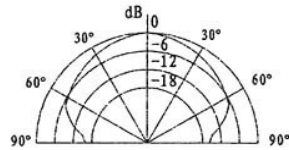


All dimensions stated are in mm

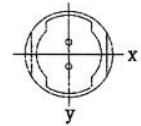
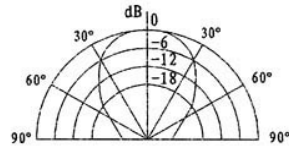
Tolerance:  $\pm 0.5\text{mm}$



Testing conditions  
 Frequency 40KHz  
 Input voltage Rectangle wave 10Vp-p  
 Distance 10cm



X-axis Directivity In Sound Pressure Level



Testing conditions  
 Frequency 40KHz  
 Input voltage Rectangle wave 10Vp-p  
 Distance 31.6cm 18.4deg

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## Revision History

Revision	Date	Description
1.0	2011.01	First Released

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