IA3104
Contact Ultrasound Sensor

Introduction

The Contact Ultrasound Sensor is purpose-built for leak detection in valves handling pressurized gases and liquids. Utilizing advanced ultrasonic sensing technology, it precisely capture high-frequency acoustic signals generated by internal leaks within the valve. Powered by intelligent analysis algorithms and a process-driven inspection workflow, the system enables end-to-end automation—from data acquisition and feature extraction to leak identification. This significantly enhances detection efficiency and accuracy in complex industrial environments.

Ideal for predictive maintenance and fault diagnosis of critical assets such as oil pipeline valves and cooling system valves in nuclear power plants, the Contact Ultrasound Sensor empowers organizations to implement proactive and data-driven maintenance strategies.

Ultrasound	
Center frequency	40 kHz
Frequency range	15 - 70 kHz
Peak Sensitivity	> 75 dB ISO 12714: 1999
Noise Floor	＜10 μVRMS(15 - 70 kHz)

Environment	
Operating temperature	-20 to +50 ℃
Storage temperature	-20 to +70 ℃
Operating humidity	10 to 95 %, no cond.

General	
Size	35 × 40 × 135 mm, not including waveguide
Weight	350 g
Power consumption	0.8 W
Safety regulations	IEC 61010-2-033:2023
Drop test	1.5 m
EMC	IEC 61326-1
Power supply	IEPE(28V, 6mA)

Ordering Information

name	model	Description
Contact Ultrasound Sensor	IA3104	Non-explosion-proof version
IECEx Contact Ultrasound Sensor	IA3105	Explosion-proof version