

AIRSense datasheet (FU.SEN.AIR.001)

Description:

AIRSense is an airborne ultrasound sensor that connects to specific SDT instruments via a spiral cable with two LEMO7 inputs. Its primary design and function are to detect sources of airborne ultrasound including positive and negative pressure leaks, electrical partial discharge, mechanical defects in belt drives, chain drives, and direct coupled shafts. AIRSense detects signals generated by T-Sonic1 and T-Sonic9 ultrasound transmitters and is therefore applicable to tightness inspections. This sensor is also compatible with some accessories like a parabolic extension "EDS" (FUSEACEDS-02)



Specifications:

General		
Function		Airborne ultrasound sensor
Compatibilities		SDT 340 and ULTRAChecker only
Certifications		EMC, ROHS
Center frequency (at 20 °C)	kHz	40 ± 1
Useful bandwidth (attenuation of -6 dB)	KHz	2.0 [38.4-40.4]
Sensitivity (at 40 kHz; 0dB = 1 V/Pa)	dB	-11 considering built-in gain (+ 4 with EDS (geometric gain : +15dB))
Total beam angle (- 6 dB)	°	55 (8 with EDS accessory)
Built-in preamplifier	dB	+30 (can be deactivated)
Environmental		
Operating temperature range	°C (°F)	-30 to +70 (-22 to +158)
IP rating		40
Mechanical		
Housing material		ABS/PC
Dimensions	mm	
Weight	g (oz)	210 (7.4)
Connector		7-pole female LEMO

Kit content (FS.SEN.AIRS.001):

Reference	Description
FU.SEN.AIR.001-01	AIRSense – Airborne US Sensor (S/N 007 YY NNNN)
SAMR270PISH-02	Precision indicator
SAMR270CSH-02	Cap for sensor holder
SIRUBSENS18MMSI	Rubber for sensor \varnothing 18 mm

Additional accessory:

Reference	Description
FU.SEACEDS-02	Extended Distance Sensor

Safety recommendations:

- Do not expose the sensor to rough handling or heavy impacts.
- Always read and follow the user manual
- Opening the housing of the sensor may result in hazardous mishandling and voids warranty
- The equipment should not be used in areas where there is a risk for explosion
- Do not expose the equipment to high humidity or direct contact with water
- All repair work should be performed by SDT or authorized services
- Using the sensor with non-SDT instruments cause internal damage

*The information herein is believed to be accurate to the best of our knowledge.
Due to continuous research and development, specifications are subject to change without prior notice.*

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2	CMA 2020/12/15	New layout, additional picture, adding temperature range & material	CGR 20/01/2021
1	CGR 05/06/19	Original version	CMA
Ver.	Editor	Nature of modification	Verified