Ultrasound Solutions

Commercial document **DC.CP2.DAT.002**

Threaded RS1T and RS1T ATEX Datasheet

Description:

The RS1T sensor is an ultrasound contact sensor you can mount on machines using the provided accessories.

A piezoelectric crystal glued on a mechanical resonant structure ensures the transduction from vibration to electric signal.

Specifications:

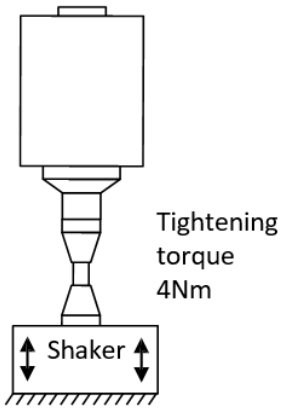
General		
Function		Ultrasound contact sensor
Model recognition		FUSCRS3(A=ATEX)
Certifications		EMC, ROHS and ATEX
Center frequency (at 20°C)	kHz	37.2 ± 0.5
Thermal deviation of the center frequency	Hz/°C	-10
Measurement bandwidth	kHz	4
RMS sensitivity within the bandwidth	mV/g	23 ± 2dB
Environmental		
Operating temperature range	°C (°F)	-10 to 40
IP rating		50
Specifications for ATEX version To be used with SDT ATEX devices only		Ex II(1) G / Ex ia II C T3/T2 Ga
Mechanical		
Housing material		303 Stainless steel
Dimensions	mm (in)	∅32 (1.26) x 88 (3.46)
Weight	g (oz)	126 (4.44)
Connector		LEMO 7 female
Thread type		M6 x 5 mm (~0.2)
Recommended mounting torque	N.m	4

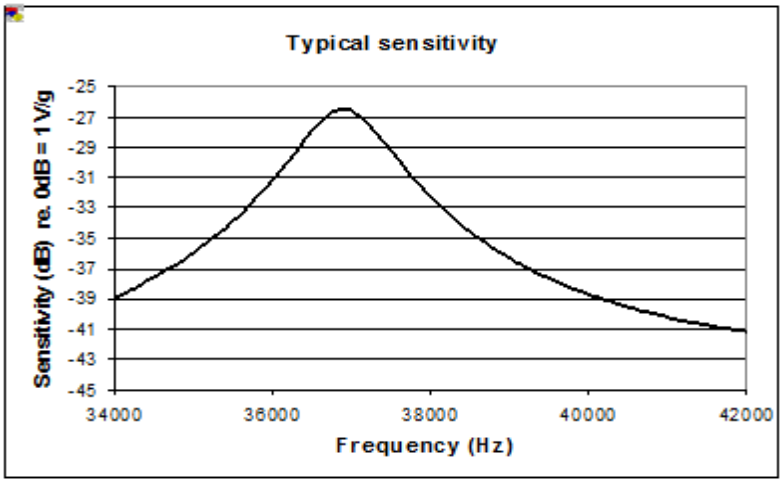
The foot is a part of the resonant structure, please do not disassemble it!

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.

NB: Additional specifications are available from the download section of SDT web site: www.sdtultrasound.com

Test conditions



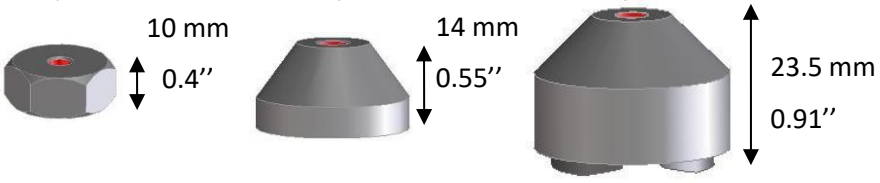


RS1T

FUSCRS3

84 mm

3.31''



Mounting Pad

FUSEACMP1

Flat mag. foot

FUSEACMAG-01

Curved mag. foot

FUSEACMAG-02

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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.
- Do not use the sensor 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.
- Using the sensor with non-SDT instruments can cause internal damage.

3	CMA 22/12/2020	New layout + additional info + fusion ATEX-non-ATEX version	CGR
2	-	-	-
1	-	Original version	-
Ver.	**Editor**	**Nature of modification**	**Verified**