

LUBESense1 Datasheet (both IP versions)

Description:

LUBESense1 are ultrasound resonant sensors optimized for assistance during lubrication. LUBESense1 consists of a PZT piezoelectric ceramic glued on a mechanical resonant structure. The sensor is housed in stainless steel and further protected in a Nitrile Butadiene Rubber cover. The interface is a 7-pin female LEMO connector mounted in an aluminum cover, offering two IP ratings. The sensor is mounted on assets using provided accessories.



Specifications:

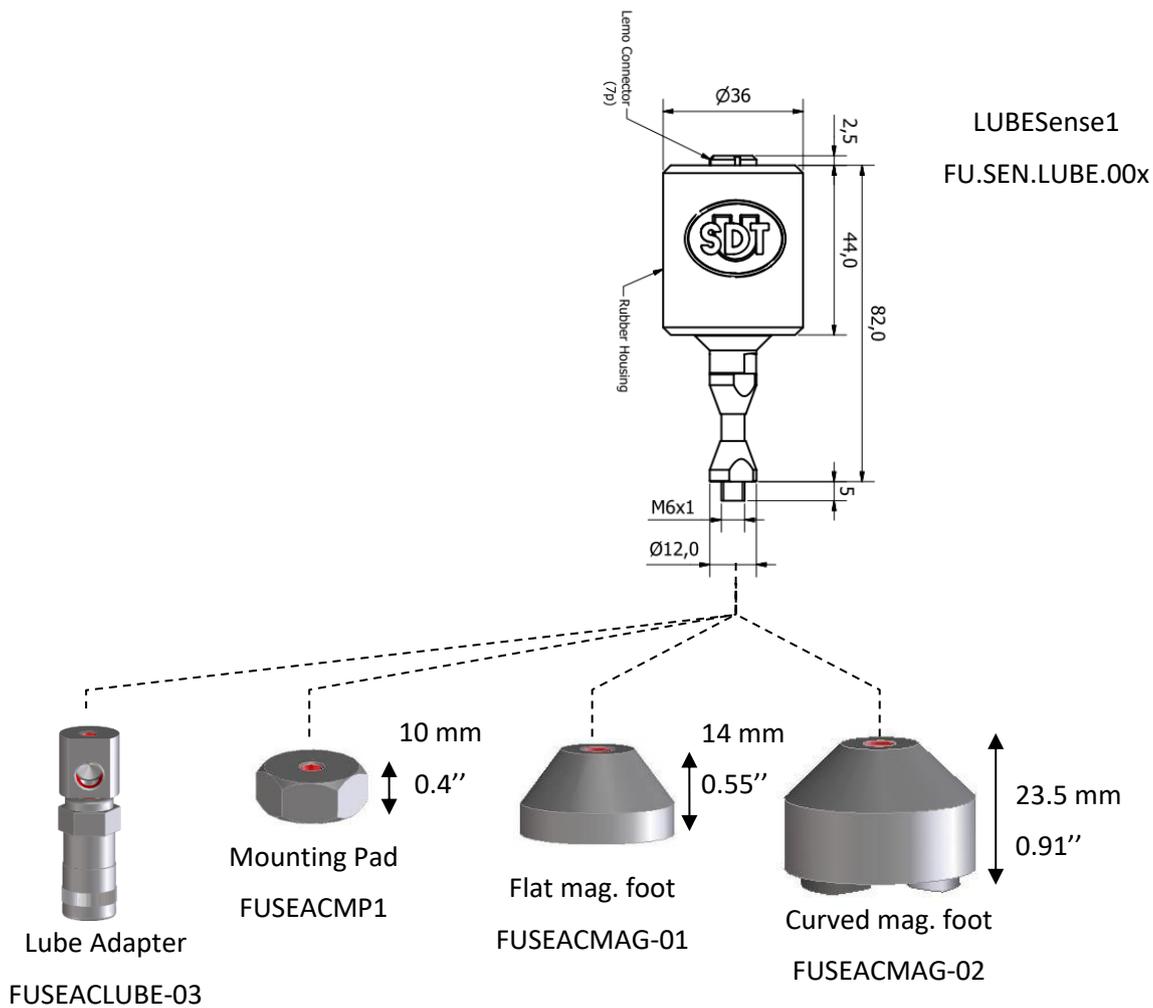
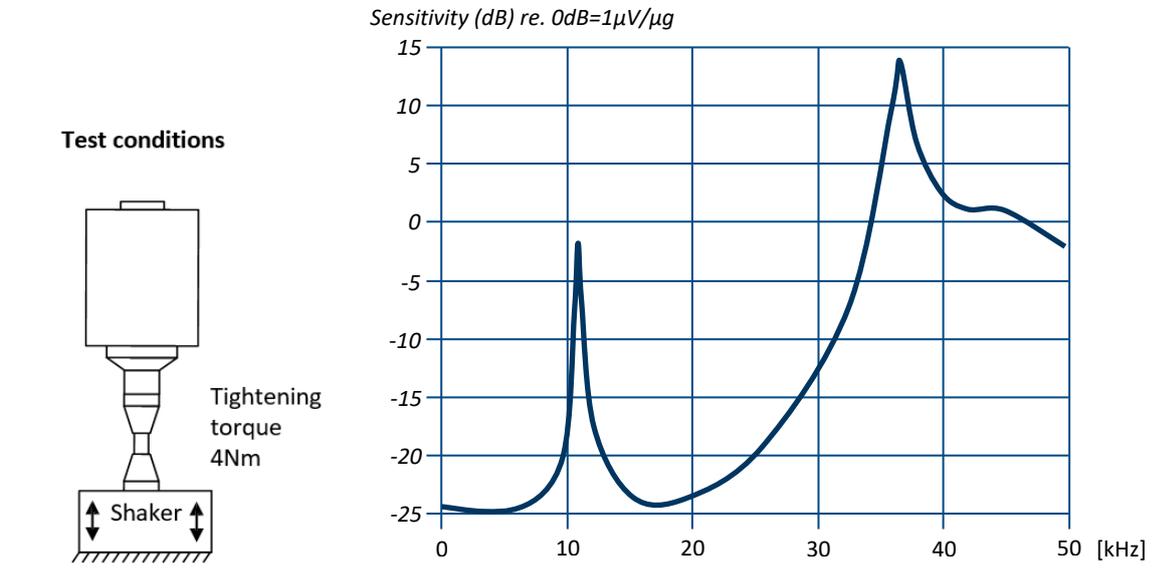
General		
Function		Ultrasound contact sensor
Operable with		SDT LUBExpert, SDT270 (+LUBExpert keys) SDT LUBChecker
Model recognition		FU.SEN.LUBE.00x
Certifications		ROHS, EMC (see DoC)
Center frequency (at 20°C)	kHz	37.0 ± 0.5
Thermal deviation of the center frequency	Hz/°C	-10
Measurement bandwidth	kHz	[36.1-40.7]
RMS sensitivity	dB, V/g	6.4 dB ±2 dB, ref: 0 dB=1V/g
Built-in gain	dB	+30
Environmental		
Operating temperature range	°C (°F)	-10 to 40 (14 to 104)
IP rating (guarantees with the provided cables)		50 (FU.SEN.LUBE.001) 65 (FU.SEN.LUBE.002)
Mechanical		
Housing material		303 Stainless steel and Aluminum (front plate)
Holster material		Nitrile Butadiene Rubber
Dimensions	mm (in)	Ø32 (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 (lbf.in)	4 (35.4)

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



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Available Accessories:

FUCABLSPLE7LE7	Spiral cable with 2 male 7-pole LEMO connectors
FUSEACMAG-01	Flat Magnetic Foot
FUSEACMAG-02	Curved Magnetic Foot
FUSEACMP1	Mounting pad
FUSEACLUBE-03	Lube Adapter

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 sensor 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.

2	CMA 27/01/2021	New layout + additional info	CGR
1	JPE 2017/05/15	Original version	CGR
Ver.	Editor	Nature of modification	Verified

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