

LUBESense1 Datasheet (both IP versions)

Description:

LUBESense1 sensors are advanced ultrasound-sensitive contact probes designed for handheld use with compatible SDT instruments for lubrication assistance. The core component is a piezoelectric ceramic transducer, which is adhered to a mechanical resonant structure. Thanks to its embedded conditioning electronics, this configuration allows the sensor to effectively detect and convert ultrasound vibrations into measurable electrical signals. The sensor interface is a 7-pin female LEMO connector mounted in an aluminum cover, offering two IP ratings. The sensor is mounted on an asset using provided accessories

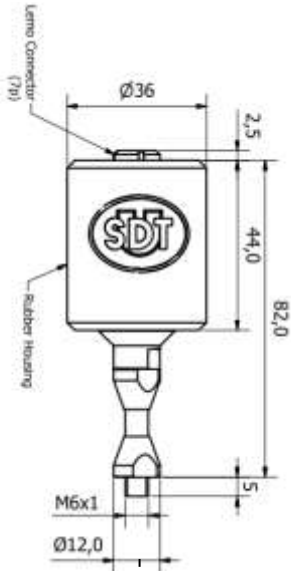
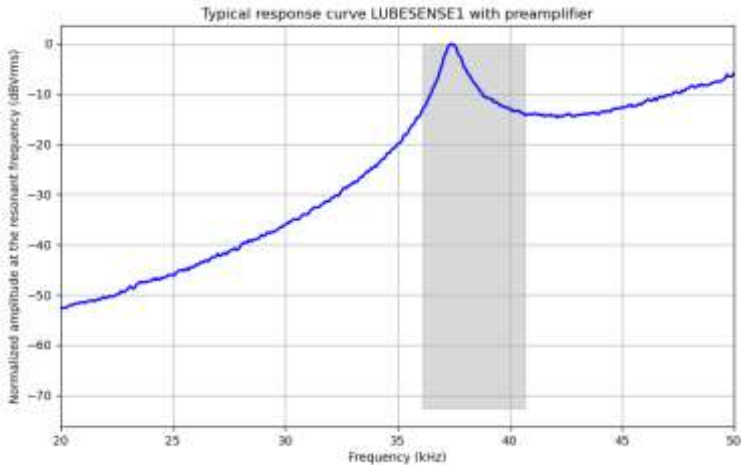
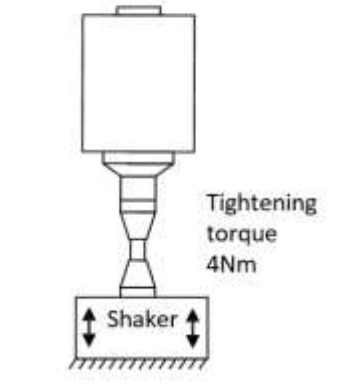


Specifications:

General		
Function		Ultrasound contact sensor
Type		Threaded
Operable with		SDT LUBExpert, SDT270 (+LUBExpert keys) SDT LUBChecker
Model recognition		FU.SEN.LUBE.00X
Serial number		540/553 YY XXXX
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)	-15 to +60 (5 to 140), non-condensing
IP rating (guaranteed with the compatible 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)
Mass	g (oz)	126 (4.44)
Connector		LEMO 7 female
Thread type		M6 x 1 (length: 5 mm)
Recommended mounting torque	N.m (lbf.in)	4 (35.4)

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

Test conditions



LUBESense1
FU.SEN.LUBE.00x



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

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:

- Risk of injury when working in electrical environment.
- Adhere to all safety rules and regulations in your facility.
- Always wear proper protective clothing and use insulated tools when around electrical hazards.
- Do not expose the equipment to rough handling or heavy impacts.
- Always read and follow the user manual.
- Opening the sensor housing may lead to incorrect measurements and void the warranty.
- The equipment should not be used in areas where there is a risk of explosion.
- Do not expose the equipment to high humidity or direct contact with water.
- All repairs must be performed by either SDT or an authorized service provider.

3	CMA 03/07/2024	Operating T° range + sensitivity curve	CGR
2	CMA 27/01/2021	New layout + additional info	CGR
1	JPE 2017/05/15	Original version	CGR
Ver.	Editor	Nature of modification	Verified

*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.*