SDT Ultrasound

CONMONSense Range

4-20mA & 0-10V Heterodyne Sensors

CONMONSense range includes standalone sensors with both 4-20mA and 0-10V output, per each output, 3 sensors are available: Contact or structure, Airborne open, Airborne enclosed

CONMONSense Range is a Standalone, Permanent Mount, Ultrasound Sensor designed to integrate with standard industrial measurement systems. CONMONSense delivers precise, repeatable data about the health of your assets and electrical systems also in the most challenging environment.

Its resonant piezo element is optimized for ultrasound driven lubrication, mechanical fault detection, and monitoring the health of valves, steam, hydraulic systems and electrical defects.

CONMONSense sensors can be used in multiple applications:

- Contact/structure (IP65) for bearings lubrication, valves, steam traps, hydraulics systems and rotating assets inspections, even the slowest ones.
- Airborne open (IP40) and enclosed (IP65) for inspection of electrical systems.

Ultrasound is a true measure of the FITness of your facility. Most assets produce FRICTION, IMPACTING, and TURBULENCE as defect indicators. CONMONSense hears these phenomena at their inception and delivers an analog signal response to your connected measurement system.

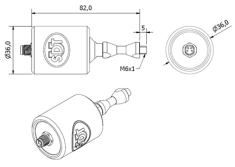
With an output range from 4-20mA or from 0-10V, CONMONSense mounts permanently to any asset to provide continuous condition monitoring data.

Avoid unplanned downtime and put the safety of your plant and colleagues first.

SPECIFICATIONS

4-20mA Contact Sensor IP65 / 0-10V Contact Sensor IP65:

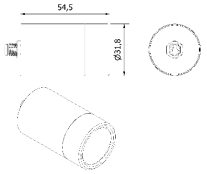
- Static (RMS value) or dynamic (heterodyned signal) output
- Onboard amplification stages
- Built-in analog filters
- Hardware calibration
- On board ambient T° measurement (through serial communication)
- Non-volatile memory (used to save configuration and recover sensor state/mode upon power outage)
- Unique ID
- Digital I/O communication for simple use
- Serial communication for advanced use



Technical data:			
Weight	126 g / 4.44 oz	Gain range	0 [dB] to 60 [dB]
IP rating	65	Gain step	12 [dB]
Power supply	10 [V] to 30 [V]	Connector size	M8 - 4 pin
Operating t°	-20 [°C] to +85 [°C] / -4 [°F] to +185 [°F]	Heterodyne frequency	38.5 [kHz] +/- 1 [kHz]
Pinout voltage	GROUND to VDD	Bandwidth	[0.25 – 4] [kHz], image of the ultrasonic signal
Resonant frequency	37 [kHz] +/- 1 [kHz]	RMS time period	1 [s] (static mode only)

4-20mA Airborne Sensor IP65 / 0-10V Airborne Sensor IP65:

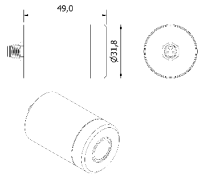
- Static (RMS value) or dynamic (heterodyned signal) output
- Onboard amplification stages
- Built-in analog filters
- Hardware calibration
- On board ambient T° measurement (through serial communication)
- Non-volatile memory (used to save configuration and recover sensor state/mode upon power outage)
- Unique ID
- Digital I/O communication for simple use
- Serial communication for advanced use



Technical data:			
Weight	102 g / 3.6 oz	Gain range	0 [dB] to 60 [dB]
IP rating	65	Gain step	12 [dB]
Power supply	10 [V] to 30 [V]	Connector size	M8 - 4 pin
Operating t°	-20 [°C] to +70 [°C] / -4 [°F] to +158 [°F]	Heterodyne frequency	38.5 [kHz] +/- 1 [kHz]
Pinout voltage	GROUND to VDD	Bandwidth	[0.25 – 4] [kHz], image of the ultrasonic signal
Resonant frequency	40 [kHz] +/- 1 [kHz]	RMS time period	1 [s] (static mode only)

4-20mA Airborne Open Sensor IP40 / 0-10V Airborne Open Sensor IP40:

- Static (RMS value) or dynamic (heterodyned signal) output
- Onboard amplification stages
- Built-in analog filters
- Hardware calibration
- On board ambient T° measurement (through serial communication)
- Non-volatile memory (used to save configuration and recover sensor state/mode upon power outage)
- Unique ID
- Digital I/O communication for simple use
- Serial communication for advanced use



Technical data:			
Weight	135 g / 4.8 oz	Gain range	0 [dB] to 60 [dB]
IP rating	40	Gain step	12 [dB]
Power supply	10 [V] to 30 [V]	Connector size	M8 - 4 pin
Operating t°	-20 [°C] to +70 [°C] / -4 [°F] to +158 [°F]	Heterodyne frequency	38.5 [kHz] +/- 1 [kHz]
Pinout voltage	GROUND to VDD	Bandwidth	[0.25 – 4] [kHz], image of the ultrasonic signal
Resonant frequency	40 [kHz] +/- 1 [kHz]	RMS time period	1 [s] (static mode only)

Accessories offered by SDT:	
Cables with Straight M8 Connector – PUR RAL7021 -25°C.+90°C IP65 – Straight shielded	
FU.RSC.CABL.01.015-1	Sensor-/actor cable m8 4pf <> free end 1.5m/4.9ft
FU.RSC.CABL.01.030-1	Sensor-/actor cable m8 4pf <> free end 3.0m/9.8ft
FU.RSC.CABL.01.050-1	Sensor-/actor cable m8 4pf <> free end 5.0m/16.4ft
FU.RSC.CABL.01.100-1	Sensor-/actor cable m8 4pf <> free end 10.0m/32.8ft
FU.RSC.CABL.01.200-1	Sensor-/actor cable m8 4pf <> free end 20.0m/65.62ft
Cables with 90° M8 Connector – PUR RAL7021 -25°C.+90°C IP65 – Shielded	
FU.RSC.CABL.02.015-1	Sensor-/actor cable m8 4pf 90° <> free end 1.5m/4.9ft
FU.RSC.CABL.02.030-1	Sensor-/actor cable m8 4pf 90° <> free end 3.0m/9.8ft
FU.RSC.CABL.02.050-1	Sensor-/actor cable m8 4pf 90° <> free end 5.0m/16.4ft
FU.RSC.CABL.02.100-1	Sensor-/actor cable m8 4pf 90° <> free end 10.0m/32.8ft
FU.RSC.CABL.02.200-1	Sensor-/actor cable m8 4pf 90° <> free end 20.0m/65.62ft

OUR MISSION:

SDT provides ultrasound solutions that help our customers gain a better understanding about the health of their assets. We help them predict failures, control tightness, optimize energy costs, and improve product quality while contributing to the overall reliability of their organization.

SDT Ultrasound

SDT International s.a./n.v.
Bd de l'Humanité, 415
B-1190 Brussels (Belgium)
Tel: +32(0)2-332 32 25
Email: info@sdtultrasound.com

SDT North America
7677 County Road 2
Cobourg ON K9A 0X4 (Canada)
Phone: 1-800-667-5325 / 1-905-377-1313
Email: hearmore@sdtultrasound.com

The CONMONSense sensor is part of the SDT products range that combines robustness and high performance. It is available through our worldwide authorized distributors network.