

SDT ULTRAChecker : Datasheet

Description:

SDT ULTRAChecker is an ultrasound solution designed to use the full range of both airborne and structure-borne 2nd generation ultrasound sensors with built-in preamplifier.



Specifications:

General		
Function		Ultrasound measurement device
Operable with		FlexID2, LUBESense1, RS2T, RS2N, AIRSense, ULTRASense, ParaDish2 (since v3.1.508)
Measurement interface		1 channel via a 7 pole LEMO connector
Maximum cable length	m (ft)	Up to 30 (98) (since v 3.1.535)
Sensitivity		Class I exceeding ASTM 1002-11 requirements for gas leak detection with the appropriate sensor.
Display		160x128 pixels Color OLED
Keyboard		5 function keys
Measuring range	dB μ V	-6 to 99.9 (reference 0 dB = 1 μ V)
Resolution	digits	0.1
Measurement bandwidth	kHz	35 to 42
Signal amplification	dB	+30 to +102 by step of 6 dB
RMS period time		250 ms (main screen) / 3 sec (bar graph)
Sampling frequency	kHz/ksps	64
ADC Resolution	bits	12
Firmware update		Via SDT Updater https://sdtultrasound.com/support/software/
Environmental		
Operating temperature range	°C (°F)	-10 to +50 (14 to 122) non-condensing
IP rating		IP42
Compliance		EMC compliant (directive 2014/30/EU) ROHS compliant (directive 2011/65/EU)
Standards		EN 61326-1:2013, EN 55011:2016 + A1:2017, EN 61000-4-2:2009, EN 61000-4-3:2006 + A1:2008 + IS1:2009 +A2:2010
Mechanical		
Housing material		ABS

Dimensions Housing	mm (in)	158x59x38.5 (6.22x2.32x1.51)
Weight	g (oz)	164 (5.78)
Battery/Utility connector		USB Mini-B 5-pin
Power		
Battery		2 AA batteries, rechargeable or non-rechargeable
Autonomy		7 hours
Audio		
Operable with		SDT provided headset only
Headset		25 dB NRR Peltor quality headphones
Warranty		
Lifetime warranty		Visit www.sdtultrasound.com for details

Kit content:

Reference	Designation FS.ULC.002-01
FU.ULC.001-01	ULTRAChecker w/o Batteries (S/N 557 YYY XXXX)
FU.ULC.UGD.001-01	ULTRAChecker – User’s guide w/ datasheet
SIBAT1,5VALK-AA (x2)	BATTERY Alkaline 1,5V AA (Maxell-Panasonic-Duracel-Sanyo)
FU.SEN.UTS.001-01	ULTRASense US sensor (S/N 006 YY NNNN)
FU.SEN.RS2T.001-01	RS2T THREADED sensor w/o cable (black cover, S/N 532 YY XXXX)
FUCABLSPLE7LE7-10	CABLE SPIRAL – LEMO7P<>LEMO7P L=6/18dm Black/Black
SA.CP2.MMF.002-B	NEEDLE Assembly 133 mm CP2
FUSEACMAG-02	Curved magnetic foot D30*23
FUHDPH-21	HT52B-112 3M PELTOR CH-3 FLEX2 Listen only headphones w/ neckband
SICABUSBAUSBMM	SB2412 USB2.0 Cable usb type A<>USB type B5 mini,1.8m-black
FUTOOLSCRDRIV	IT3874 Screwdriver set w/ 6 bits - grey w/ led - no print
FU.ULC.CBOX.001-01	T6 Evolution plastic case blue/grey locks - ULTRAChecker (w/logo SDT+foam)

Accessories:

Reference	Designation
FU.SEN.LUBE.001-01	LUBESens1 w/o cable (Blue cover – S/N 540 YY XXXX)
FU.SEN.RS2N.001-01	RS2NL100 NEEDLE CONTACT PROBE W/O CABLE (NL=82mm - BLACK COVER - S/N 535 YY XXXX)
FU.SEN.RS2N.002-01	RS2NL300 NEEDLE CONTACT PROBE W/O CABLE (NL=275mm - BLACK COVER - S/N 535 YY XXXX)
FU.SEN.RS2N.003-01	RS2NL500 NEEDLE CONTACT PROBE W/O CABLE (NL=470mm - BLACK COVER - S/N 535 YY XXXX)
FU.SEN.AIR.001-01	AIRSense – Airborne US Sensor (S/N 007 YY NNNN)
FU.PAR2.005-01	PARABOLIC SENSOR - PARADISH2 (LASER CLASS 2, <1mW) (S/N 524 YY XXXX)
FU.FLX2.001-01	FlexID2 - W/ AMPLI (NEW PCB) - GOOSENECK 400mm W/O SENSOR (S/N 002 YY NNNN)
	FA.FLX2.R16.001-01 : REMOVABLE SENSOR 16mm FOR FLX2 (PLASTIC HOUSING) S/N DYYNNNN
	FA.FLX2.R10.001-01 : REMOVABLE SENSOR 10mm FOR FLX2 (PLASTIC HOUSING) S/N CYYNNNN

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

Safety recommendations:

- Read and follow the user manual.
- Do not expose the equipment to rough handling or heavy impacts.
- Do not disassemble the instrument.
- Do not use the equipment in areas where its use is prohibited (ex: Ex Zones).
- Do not expose the equipment to high humidity or direct contact with water.
- All repairs and calibrations must be performed by SDT or authorized services.
- Using any other headset or any sensor than the ones supplied with the instrument can cause internal damage to the equipment.
- Permanent hearing loss may occur if you use your headset at a high volume. Set the volume to a safe level.

5	CMA 2022/02/25	Compatibility with Paradish2 (firmware >=3.1.508)	CGI
4	CMA 2021/03/01	Safety recommendations, max cable length	RGO
3	CGR 2021/01/04	Corrections, new info	CMA
2	CMA 2020/12/15	Added sensor compatibility	CGR
1	CMA 2020/06/25	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.