

FLUKE®

ii900/ii910

Acoustic Imager

Product Specifications

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Specifications

Acoustic Sensing and Imaging

Number of Microphones.....	64 digital MEMS
Frequency Range	
ii900	2 kHz to 52 kHz
ii910	2 kHz to 100 kHz
Operation Distance	
ii900	0.5 m to 70 m
ii910	0.5 m to 120 m
Field-of-View (FOV)	63 ° ±5 °
Nominal Frame Rate	25 FPS

Visual Camera

Resolution on Screen	
ii900	640 x 480
ii910	2608 x 1952
Field of View (FOV).....	63 ° ±5 °
Focus	Fixed lens
Image Mode	Color and Grayscale

Display

Display	7" LCD with backlight, under-sunlight readable
Resolution	1280 x 800
Touchscreen	Capacitive
Acoustic Image	Yes, SoundMap™ image overlaps with visual image

Image Storage

Memory/Storage Capacity	20 GB
Image Format.....	Blended Visual and SoundMap™ image .JPEG or .PNG (JPEG by default)
Video Format	Blended Visual and SoundMap™ image .MP4
Save Video.....	up to 5 minutes

Acoustic Measurement and Analysis

Sound Pressure Range (typical)	
ii900	15.4 dB SPL to 115.2 dB SPL ±1 dB SPL 2 kHz 5.6 dB SPL to 102.5 dB SPL ±2 dB SPL 19 kHz 28.4 dB SPL to 131.1 dB SPL ±1 dB SPL 35 kHz 41.8 dB SPL to 133.1 dB SPL ±3 dB SPL 52 kHz
ii910	12.1 dB SPL to 114.6 dB SPL ±1 dB SPL 2 kHz 4.4 dB SPL to 101.2 dB SPL ±2 dB SPL 19 kHz 12.8 dB SPL to 119.2 dB SPL ±1 dB SPL 35 kHz 19.8 dB SPL to 116.1 dB SPL ±3 dB SPL 52 kHz 41.4 dB SPL to 129.0 dB SPL ±1 dB SPL 80 kHz 54.4 dB SPL to 135.5 dB SPL ±1 dB SPL 100 kHz
Minimal Acoustic Imaging Sensitivity @ 1 m	
ii900	9 dB SPL 2 kHz 3 dB SPL 19 kHz 23 dB SPL 35 kHz 37 dB SPL 52 kHz
ii910	3 dB SPL 2 kHz 2 dB SPL 19 kHz 6 dB SPL 35 kHz 17 dB SPL 52 kHz 36 dB SPL 80 kHz 51 dB SPL 100 kHz
Auto Max/Min dB Gain	Auto or manual. User selectable.
Frequency-Band Selection.....	User selectable

Capture Analysis Modes

LeakQ™ Mode.....	Capture and analyze leak data to determine type of leak (quick-disconnect, threaded coupling, hose, open end) and estimate the size of the leak.
PDQ Mode™ (ii910 only).....	Capture and store partial discharge data to estimate the type of partial discharge (corona, surface/tracking, arcing, and void). The data includes information for later use to create pulse phase diagrams.
User Profiles	User configurable profiles to save custom settings
Source-Visualization Mode	User-selectable between single-source or multiple-source detection
SoundMap™ Image Palettes	Blue-Red, Grayscale, Ironbow

Communication Interface and Buttons

USB.....	USB-C used to transfer data to PC, download files using standard USB Mass Storage device driver.
Buttons.....	Power on/off, image/video capture

Self-Diagnostic

Type	Array-health Self-diagnostic warning to identify when too many microphones are faulty.
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Mechanical

Size without Handstrap (H x W x L)	186 mm x 322 mm x 68 mm
Weight.....	2.15 kg
Ingress Protection	IP40

Power Supply

Battery Type.....	Rechargeable Li-ion
Certifications	CB report to IEC62133, and UN38.3 Certification
Battery Life.....	>6 hours (Product includes spare battery)
Charging Method	External-bay charger, ESBC290-1
Charging Hours.....	3 hours
Charge Operating Temperature.....	0 °C to 45 °C

Environmental

Temperature

Operating

ii900	-10 °C to 45 °C
ii910	-10 °C to 40 °C

Storage without battery -20 °C to 70 °C

Storage with battery -20 °C to 60 °C

Battery charging..... 0 °C to 45 °C

Altitude

Operating 2000 m

Storage 12 000 m

Humidity 10 % to 95 % non-condensing

Safety

General Safety IEC 61010-1

Electromagnetic Compatibility (EMC)

International IEC 61326-1: Portable
Electromagnetic Environment IEC 61326-2-2
CISPR 11: Group 1, Class A

Group 1: Equipment has intentionally generated and/or uses conductively-coupled radio frequency energy that is necessary for the internal function of the equipment itself.

Class A: Equipment is suitable for use in all establishments other than domestic and those directly connected to a low voltage power supply network that supplies buildings used for domestic purposes. There may be potential difficulties in ensuring electromagnetic compatibility in other environments due to conducted and radiated disturbances.

Caution: This equipment is not intended for use in residential environments and may not provide adequate protection to radio reception in such environments.

Emissions that exceed the levels required by CISPR 11 can occur when the equipment is connected to a test object.

Korea (KCC) Class A Equipment (Industrial Broadcasting & Communication Equipment)

Class A: Equipment meets requirements for industrial electromagnetic wave equipment and the seller or user should take notice of it. This equipment is intended for use in business environments and not to be used in homes.

USA (FCC) 47 CFR 15 subpart B. This product is considered an exempt device per clause 15.103.