RYOSHO

RYODEN SHONAN ELECTRONICS CORPORATION

Digital Ultrasonic Test Instrument

UI-29

(Ultrasonic Flaw Detector)

Automatic, manual, custom, for a variety of needs.

Be flexible

UI-29

Creating New Value in Testing

Integrates the functions required for a portable flaw detector.

★ Flaw detection, special APP. etc. suitable for multi-use. .

★ Hi sensitivity flaw detection with 12 type of frequency band filters.

★ Direct keys and a touch panel are installed for better operability.

★ Achieving faster digital processing

Direct key operation

T-COND can be selected and values can be entered directly from the operation panel.

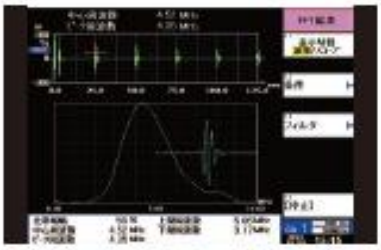
Touch panel compatible

Touch panel compatible and can be operated from the LCD screen

Save to SD memory card

Up to 1,950 conditions can be saved, including T-COND and waveform images

Equipped with FFT as standard



Measures the test frequency of flaw detectors and newly equipped with continuous calculation function

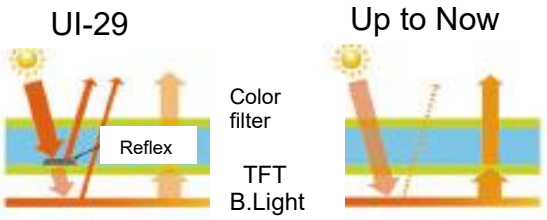
Can accommodate two batteries

Equipped with powerful lithium-ion batteries, two batteries provide approximately 12 hours of

Demonstrating strength in a variety of environments

Highly visible screen even outdoors

Tempered glass LCD for a wide viewing angle and improved scratch resistance



IP66 & tough body

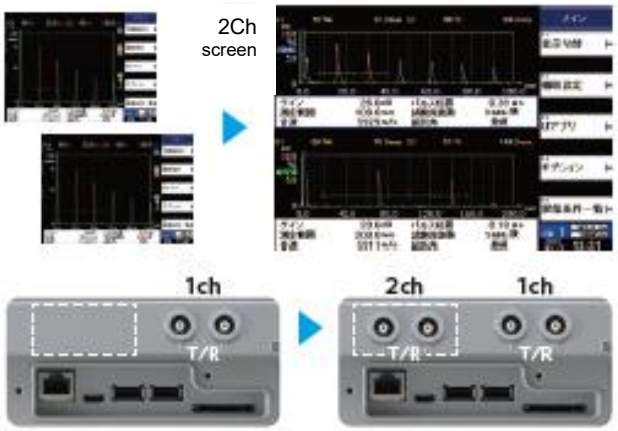
IP66 Dust proof and Water proof Design

Hardware Options

2CH Function

Synchronous 2Ch simultaneous flaw detection is possible

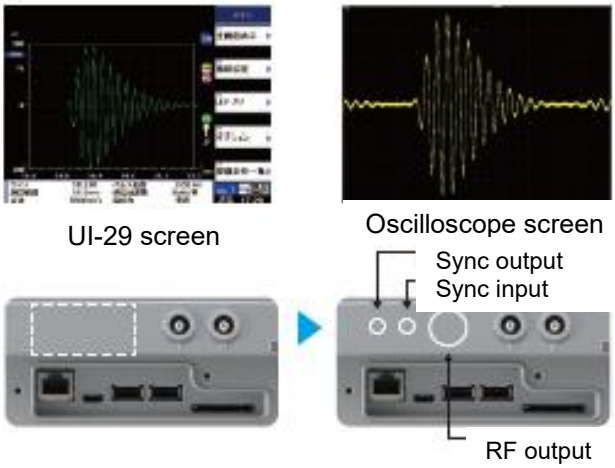
Simultaneous excitation is possible by adding a T/R board to the UI-29 and installing dedicated S/W.



RF out Function

Waveform display and analysis on the oscilloscope is possible

The received signal can be output to an oscilloscope and the data



Extensions

It can be used for applications such as interfacing with external devices, linking with mechanical devices, visualizing alarms, and recording all waveform data.

Connecting and linking the UI-29 with external devices

Imaging
Detection and imaging of peeling of welded parts, foreign objects in materials, pinholes, cracks, etc. Possible.

Linked control with Nut runner
Real-time axial force monitoring and linked control are Possible when combined with a nut runner.

Alarm/Chart Output
Alarms can be displayed using the alarm output function.
Analog signals can also be output to a pen recorder.
Possible.

I/F specification

PI : 4ch / PO : 4ch
Analog Output : 4ch
Encoder : 2 axis, 2 phase
Sync. Output : 1ch
Sync. Input : 1ch
Connection requires a dedicated terminal block,

Dedicated cable and terminal block

Digital Ultrasonic Test Instrument UI-29

Common	
External dimensions [mm]	270 [W] X 167 [H] X 103 [D]
Weight	Approx 3.6 [Kg] Incl. 1 battery
AC adapter	AC 100 [V] - 240 [V]
Battery	Lithium-ion battery (Weight appox. 540 [g])
Battery operating time	Approx. 6 [hr] / 1 battery (Depends on the conditions) Max. 2 batteries
Operating temperature	0°C - 40°C (Operation + Non-direct sunlight)
Protection class	IP66

Display	
Screen size	7-inch wide , TFT color liquid crystal, Touch panel
Display area [mm]	152 (W) X 91 (H)
Pixels	800 (H) X 480 (V)
A scan pixels	424 (H) X 316 (V) Max 530(H) X 421(V)

Time-base section	
Test range	1 to 14,556 mm in sound velocity 5900 m/s
Display time-base linearity	±1% Max
Adjustable pulse position	- Full scale to 3,000 µs ±5%
Adjustable delay	- Full scale to 3,000 µs ±5%

Interface	
Probe connector	LEMO 1S
USB	Type - A (USB2.0) X 2 , Type - C (USB3.0) ※ Alternate mode available. PD not supported.
Card slot	SD memory card (Attached 32GB SD)
LAN	RJ45 1000Base-T
External (Option)	Analog / Digital / Encoder

Transmitter section	
Transmition wave form	Square wave pulse
Pulse rise up time	Less than 10 [ns]
P.R.F.	1 to 5000 [Hz] (Link with test range)
Transmition voltage	Low / Medium / High
Output impedance	50Ω or less

Receiver section	
Gain regulator	Max. 110 [dB] (in step of 0.1dB)
Sensitivity	80 [dB] or better (at 5 [MHz] narrow band)
Receiving center frequency	0.25/ 0.5/ 1/ 2/ 3/ 4/ 5/ 10/ 15/ 25 [MHz] Super wide band
Input Impedance	50 / 300 [Ω] ±15 [%]
Amplifier linearity	±3% Max

Gate section	
Number of gate	4 Gates / channel
Measurement methods	Peak / Up / Zero crossing / First echo
Gate start point [mm]	- 99999.9 to 99999.9 on screen
Gate length [mm]	- 99999.9 to 99999.9 on screen

Expansion Options	Digital Output Function	Analog output ext. sync. Function	RF output Function	2-channel Function
Software Options	DGS Function	Gate Tracking Function		E-DAC Function
	D-DAC Function	ABC Function	⑨ Dedicated PC software	Other customize etc.
Accessory Parts	⑩ AC adapter	⑪ Protector (for Front or Side)		⑫ Carrying case
	⑬ Hand strap			⑭ Dust cap

Standard accessories

①UI-29
②Battery
③AC adapter
⑤SD card
⑥Warranty
⑦Instruction Manual
⑧Inspection Report

Optional parts

⑨Dedicated PC software
⑩External charger
⑪Protector
⑫Carrying case
⑬Hand strap
⑭Dust cap

Inquiries / Manufacturer

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If you have any queries, please contact our Ultrasonic Instrument Sales Department.

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