



# Online4US<sub>QC</sub>

## QUALITY CONTROL IN PRODUCTION The Ultrasonic Leak Test



- Flexible and modular
- Autonomous operation
- Automatic decision making for good/bad parts
- User-friendly and simple operation
- Up to 32 measuring channels

# SDT Online4US QC

## Nothing escapes it

**It allows you to optimize your production by reducing downtime and by improving the quality of the manufactured product.**

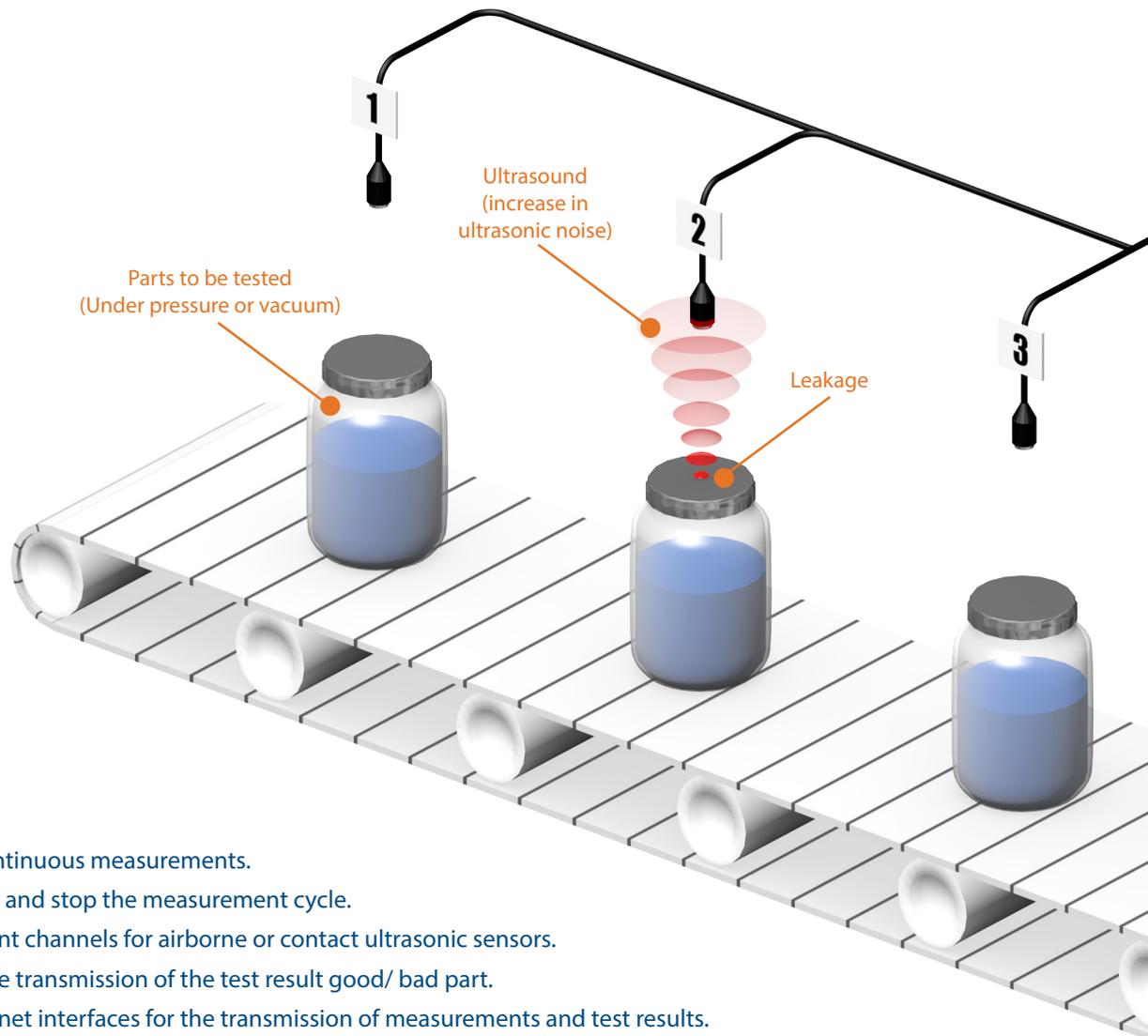
Based on 40 years of experience, Online4US QC (Quality Control) is a modular platform for ultrasonic leak testing of manufactured products such as valves, catheters, bags, bottles, packaging, aerosols, syringes, tanks, etc.

All-in-one, smart and easy to use, Online4US works autonomously.

The validation of the leakage or disposal of the tested parts is done automatically and independently of the operator.

During the test cycle, Online4US continuously measures the sound environment around each tested part. At the end of the test cycle, a "good part" or "bad part" alarm is triggered for each measurement channel.

By combining air and contact sensors, Online4US is versatile, covering a wide range of applications and test pressures.



## Features

- Synchronous and continuous measurements.
- Digital inputs to start and stop the measurement cycle.
- Up to 32 measurement channels for airborne or contact ultrasonic sensors.
- Digital outputs for the transmission of the test result good/ bad part.
- RS232/485 and Ethernet interfaces for the transmission of measurements and test results.
- 5" color touch screen for displaying measurements and settings.
- Painted metal or stainless-steel enclosure with glass door for harsh environment.
- Cable gland designed for quick and easy installation, without tools or cable cutting.

# Online4US<sub>QC</sub>

# For those who require more than just a gain in production rate

## REDUCED MAINTENANCE COSTS

The ultrasonic control allows the use of an electro-pneumatic system reduced to its simplest expression. It consists only of a pressurizing and a draining solenoid valve: there is no need for a balancing or measuring valve.

Since the solenoid valves do not have to be perfectly sealed, a conventional, inexpensive solenoid valve is sufficient. This simplifies the use of Online4US. Maintenance costs are also reduced.

## INTEGRATION AND MODULARITY

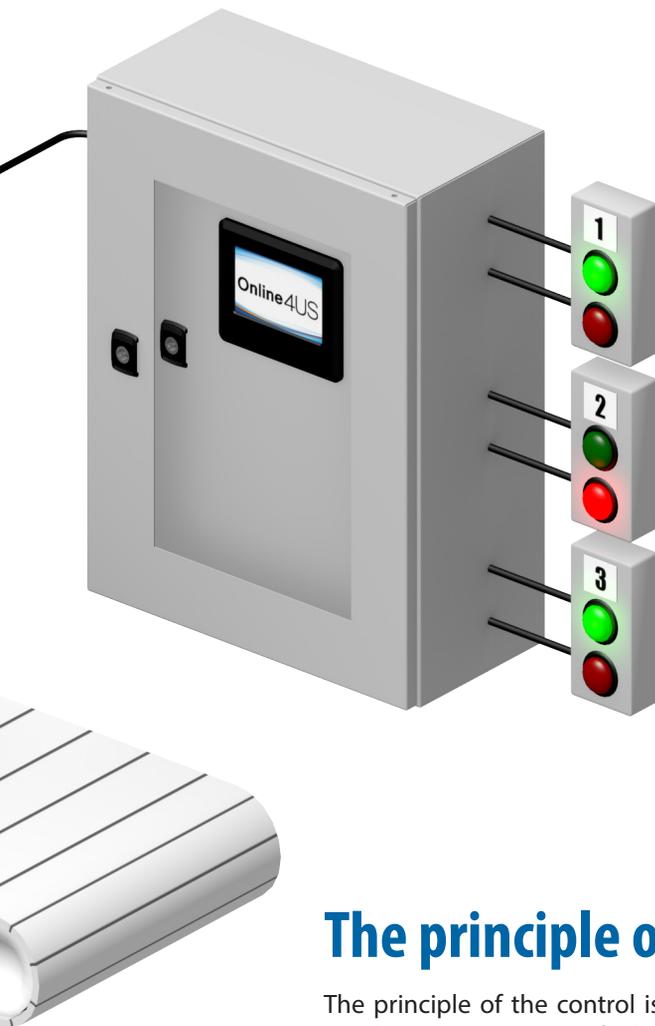
Online4US has digital inputs and outputs, an Ethernet, RS232 and RS485 interface. This makes it easy to integrate directly into the production line, on a semi-automatic or manual control station.

Online4US-QC is configurable and scalable on demand. It is designed to be easily expandable by yourself at any time. You can add up to 32 measurement channels, inputs, outputs or external communication possibilities.

## AND ALL IN ONE

Online4US is attractively priced, but without compromises: essential data can be viewed at a glance on a large color screen; no additional software or devices are required to view the measurements obtained during a test cycle or to adjust parameters.

The sensors and the enclosure are IP65 rated. This makes Online4US a robust solution for the most demanding working conditions.



## FASTER

The stabilization time is eliminated because the ultrasonic technique is insensitive to the effect of temperature on pressure.

## MORE VERSATILE

The ultrasonic technique controls even large volume parts, without loss of sensitivity or increase in cycle time.

## MORE CONVIVIAL

Programming and management are intuitive thanks to a large 5-inch color touch screen.

## MORE EFFICIENT

Detection is immediate after the pressure is applied. A few milliseconds are enough. The test rate is increased.

## MORE COMPLETE, THEREFORE MORE ECONOMICAL

Up to 32 measurement channels, digital inputs and outputs, Ethernet, RS232 and RS485 interfaces.

## The principle of ultrasonic leak testing

The principle of the control is acoustic. It is based on the measurement of ultrasonic noise around the tested part after it has been pressurized or depressurized. When the part is tight, the measurement corresponds to the background noise of the installation and determines the rejection threshold. In case of a leak, the air escaping from the leakage port causes an increase of the ultrasonic noise.

The measurement then exceeds the rejection threshold, and the part is discarded. The acoustic measurement is typically performed in a narrow frequency band around 40 kHz. As the measurement is above 20 kHz, the limit of perception of the human ear, it is called ultrasonic.

# SDT Online4US Technical Specifications

<b>CPU module</b>	Internal SD card memory. 1 Ethernet socket, max. baud rate 10 Mbps, 1*RS232 and 1*RS485 socket, max. baud rate 38.4 kbps, 1 type A USB 2.0 Host socket. Monitoring: synchronous continuous, trig- gered or periodic. Acquisition time: adjustable from 1 to 99 seconds. Customizable alarm and alarm delay per channel.
<b>Display</b>	5 inches colour touch screen. Resolution 800 x 480 pixels.
<b>Digital input module</b>	8 electrically insulated digital AON inputs. External power supply.
<b>Analog input module</b>	8 analog inputs. Measuring range 0 to 10 VDC. 8 bits resolution.
<b>Analog output module</b>	8 electrically insulated digital AON outputs per module. Max. 16 outputs on 2 modules. Breaking capacity 750 VA max. External power supply.
<b>Ultrasound sensor module</b>	Auto gain. Measuring range up to 90 dB. Measurement types: RMS, Max. sub-RMS, peak and crest factor. 2 channels per module, max. 32 channels over 16 modules (including vibration sensor modules). Transducer type: airborne and structure borne US sensor.

<b>Enclosure</b>	1 main enclosure with a glass door for up to 7 modules + CPU module + power supply module + termination module. 1 extension enclosure with a steel door for additional modules, up to 9 modules. Each enclosure dimensions are 500 x 400 x 210 mm. Painted steel or 304L stainless steel. IP 65 rating.
<b>Power supply</b>	24 VDC $\pm$ 2.5%, 2.5 A. Ripple and noise less than 50 mV peak-to-peak on 20 MHz band- width. Optional: 85 to 264 VAC – 50/60 Hz. 0.6 A for 115 VAC and 0.3 A for 230 VAC, low noise.
<b>Operating temperature</b>	0 °C to 50 °C (32 to 122 °F) max. 90% relative humidity, non-condensing.



## A new technological advance to optimize your production costs.

With its performance and flexibility, the SDT Online4US represents a new and better alternative to the leak detection solutions generally used on production lines.

It offers the best accuracy/reliability/cost ratio and in most applications the gain in production rate generates a reduction in the cost price of the tested part.

SDT's perfect mastery of the latest technological innovations and its recognized know-how in the industrial sector have enabled it to achieve this position. SDT designs and produces measuring instruments for leak detection, leak testing, quality control and predictive maintenance of production equipment.

The company's success is based on our commitment to providing effective solutions that meet our customers' needs while improving their profitability.



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