



# Krautkrämer USIP|xs CV ESSENTIAL

Multi-channel conventional ultrasonic instrument platform

- Industry-leading automation capabilities
- Scalable platform for utmost synergies
- Intuitive user interface for maximum ease of use

# USIP|xs CV is the all industrial purpose, multi-channel conventional ultrasonic instrument for integration into any automated and semi-automated inspection system.

The latest USIP|xs CV is a precision, multi-channel inspection platform that solves the growing need for easy, cost-effective integration and improved automation capabilities in inspection lines.

With a wide range of channel configurations available, the instrument is scalable in performance and associated pricing. As a result, it is well suited to the widest range of projects and applications.



Quality Assurance, NDT



Process Control



R&D and Labs

## Effective integration

Industry-leading automation and integration capabilities enable even the most complex systems to be built with less effort.

Multiple interface standards make USIP|xs CV one of the best equipped instruments for effective integration into automated systems. The integrated field bus connection allows for a single cable connection to any PLC and minimizes wiring when designing larger systems.

## Synergies of a scalable platform

As one of the largest platforms of conventional ultrasonic instruments, Krautkrämer USIP|xs CV offers UT performance and channel count that can be fully tailored to the individual customer requirements instead of a "one-size-fits-all" approach.

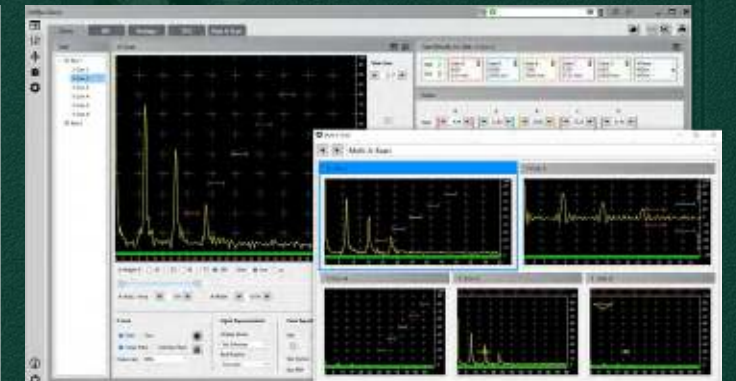
The platform concept creates synergies concerning technical infrastructure, instrument cost and integration know-how. This reduces the complexity of setting up and maintaining inspection systems as there will be an instrument from the platform as *the* perfect fit for any kind of system type and inspection need.

## Latest usability standards for ease of use

The product lives up to the latest usability standards and comes equipped with a vast array of integrated diagnostic features. The result: Successful projects without excessive staff training and learning efforts.

The integrated box design makes the instrument extremely easy to maintain in comparison to slot card type electronics due to fewer parts and interfaces.

- Graphical user interface compliant with the latest usability standards
- Up to 8 parallel A-Scans enable for optimized inspection control
- All digital filters and up to 4 amplifiers per channel enable for optimum setups under almost any inspection condition
- TCG function can be applied without limitations over the whole dynamic range



Graphical user interface

- Developed based on decades of experience as the leading manufacturer of ultrasonic testing systems
- Comprises of a vast array of diagnostic tools and remote diagnostics capabilities to save time and efforts during start up, installation and commissioning



Interface monitoring

- Option to create an individualized graphical user interface, extract data and maximize the customization of the system
- The USIP|xs software development kit includes an extensive library as well as quick-start sample programs



Software development kit

Technical data	
<b>USIP xs CV Essential</b>	
Channels	2, 4, 8, 12 channel instrument 16, 24, 36 channel multi-instrument system
Multiplexing	2, 4, 8 channel instrument: 2 parallel evaluation channels 12 channel instrument: 4 parallel evaluation channels
Transmitter voltage	25 – 200 V
Transmitter pulse width	30 – 1000 ns
Pulse repetition frequency	max. 20 kHz
Probe frequency	0.7 – 13 MHz (–3 dB)
Dynamic range	0 – 80 dB
Gain per channel	1x main + individual gains for up to 3x gates
TCG	1 curve per channel
Gates per channel	5, incl. 1x interface echo gate
Resolution of ToF	2.5 ns
Power input	24 VDC/130 W
Housing	19" rack mount or desk top Protective covering on request
Protection grade	IP 54
Temperature range	5 – 40 °C
Probe connectors	Lemo 1, BNC
Interfacing	Ethernet 1 Gbit/s Field bus 160 bit I/O D-Sub 78 Pin
HW-interface signals per instrument	144 gate event bits 8x analog out 64x TDR in 4x encoder in
UT instrument standard	EN ISO 22232-1

Commercial offering	
<b>USIP xs CV basic instrument packages</b>	
Single instrument	2, 4, 8 or 12 channel instrument, Lemo 1 Coax or BNC 1x LAN cable, 2 m 1x power supply cable 24 V, 2 m 1x set 19" rack mounting 1x USIP xs operator GUI for installation on a customer supplied PC/laptop Operating manual Safety instructions Manufacturer's certificate
Multi-instruments systems	16, 24 or 36 channel multi-instrument packages, Lemo 1 Coax or BNC 1x LAN cable 2 m per instrument 1x power supply cable 24 V, 2 m per instrument Optical data link cable instrument to instrument Electrical sync cable instrument to instrument 1x set 19" rack mounting per instrument 1x USIP xs operator GUI for installation on a customer supplied PC/laptop Operating manual Safety instructions Manufacturer's certificate
<b>Accessories for power supply</b>	
Desktop power supply unit	Universal, desk top style power supply unit 110/230 V-24 V, 50 Hz / 60 Hz
<b>Accessories for interfacing</b>	
Interface terminal 78 pin	78-pin terminal clamp incl. 2m cable for easy digital signal handover from the periphery to the instrument
Field bus gateway	Interbus – Profinet gateway for mounting rail installation incl. 2m cable for cost effective handover of large amounts of interface signals
Sync cable, 1 m	Needed in case an external sync pulse needs to be handed over to the instrument Configuration: 2x MI2
<b>Probes and probe cables</b>	
Visit our probes' homepage on <a href="http://www.bakerhughes.com">www.bakerhughes.com</a>	
<b>Instrument certification</b>	
EN ISO 22232-1 certificate	Certification of the instrument according to EN ISO 22232-1
<b>USIP xs app store</b>	
USIP xs SDK	USIP xs software development kit

To learn more about how we can make our platform work for your needs, reach out to our customer care team at [uttm.service@bakerhughes.com](mailto:uttm.service@bakerhughes.com).

Waygate Technologies, formerly GE Inspection Technologies, is a global leader in NDT solutions with more than 125 years of experience in ensuring quality, safety and productivity.

[waygate-tech.com](http://waygate-tech.com)

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