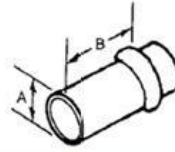




KEIYU NDT

## KEIYU – IMMERSION TRANSDUCERS

### Immersion Transducers



Element Ø	A	B
.250	.63	1.55
.375	.63	1.55
.500	.63	1.55
.750	1.0	1.77
1.00	1.25	1.82

An immersion transducer is a single element longitudinal wave transducer with a 1/4 wavelength layer acoustically matched to water. Immersion transducers are specifically designed to transmit ultrasound in applications where the test parts are partially or wholly immersed in water, which allows a uniform and fast coupling technique for rapid scanning of parts. Focusing lens can be added to increase transducer sensitivity and performance in a particular area of a part. Immersion transducers can be flat, focused either spherically or cylindrically upon request within the allowable focal range for a given frequency and element size.

#### Advantages:

- The immersion technique provides a means of uniform coupling
- Quarter wavelength matching layer increases sound energy output
- Corrosion resistant 303 stainless steel case with chrome-plated brass connectors
- Proprietary RF shielding for improved signal-to-noise characteristics in critical applications
- All immersion transducers, except paintbrush, can be focused spherically (spot) or cylindrically (line)
- Customer specified focal length concentrates the sound beam to increase sensitivity to small reflectors

**Q** MARQUES  
& CIA

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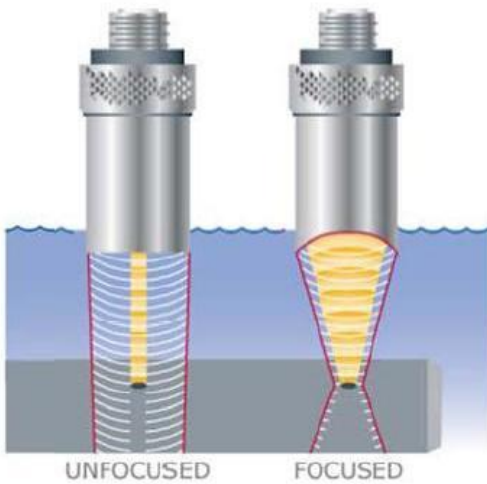


### Immersion Transducer Focal Lengths

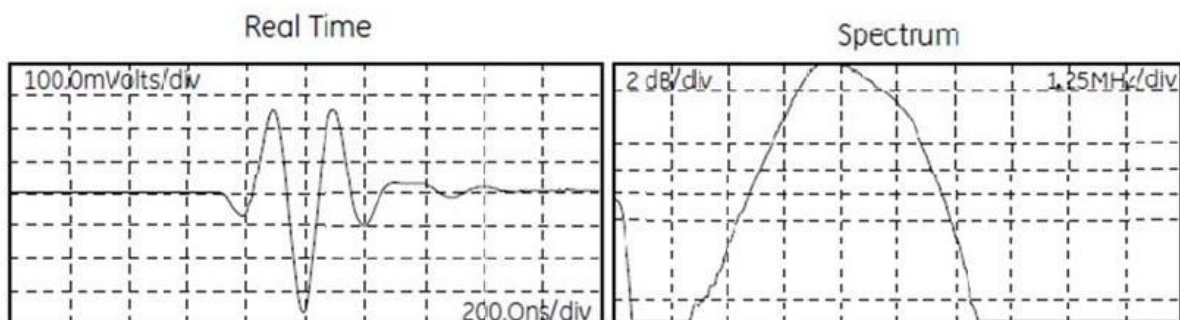
$$N = \frac{(\text{Dia.})^2 \times (\text{Freq.})}{4 \times \text{Velocity}}$$

Dia. = Crystal diameter  
 Freq. = Frequency of probe  
 Velocity = Velocity of material

Note: All Focus Probe need special made depending of the specification. Following only list our standard flat immersion probes



Real time waveform and frequency certification is included with every transducer at no charge



Keiyu P/N	Frequency MHz	Crystal Dia. mm
I-100-12	1	12
I-100-20	1	20
I-100-24	1	24
I-200-12	2	12
I-200-20	2	20
I-200-24	2	24
I-225-12	2,25	12
I-225-20	2,25	20
I-225-24	2,25	24
I-400-12	4	12
I-400-20	4	20
I-400-24	4	24
I-500-10	5	10
I-500-12	5	12
I-500-20	5	20
I-500-24	5	24
I-1000-6	10	6
I-1000-10	10	10
I-1500-6	15	6
I-1500-10	15	10



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