

# DAKOTA ULTRASONICS

## Thickness Gauge Transducers & Accessories - Price List

Date: 04/15/22

### Dual Transducer Reference Chart

Frequency & Diameter Disks
<p><b>Note:</b> The frequency and crystal diameter are stamped and sorted according to color, as illustrated above.</p>

Special Signatures															
<table border="1"> <thead> <tr> <th>Signature</th> <th>Definition</th> <th>Purpose</th> </tr> </thead> <tbody> <tr> <td>HR</td> <td>High Resolution</td> <td>Increased near surface resolution – thin materials (.025" steel).</td> </tr> <tr> <td>CT</td> <td>Coating Enabled</td> <td>Works in conjunction with CMX series coating feature.</td> </tr> <tr> <td>HD</td> <td>Highly Damped</td> <td>Increased resolution for through paint/coating measurement.</td> </tr> <tr> <td>CPZT</td> <td>Composite</td> <td>High output PZT damped crystal – additional gain/penetration</td> </tr> </tbody> </table>	Signature	Definition	Purpose	HR	High Resolution	Increased near surface resolution – thin materials (.025" steel).	CT	Coating Enabled	Works in conjunction with CMX series coating feature.	HD	Highly Damped	Increased resolution for through paint/coating measurement.	CPZT	Composite	High output PZT damped crystal – additional gain/penetration
Signature	Definition	Purpose													
HR	High Resolution	Increased near surface resolution – thin materials (.025" steel).													
CT	Coating Enabled	Works in conjunction with CMX series coating feature.													
HD	Highly Damped	Increased resolution for through paint/coating measurement.													
CPZT	Composite	High output PZT damped crystal – additional gain/penetration													

Connector Options (Dual Element)		
Potted (Integral)	Microdot	Lemo 00
<p><b>Note:</b> The Potted and Microdot versions can be either "Top" or "Side" entry configurations. The Lemo connectors are only available in 1/2" transducer configuration, due to space requirements.</p>		

Size Options (Dual Element)		
3/16" Version	1/4" Version	1/2" Version
<p><b>Note:</b> Customs sizes are available upon request. Old style stainless steel ring assemblies that do not extend flush to the face of the transducer are also available for custom builds on request.</p>		

## Dual Element (MX, MMX, ZX, MVX, CMX, UMX-2 Gauges Only)

<b>1.0 MHz Dual Element Transducers</b>					
Materials used: *Cast iron, * Plastics (polypropylene, polyethylene, etc.), *Fiberglass.					
Diameter	Part #	Comments	Connector	Entry	Price \$
1/2"	T-004-0000		Potted	Top	305.00
1/2"	T-104-0000		Potted	Side	305.00
1/2"	T-204-0001		Microdot	Top	380.00
1/2"	T-304-0001		Microdot	Side	380.00
1/2"	T-104-0600	Composite	Potted	Side	350.00
1/2"	T-904-0009	High Wear-Armour Cable	Lemo	Side	420.00
Diameter	Range (Steel)	Wearface Diameter	Crystal Diameter		
1/2"	.150" to 2.0"	5/8"	1/2"		
<b>Note:</b> Additional High Damped & PZT versions are available in the above configurations for an additional charge. These items are custom builds only.					

<b>2.25 MHz Dual Element Transducers</b>					
Materials used: *Cast iron, * Plastics (polypropylene, polyethylene, etc.), Thin Fiberglass.					
Diameter	Part #	Comments	Connector	Entry	Price \$
1/4"	T-002-1000		Potted	Top	295.00
1/4"	T-102-1000		Potted	Side	295.00
1/4"	T-202-1001		Microdot	Top	350.00
1/4"	T-302-1001		Microdot	Side	350.00
1/4"	T-042-1000	Hi Temp - 650F	Potted	Top	350.00
1/4"	T-242-1001	Hi Temp - 650F	Microdot	Top	405.00
1/2"	T-004-1000		Potted	Top	305.00
1/2"	T-104-1000		Potted	Side	305.00
1/2"	T-204-1001		Microdot	Top	380.00
1/2"	T-304-1001		Microdot	Side	380.00
1/2"	T-044-1000	Hi Temp - 650F	Potted	Top	380.00
1/2"	T-244-1001	Hi Temp - 650F	Microdot	Top	410.00
1/2"	T-104-1600	Composite	Potted	Side	350.00
1/2"	T-904-1009	High Wear-Armor Cable	Lemo	Side	420.00
Diameter	Range (Steel)	Wearface Diameter	Crystal Diameter		
1/4"	.060" to 4.0"	3/8"	1/4"		
1/2"	.060" to 5.0"	5/8"	1/2"		
<b>Note:</b> Additional High Damped & PZT versions are available in the above configurations for an additional charge. These items are custom builds only.					

<b>3.5 MHz Dual Element Transducers</b>					
Materials used: *Thru Coating multiple echo, *Cast iron, * Plastics (polypropylene, polyethylene, etc.), Thin Fiberglass.					
Diameter	Part #	Comments	Connector	Entry	Price \$
1/2"	T-104-9700	HD - Hi Damped	Potted	Side	350.00
1/2"	T-104-9900	CT - Coating Thickness	Potted	Side	350.00
1/2"	T-174-9700	HD-UMX	Potted	Top	550.00

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		UNDERWATER			
1/2"	T-074-9906	UMX-2 UNDERWATER	Potted	Top	605.00
1/2"	T-904-9709	Armor Cable–Hi Damped	Lemo	Side	420.00
<b>Diameter</b>	<b>Mode</b>	<b>Range (Steel)</b>	<b>Wearface Diameter</b>	<b>Crystal Diameter</b>	
1/2"	P-E Hi Damped	.100" to 4.0"	5/8"	1/2"	
1/2"	E-E (MX, ZX) Hi Damped	.125" to 4.0" Up to .075" of Coating	5/8"	1/2"	
1/2"	E-E (MVX, CMX) Hi Damped	Adjustable-Large Range	5/8"	1/2"	
<b>Note:</b> Additional style configurations for cable entry and connectors available upon request as custom builds only.					

<b>5.0 MHz Dual Element Transducers (**Included with gauge unless specified otherwise)</b>					
<b>Materials used:</b> *Steels, *Glass, *Thin plastics					
<b>Diameter</b>	<b>Part #</b>	<b>Comments</b>	<b>Connector</b>	<b>Entry</b>	<b>Price \$</b>
3/16"	T-001-2000		Potted	Top	295.00
3/16"	T-101-2000		Potted	Side	295.00
3/16"	T-101-2700	HD (Hi Damped)	Potted	Side	335.00
3/16"	T-101-2900	CT - Coating Thickness	Potted	Side	335.00
3/16"	T-301-2001		Microdot	Side	350.00
1/4"	T-002-2000		Potted	Top	295.00
1/4"	T-002-2700	HD (Hi Damped)	Potted	Top	335.00
1/4"	T-102-2000	**	Potted	Side	295.00
1/4"	T-102-2700	HD (Hi Damped)	Potted	Side	335.00
1/4"	T-102-2900	CT - Coating Thickness	Potted	Side	335.00
1/4"	T-202-2001		Microdot	Top	350.00
1/4"	T-302-2001		Microdot	Side	350.00
1/4"	T-302-2701	HD (Hi Damped)	Microdot	Side	380.00
1/4"	T-302-2901	CT - Coating Thickness	Microdot	Side	380.00
1/4"	T-042-2000	Hi Temp - 650F	Potted	Top	350.00
1/4"	T-042-2700	Hi Damp Hi Temp - 650F	Potted	Top	395.00
1/4"	T-212-2001	Hi Temp - 900F	Microdot	Top	445.00
1/4"	T-242-2001	Hi Temp - 650F	Microdot	Top	405.00
1/2"	T-004-2000		Potted	Top	305.00
1/2"	T-104-2000		Potted	Side	305.00
1/2"	T-104-2700	HD (Hi Damped)	Potted	Side	350.00
1/2"	T-104-2900	CT - Coating Thickness	Potted	Side	350.00
1/2"	T-204-2001		Microdot	Top	380.00
1/2"	T-304-2001		Microdot	Side	380.00
1/2"	T-304-2901	CT - Coating Thickness	Microdot	Side	395.00
1/2"	T-044-2000	Hi Temp - 650F	Potted	Top	380.00
1/2"	T-214-2001	Hi Temp - 900F	Microdot	Top	470.00
1/2"	T-244-2001	Hi Temp - 650F	Microdot	Top	410.00
1/2"	T-044-2700	Hi Damp Hi Temp - 650F	Potted	Top	420.00
1/2"	T-904-2009	High Wear-Armour Cable	Lemo	Side	420.00
1/2"	T-174-2006	UMX Underwater	Potted	Top	550.00
1/2"	T-074-2906	UMX-2 Underwater	Potted	Top	605.00
1/2"	T-074-2006	Underwater - 50 feet	Potted	Top	635.00

Diameter	Mode	Range (Steel)	Wearface Diameter	Crystal Diameter
3/16"	P-E	.040" to 2.0"	1/4"	3/16"
3/16"	E-E (MX, ZX) Hi Damped	.100" to 1.0"	1/4"	3/16"
1/4"	P-E	.040" to 6.0"	3/8"	1/4"
1/4"	E-E (MMX, ZX) Hi Damped	.100" to 1.0" Up to .040" of Coating	3/8"	1/4"
1/4"	E-E (MVX, CMX) Hi Damped	Adjustable - Large Range	3/8"	1/4"
1/2"	P-E	Adjustable - Large Range (.050 up)	5/8"	1/2"
1/2"	P-E (MVX, CMX) Hi Damped	Adjustable - Large Range	5/8"	1/2"

**Note:** Additional High Damped & PZT versions are available in the above configurations for an additional charge. These items are custom builds only.

### 7.5 MHz Dual Element Transducers

**Materials Used:** \*Steels, \*Aluminum, \*Glass, \*Thin Plastics

Diameter	Part #	Comments	Connector	Entry	Price \$
3/16"	T-001-3000		Potted	Top	295.00
3/16"	T-101-3000		Potted	Side	295.00
3/16"	T-101-3700	Hi Damped	Potted	Side	335.00
3/16"	T-101-3900	CT - Coating Thickness	Potted	Side	335.00
1/4"	T-002-3200	Exxon Specification	Potted	Top	305.00
1/4"	T-102-3200	Exxon Specification	Potted	Side	305.00
1/4"	T-202-3201	Exxon Specification	Microdot	Top	380.00
1/4"	T-302-3201	Exxon Specification	Microdot	Side	380.00
1/4"	T-152-3200	High Wear – Exxon 1/8" Thk Extended Ring	Potted	Side	325.00
1/4"	T-152-3210	High Wear+ - Exxon 1/4" Thk Extended Ring	Potted	Side	350.00
1/4"	T-002-3300	Extra Resolution	Potted	Top	330.00
1/4"	T-102-3300	Extra Resolution	Potted	Side	330.00
1/4"	T-102-3700	Hi Damped	Potted	Side	335.00
1/4"	T-102-3900	CT - Coating Thickness	Potted	Side	335.00
1/4"	T-202-3301	Extra Resolution	Microdot	Top	390.00
1/4"	T-302-3301	Extra Resolution	Microdot	Side	390.00

Diameter	Mode	Range (Steel)	Wearface Diameter	Crystal Diameter
3/16"	P-E	.040" to 2.0"	1/4"	3/16"
3/16"	P-E	.040" to 2.0"	1/4"	3/16"
3/16"	E-E (ZX) Hi Damped	.100" to 1.0"	1/4"	3/16"
1/4"	P-E Exxon	.040" to 6.0"	3/8"	1/4"
1/4"	P-E Extra Res	.025" to 6.0"	3/8"	1/4"
1/4"	E-E (MMX, ZX) Hi Damped	.200" to 1.0"(steel) .100" to 1.0 (Alum)	3/8"	1/4"
1/4"	E-E (MVX, CMX) Hi Damped	Adjustable – Large Range	3/8"	1/4"

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**Note:** Additional High Damped versions are available in the above configurations for an additional charge. These items are custom builds only.

**10.0 MHz Dual Element Transducers**

**Materials Used:** \*Aluminum, \*Titanium, \*Steels

Diameter	Part #	Comments	Connector	Entry	Price \$
3/16"	T-101-4000		Potted	Side	325.00
3/16"	T-001-4000		Potted	Top	325.00
1/4"	T-002-4000		Potted	Top	325.00
1/4"	T-102-4000		Potted	Side	325.00
1/4"	T-202-4001		Microdot	Top	385.00
1/4"	T-302-4001		Microdot	Side	385.00
1/2"	T-004-4000		Potted	Top	335.00
1/2"	T-104-4000		Potted	Side	335.00
1/2"	T-204-4001		Microdot	Top	400.00
1/2"	T-304-4001		Microdot	Side	400.00

Diameter	Mode	Range (Steel)	Wearface Diameter	Crystal Diameter
3/16"	P-E	.040" to 2.0"	1/4"	3/16"
1/4"	P-E	.040" to 6.0"	3/8"	1/4"
1/2"	P-E	.050" to 10.0"	5/8"	1/2"

**Note:** Additional High Damped versions are available in the above configurations for an additional charge. These items are custom builds only.

**Single Element Delay-Line (PX & PVX Gauges Only)**

**Single Element Delay Line Transducers** (\*\*15MHz is Included with gauge unless specified otherwise)



**Materials Used:** \*Aluminum, \*Titanium, \*Steels, \*Thin Plastics

Diameter	MHz	Part #	Comments	Connector	Entry	Price \$
1/4"	15	T-402-5507	**Standard	Microdot	Side	595.00
1/4"	20	T-402-6507		Microdot	Side	595.00

**PX Series – Measurement Range**

**Note:** Acrylic delay tips will measure plastics if the material velocity is different from that of acrylic. If the velocities are similar, a graphite tip will need to be used. Measurement ranges in plastics will vary depending on the type of plastic measured.

Diameter	MHz	Mode	Range (ST=Steel) (PL=Plastic)	Delay Tip Part #	Delay Tip Length	Delay Tip Diameter	Crystal Diameter
3/16"	15	E-E	.006" to .400" ST	X-532-0000	3/8"	3/16"	3/16"

3/16"	15	I-E	.060" to .750" ST	X-532-0000	3/8"	3/16"	3/16"
3/16"	15	E-E	.010" to .100" ST	X-533-0000	3/8"	3/16"	3/16"
3/16"	15	I-E	.060" to .500" ST	X-533-0000	3/8"	3/16"	3/16"
3/16"	15	PLAS	.005" to .150" PL	X-533-0000	3/8"	3/16"	3/16"
1/4"	15	E-E	.006" to .400" ST	F-000-7103	1/2"	1/4"	1/4"
1/4"	15	I-E	.060" to 1.00" ST	F-000-7103	1/2"	1/4"	1/4"
1/4"	15	I-E	.005" to .250" PL	F-000-7103	1/2"	1/4"	1/4"
1/4"	15	E-E	.010" to .100" ST	X-633-0000	3/8"	1/4"	1/4"
1/4"	15	I-E	.060" to 1.00" ST	X-633-0000	3/8"	1/4"	1/4"
1/4"	15	PLAS	.005" to .150" PL	X-633-0000	3/8"	1/4"	1/4"
3/16"	20	E-E	.006" to .400" ST	X-532-0000	3/8"	3/16"	3/16"
3/16"	20	I-E	.060" to .750" ST	X-532-0000	3/8"	3/16"	3/16"
3/16"	20	E-E	.015" to .100" ST	X-533-0000	3/8"	3/16"	3/16"
3/16"	20	I-E	.060" to .500" ST	X-533-0000	3/8"	3/16"	3/16"
3/16"	20	PLAS	.005" to .150" PL	X-533-0000	3/8"	3/16"	3/16"
1/4"	20	E-E	.006" to .400" ST	F-000-7103	1/2"	1/4"	1/4"
1/4"	20	I-E	.060" to .750" ST	F-000-7103	1/2"	1/4"	1/4"
1/4"	20	I-E	.005" to .250" PL	F-000-7103	1/2"	1/4"	1/4"
1/4"	20	E-E	.040" to .100" ST	X-633-0000	3/8"	1/4"	1/4"
1/4"	20	I-E	.060" to .500" ST	X-633-0000	3/8"	1/4"	1/4"
1/4"	20	PLAS	.005" to .150" PL	X-633-0000	3/8"	1/4"	1/4"
<p><b>Note:</b> Ranges were determined using standard 4340 steel calibration standards, and common plastic samples. These ranges may vary according to material type differences and surface conditions.</p>							

**Single Element Delay-Line (PX & PVX Gauges Only) – Continued**

<b>PVX A/B SCOPE– Measurement Range</b>							
<b>Note:</b> Acrylic delay tips will measure plastics if the material velocity is different from that of acrylic. If the velocities are similar, a graphite tip will need to be used. Measurement ranges in plastics will vary depending on the type of plastic measured.							
<b>Diameter</b>	<b>MHz</b>	<b>Mode</b>	<b>Range (ST=Steel) (PL=Plastic)</b>	<b>Delay Tip Part #</b>	<b>Delay Tip Length</b>	<b>Delay Tip Diameter</b>	<b>Crystal Diameter</b>
1/8"	15	E-E	.007" to .300" ST	X-132-0000	3/8"	1/8"	1/8"
1/8"	15	I-E	.020" to .400" ST	X-132-0000	3/8"	1/8"	1/8"
1/8"	15	I-E	.005" to .100" L	X-132-0000	3/8"	1/8"	1/8"
3/16"	15	E-E	.007" to .400" ST	X-532-0000	3/8"	3/16"	3/16"
3/16"	15	I-E	.020" to .500" ST	X-532-0000	3/8"	3/16"	3/16"
3/16"	15	I-E	.010" to .200" PL	X-532-0000	3/8"	3/16"	3/16"
3/16"	15	E-E	.010" to .500" ST	X-533-0000	3/8"	3/16"	3/16"
3/16"	15	I-E	.020" to .500" ST	X-533-0000	3/8"	3/16"	3/16"
3/16"	15	I-E	.005" to .200" PL	X-533-0000	3/8"	3/16"	3/16"
1/4"	15	E-E	.006" to .500" ST	F-000-7103	1/2"	1/4"	1/4"
1/4"	15	I-E	.025" to 1.00" ST	F-000-7103	1/2"	1/4"	1/4"
1/4"	15	I-E	.005" to .150"	F-000-7103	1/2"	1/4"	1/4"
1/4"	15	E-E	.010" to .500" ST	X-633-0000	3/8"	1/4"	1/4"
1/4"	15	I-E	.020" to .500" ST	X-633-0000	3/8"	1/4"	1/4"
1/4"	15	I-E	.005" to .250" PL	X-633-0000	3/8"	1/4"	1/4"
3/16"	20	E-E	.006" to .400" ST	X-532-0000	3/8"	3/16"	3/16"
3/16"	20	I-E	.060" to .750" ST	X-532-0000	3/8"	3/16"	3/16"
3/16"	20	E-E	.015" to .100" ST	X-533-0000	3/8"	3/16"	3/16"
3/16"	20	I-E	.060" to .500" ST	X-533-0000	3/8"	3/16"	3/16"
3/16"	20	PLAS	.005" to .150" PL	X-533-0000	3/8"	3/16"	3/16"



1/4"	20	E-E	.006" to .400" ST	F-000-7103	1/2"	1/4"	1/4"
1/4"	20	I-E	.060" to .750" ST	F-000-7103	1/2"	1/4"	1/4"
1/4"	20	I-E	.005" to .250" PL	F-000-7103	1/2"	1/4"	1/4"
1/4"	20	E-E	.040" to .100" ST	X-633-0000	3/8"	1/4"	1/4"
1/4"	20	I-E	.060" to .500" ST	X-633-0000	3/8"	1/4"	1/4"
1/4"	20	PLAS	.005" to .150" PL	X-633-0000	3/8"	1/4"	1/4"

**Note:** Ranges were determined using standard 4340 steel calibration standards, and common plastic samples. These ranges may vary according to material type differences and surface conditions.

### Single Element Delay Line Pencil Transducers



**Materials Used:** \*Aluminum, \*Titanium, \*Steels, \*Thin Plastics

Diameter	MHz	Part #	Comments	Connector	Entry	Price \$
3/16"	10	T-481-4507	1/16" Tip	Microdot	Top	675.00
3/16"	10	T-681-4507	90° Right Angle	Microdot	Side	675.00
3/16"	15	T-581-5507	1/16" Tip	Microdot	Side	775.00

**Note:** Should be used in conjunction with and A-Scan gauge model for best accuracy.

### PVX A/B SCOPE– Measurement Range

**Note:** Acrylic delay tips will measure plastics if the material velocity is different from that of acrylic. If the velocities are similar, a graphite tip will need to be used. Measurement ranges in plastics will vary depending on the type of plastic measured.

Diameter	MHz	Mode	Range (ST=Steel) (PL=Plastic)	Delay Tip Part #	Delay Tip Length	Delay Tip Diameter	Crystal Diameter
3/16"	10	E-E	.006" to .300" ST	X-152-0000	3/8"	1/16"	3/16"
3/16"	10	I-E	.010" to .400" ST	X-152-0000	3/8"	1/16"	3/16"
3/16"	10	E-E	.005" to .300" PL	X-152-0000	3/8"	1/16"	3/16"
3/16"	10	I-E	.005" to .300" PL	X-152-0000	3/8"	1/16"	3/16"
3/16"	10	E-E	.006" to .300" ST	X-752-0000	3/8"	1/8"	3/16"
3/16"	10	I-E	.010" to .500" ST	X-752-0000	3/8"	1/8"	3/16"



3/16"	10	E-E	.005" to .400" PL	X-752-0000	3/8"	1/8"	3/16"
3/16"	10	I-E	.005" to .400" PL	X-752-0000	3/8"	1/8"	3/16"
3/16"	15	E-E	.006" to .100" ST	X-152-0000	3/8"	1/16"	3/16"
3/16"	15	I-E	.008" to .250" ST	X-152-0000	3/8"	1/16"	3/16"
3/16"	15	E-E	.005" to .150" PL	X-152-0000	3/8"	1/16"	3/16"
3/16"	15	I-E	.005" to .250" PL	X-152-0000	3/8"	1/16"	3/16"
3/16"	15	E-E	.006" to .150" ST	X-752-0000	3/8"	1/8"	3/16"
3/16"	15	I-E	.006" to .400" ST	X-752-0000	3/8"	1/8"	3/16"
3/16"	15	E-E	.005" to .100" PL	X-752-0000	3/8"	1/8"	3/16"
3/16"	15	I-E	.005" to .150" PL	X-752-0000	3/8"	1/8"	3/16"

**Note:** Ranges were determined using standard 4340 steel calibration standards, and common plastic samples. These ranges may vary according to material type differences and surface conditions.

**Single Element Contact Transducers - (cable not included)**



**Materials Used:** \*Aluminum, \*Titanium, \*Steels, \*Plastics


Diameter	MHz	Part #	Comments	Connector	Entry	Price \$
1/8"	5	T-4903-2875		Microdot	Side	400.00
1/8"	5	T-5903-2875		Microdot	Top	400.00
1/8"	10	T-4903-4875		Microdot	Side	430.00
1/8"	10	T-5903-4875		Microdot	Top	430.00
1/4"	2.25	T-4023-1855		Microdot	Side	360.00
1/4"	2.25	T-5023-1855		Microdot	Top	360.00
1/4"	5	T-4023-2855		Microdot	Side	360.00
1/4"	5	T-5023-2855		Microdot	Top	360.00
1/4"	10	T-4023-4855		Microdot	Side	395.00
1/4"	10	T-5023-4855		Microdot	Top	395.00
1/2"	2.25	T-4043-1855		Microdot	Side	360.00
1/2"	2.25	T-5043-1855		Microdot	Top	360.00
1/2"	5	T-4043-2855		Microdot	Side	360.00
1/2"	5	T-5043-2855		Microdot	Top	360.00

**PVX A/B SCOPE– Measurement Range**

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**Note:** Ranges were determined using standard 4340 steel calibration standards, and common plastic samples . These ranges may vary according to material type differences and surface conditions.

Diameter	MHz	Mode	Range (ST=Steel) (PL=Plastic)	Wearface Diameter	Crystal Diameter
1/8"	5	P-E	.040" to 3.0" ST	1/4"	1/8"
1/8"	5	E-E	.020" to 3.0" ST	1/4"	1/8"
1/8"	5	P-E	.020" to .500" PL	1/4"	1/8"
1/8"	10	P-E	.040" to 3.0" ST	1/4"	1/8"
1/8"	10	E-E	.010" to 3.0" ST	1/4"	1/8"
1/8"	10	P-E	.020" to .400" PL	1/4"	1/8"
1/4"	2.25	P-E	.050" to 3.0" ST	3/8"	1/4"
1/4"	2.25	E-E	.040" to 3.0" ST	3/8"	1/4"
1/4"	2.25	P-E	.040" to .650" PL	3/8"	1/4"
1/4"	5	P-E	.040" to 6.0" ST	3/8"	1/4"
1/4"	5	E-E	.020" to 3.0" ST	3/8"	1/4"
1/4"	5	P-E	.025" to .600" PL	3/8"	1/4"
1/4"	10	P-E	.025" to 6.0" ST	3/8"	1/4"
1/4"	10	E-E	.010" to 3.0" ST	3/8"	1/4"
1/4"	10	P-E	.020" to .500" PL	3/8"	1/4"
1/2"	2.25	P-E	.075" to 10.0" ST	5/8"	1/2"
1/2"	2.25	E-E	.100" to 3.0" ST	5/8"	1/2"
1/2"	2.25	P-E	.065" to .750" PL	5/8"	1/2"

**Single Element Membrane Transducers - (UMX-2 Underwater)**



**Materials Used:** \*Aluminum, \*Titanium, \*Steels

Diameter	MHz	Part #	Comments	Connector	Entry	Price \$
1/2"	2.25	T-9441-1809	Underwater Membrane	Lemo UW	Top	605.00
1/2"	5	T-9441-2809	Underwater Membrane	Lemo UW	Top	605.00

**UMX-2 (Measurement Range)**

**Note:** Ranges were determined using standard 4340 steel calibration standards, and common plastic samples . These ranges may vary according to material type differences and surface conditions.

Diameter	MHz	Mode	Range (ST=Steel)	Wearface Diameter	Crystal Diameter
1/2"	2.25	E-E-E	.075" to 10.0" ST	1.0"	1/2"

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1/2"	5	E-E-E	.040" to 6.0" ST	1.0"	1/2"
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## Accessory Items

Instrument & Carrying Cases			
			
Part #	Description	Comments	Price \$
F-112-0005	MX & PX Series Instrument Case	Nylon	60.00
F-149-0001	CMX, MVX, PVX, MMX-7 Inst. Case	Nylon	85.00
F-302-0001	ZX & PZX Series Instrument Case	Nylon	60.00
A-302-6002	ZX & PZX Series Instrument Case	Rubber	90.00
A-149-6002	CMX, MVX, PVX, MMX-7 Inst. Case (v2.0)	Rubber	110.00
F-185-0012	UMX-2 Wrist Strap & Safety Cable	Nylon	20.00
A-100-6002	Plastic Carrying Brief Case	MX, PX only	40.00
A-302-6003	Plastic Carrying Brief Case	ZX, PZX only	40.00
A-100-6003	Plastic Carrying Brief Case	Large Gauges	40.00

Transducer Cables				
				
	Lemo 00 M	Lemo 00 F	Microdot	BNC
Part #	Description	Comments	Price \$	
N-104-0020	4' Single Lemo 00 to Microdot	PX, PVX, CMX	75.00	
N-104-0070	4' Single Lemo 00 to BNC	PVX, CMX	70.00	
N-104-0000	4' Single Lemo 00 to Lemo 00	PVX, CMX	75.00	
N-104-2990	4' Single Lemo UW to Lemo UW	UMX-2	125.00	
N-104-0021	4' Dual Lemo to Microdot Single	MVX only	110.00	
N-204-0020	4' Dual Lemo to Microdot	All Gauges	115.00	
N-204-3020	4' Dual Lemo to Microdot, w/ 900F Hi Temp Strain Relief	All Gauges	180.00	
N-204-0000	4' Dual Lemo to Lemo	All Gauges	115.00	
N-204-1000	4' Dual Lemo to Lemo (Armored)	All Dual Gauges	165.00	
N-204-5020	4' Dual Lemo to Microdot	Armored	165.00	
N-204-4020	4' Dual Lemo to Microdot	Hi Temp Armored	195.00	
Custom	Underwater cables	All Dual Gauges	Call	

**Couplant**



Part #	Description	Comments	Price \$
V-000-0001	4 oz bottle		17.00
V-000-0003	12 oz bottle		28.00
V-000-0004	1 gallon		170.00
V-000-0002	2 oz tube (High Temp – 900F)		45.00
V-000-0007	Underwater Gasket Lubricant – 6g	UMX & UMX-2	3.00
A-185-0001	O-Ring kit (1-lubricant, 2-gaskets)	UMX-2	6.00

**Calibration Blocks**




Part #	Description	Mat'l Type	Price \$
X-000-0001	5 Step - .100" to .500"	4340 Steel	235.00
X-000-0002	4 Step - .250 to 1.0"	4340 Steel	235.00
Custom	5 Step - .100" to .500"	1018 Steel	235.00
Custom	4 Step - .250 to 1.0"	1018 Steel	235.00
X-000-0022	5 Step – 2.5 – 12.5mm	1018 Steel	255.00
X-000-0021	4 Step – 6.25 – 25.0mm	1018 Steel	255.00
Custom	5 Step - .100" to .500"	7075 Aluminum	235.00
Custom	4 Step - .250 to 1.0"	7075 Aluminum	235.00
Custom	5 Step - .100" to .500"	304 Stainless Steel	530.00
Custom	4 Step - .250 to 1.0"	304 Stainless Steel	530.00
Custom	5 Step - .100" to .500"	Titanium	595.00
Custom	4 Step - .250 to 1.0"	Titanium	595.00
X-000-0005	Carrying case	Wood	60.00
Custom	10 Step - .100" to 1.0"	1018 Steel	525.00
Custom	10 Step - .100" to 1.0"	7075 Aluminum	525.00
Custom	10 Step - .100" to 1.0"	304 Stainless Steel	1045.00
Custom	10 Step - .100" to 1.0"	Titanium	1255.00
Custom	Carrying Case	Wood	150.00
Custom	4 Step Thin - .04" - .100"	1018 Steel	300.00
Custom	4 Step Thin - .04" - .100"	7075 Aluminum	300.00
Custom	4 Step Thin - .04" - .100"	304 Stainless Steel	525.00
Custom	4 Step Thin - .04" - .100"	Titanium	890.00

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Custom	Carrying Case	Wood	60.00
Custom	10 Step Metric – 1 to 10 mm	1018 Steel	595.00
Custom	10 Step Metric – 1 to 10 mm	7075 Aluminum	595.00
Custom	10 Step Metric – 1 to 10 mm	304 Stainless Steel	1190.00
Custom	10 Step Metric – 1 to 10 mm	Titanium	1490.00
Custom	Carrying Case	Wood	150.00
Custom	10 Step Metric – 2 to 20 mm	1018 Steel	595.00
Custom	10 Step Metric – 2 to 20 mm	7075 Aluminum	595.00
Custom	10 Step Metric – 2 to 20 mm	304 Stainless Steel	1190.00
Custom	10 Step Metric – 2 to 20 mm	Titanium	1490.00
Custom	Carrying Case	Wood	150.00
Custom	10 Step Metric – 2.5 to 25 mm	1018 Steel	595.00
Custom	10 Step Metric – 2.5 to 25 mm	7075 Aluminum	595.00
Custom	10 Step Metric – 2.5 to 25 mm	304 Stainless Steel	1190.00
Custom	10 Step Metric – 2.5 to 25 mm	Titanium	1490.00
Custom	Carrying Case	Wood	150.00
Custom	8 Step Metric – 1 to 8 mm	1018 Steel	525.00
Custom	8 Step Metric – 1 to 8 mm	7075 Aluminum	525.00
Custom	8 Step Metric – 1 to 8 mm	304 Stainless Steel	820.00
Custom	8 Step Metric – 1 to 8 mm	Titanium	1040.00
Custom	Carrying Case	Wood	100.00

**Delay Tips - Delay Line Transducer Accessories**



Part #	Description	Comments	Price \$
F-000-7102	1/4" Dia. x 3/8" L Delay Tips	Acrylic	18.00
F-000-7103	1/4" Dia. x 1/2" L Delay Tips	Acrylic	18.00
X-132-0000	1/8" Cone Tip Delay Line	Acrylic	18.00
X-532-0000	3/16" Cone Tip Delay Line	Acrylic	18.00
X-633-0000	1/4" Graphite Tip Delay (plastics)	Graphite	45.00
X-533-0000	3/16" Graphite Cone Tip Delay Line	Graphite	50.00
X-152-0000	1/16" Dia. x .450 L Delay Tip (Pencil)	Acrylic	55.00
X-752-0000	1/8" Dia. x .450 L Delay Tip (Pencil)	Acrylic	55.00

**Misc. Accessories**




Part #	Description	Comments	Price \$
F-000-7001	Bell Shaped Spring Loaded Probe Holder (V-Block) – Dual Probes	<sup>3</sup> / <sub>16</sub> " & <sup>1</sup> / <sub>4</sub> " Housing Only	170.00
F-000-7000	Bell shaped Spring Loaded Probe	Top Cable Entry	195.00

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	Holder (V-Block) – Pencil Probes	Models Only	
A-129-6003	6" Extension Wand for Single Element Microdot Transducers		215.00
F-000-7053	Replaceable Membrane Pack (Qty 5)		11.50

<b>Data Cables</b>			
<b>Part #</b>	<b>Description</b>	<b>Comments</b>	<b>Price \$</b>
N-306-0010	6 foot RS232 (DB-9 to Lemo)		75.00
N-402-0510	USB to Serial Adapter		40.00
N-003-0330	USB-C to USB TYPE A 3' data cable	v2.0 gauges	28.00

<b>Bluetooth &amp; RS232 Modules</b>			
<b>Part #</b>	<b>Description</b>	<b>Comments</b>	<b>Price \$</b>
A-303-1002	Bluetooth Module (integral antenna)	ZX, PZX & MX-5	220.00
A-302-1002	Hardware RS232 Serial Module	ZX & PZX	220.00