

DAKOTA ULTRASONICS

Thickness Gauge Transducers & Accessories - Price List

Date: 02/01/19

Dual Transducer Reference Chart

| Frequency & Diameter Disks |
|---|
| |
| <p>Note: 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>Note: 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>Note: 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)

| 1.0 MHz Dual Element Transducers | | | | |
|--|---------------|------------------------|------------------|-------|
| Materials used: *Cast iron, * Plastics (polypropylene, polyethylene, etc.), *Fiberglass. | | | | |
| Diameter | Part # | Comments | Connector | Entry |
| 1/2" | T-004-0000 | | Potted | Top |
| 1/2" | T-104-0000 | | Potted | Side |
| 1/2" | T-204-0001 | | Microdot | Top |
| 1/2" | T-304-0001 | | Microdot | Side |
| 1/2" | T-104-0600 | Composite | Potted | Side |
| 1/2" | T-904-0009 | High Wear-Armour Cable | Lemo | Side |
| Diameter | Range (Steel) | Wearface Diameter | Crystal Diameter | |
| 1/2" | .150" to 2.0" | 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. | | | | |

| 2.25 MHz Dual Element Transducers | | | | |
|--|---------------|-----------------------|------------------|-------|
| Materials used: *Cast iron, * Plastics (polypropylene, polyethylene, etc.), Thin Fiberglass. | | | | |
| Diameter | Part # | Comments | Connector | Entry |
| 1/4" | T-002-1000 | | Potted | Top |
| 1/4" | T-102-1000 | | Potted | Side |
| 1/4" | T-202-1001 | | Microdot | Top |
| 1/4" | T-302-1001 | | Microdot | Side |
| 1/4" | T-042-1000 | Hi Temp - 650F | Potted | Top |
| 1/4" | T-242-1001 | Hi Temp - 650F | Microdot | Top |
| 1/2" | T-004-1000 | | Potted | Top |
| 1/2" | T-104-1000 | | Potted | Side |
| 1/2" | T-204-1001 | | Microdot | Top |
| 1/2" | T-304-1001 | | Microdot | Side |
| 1/2" | T-044-1000 | Hi Temp - 650F | Potted | Top |
| 1/2" | T-244-1001 | Hi Temp - 650F | Microdot | Top |
| 1/2" | T-104-1600 | Composite | Potted | Side |
| 1/2" | T-904-1009 | High Wear-Armor Cable | Lemo | Side |
| 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" | |
| Note: Additional High Damped & PZT versions are available in the above configurations for an additional charge. These items are custom builds only. | | | | |

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

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| | | | | | |
|---|-----------------------------|---|--------------------------|-------------------------|--|
| | | UNDERWATER | | | |
| 1/2" | T-074-9906 | UMX-2 UNDERWATER | Potted | Top | |
| 1/2" | T-904-9709 | Armor Cable–Hi Damped | Lemo | Side | |
| Diameter | Mode | Range (Steel) | Wearface Diameter | Crystal Diameter | |
| 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" | |
| Note: Additional style configurations for cable entry and connectors available upon request as custom builds only. | | | | | |

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

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| 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 |
|----------|------------|------------------------|-----------|-------|
| 3/16" | T-001-3000 | | Potted | Top |
| 3/16" | T-101-3000 | | Potted | Side |
| 3/16" | T-101-3700 | Hi Damped | Potted | Side |
| 3/16" | T-101-3900 | CT - Coating Thickness | Potted | Side |
| 1/4" | T-002-3200 | Exxon Specification | Potted | Top |
| 1/4" | T-102-3200 | Exxon Specification | Potted | Side |
| 1/4" | T-202-3201 | Exxon Specification | Microdot | Top |
| 1/4" | T-302-3201 | Exxon Specification | Microdot | Side |
| 1/4" | T-002-3300 | Extra Resolution | Potted | Top |
| 1/4" | T-102-3300 | Extra Resolution | Potted | Side |
| 1/4" | T-102-3700 | Hi Damped | Potted | Side |
| 1/4" | T-102-3900 | CT - Coating Thickness | Potted | Side |
| 1/4" | T-202-3301 | Extra Resolution | Microdot | Top |
| 1/4" | T-302-3301 | Extra Resolution | Microdot | Side |

| 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" |

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

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| 10.0 MHz Dual Element Transducers | | | | | |
|--|------------|----------|-----------|-------|--|
| Materials Used: *Aluminum, *Titanium, *Steels | | | | | |
| Diameter | Part # | Comments | Connector | Entry | |
| 3/16" | T-101-4000 | | Potted | Side | |
| 3/16" | T-001-4000 | | Potted | Top | |
| 1/4" | T-002-4000 | | Potted | Top | |
| 1/4" | T-102-4000 | | Potted | Side | |
| 1/4" | T-202-4001 | | Microdot | Top | |
| 1/4" | T-302-4001 | | Microdot | Side | |
| 1/2" | T-004-4000 | | Potted | Top | |
| 1/2" | T-104-4000 | | Potted | Side | |
| 1/2" | T-204-4001 | | Microdot | Top | |
| 1/2" | T-304-4001 | | Microdot | Side | |

| 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 |
|----------|-----|------------|------------|-----------|-------|
| 1/4" | 15 | T-402-5507 | **Standard | Microdot | Side |
| 1/4" | 20 | T-402-6507 | | Microdot | Side |

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 | X-241-0000 | 1/2" | 1/4" | 1/4" |
| 1/4" | 15 | I-E | .060" to 1.00" ST | X-241-0000 | 1/2" | 1/4" | 1/4" |
| 1/4" | 15 | I-E | .005" to .250" PL | X-241-0000 | 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 | X-241-0000 | 1/2" | 1/4" | 1/4" |
| 1/4" | 20 | I-E | .060" to .750" ST | X-241-0000 | 1/2" | 1/4" | 1/4" |
| 1/4" | 20 | I-E | .005" to .250" PL | X-241-0000 | 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. | | | | | | | |

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

| 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 |
| 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 | X-241-0000 | 1/2" | 1/4" | 1/4" |
| 1/4" | 15 | I-E | .025" to 1.00" ST | X-241-0000 | 1/2" | 1/4" | 1/4" |
| 1/4" | 15 | I-E | .005" to .150" | X-241-0000 | 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" |

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| | | | | | | | |
|------|----|------|-------------------|------------|------|------|------|
| 1/4" | 20 | E-E | .006" to .400" ST | X-241-0000 | 1/2" | 1/4" | 1/4" |
| 1/4" | 20 | I-E | .060" to .750" ST | X-241-0000 | 1/2" | 1/4" | 1/4" |
| 1/4" | 20 | I-E | .005" to .250" PL | X-241-0000 | 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 |
|----------|-----|------------|-----------------|-----------|-------|
| 3/16" | 10 | T-481-4507 | 1/16" Tip | Microdot | Top |
| 3/16" | 10 | T-681-4507 | 90° Right Angle | Microdot | Side |
| 3/16" | 15 | T-581-5507 | 1/16" Tip | Microdot | Side |

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-532-0000 | 3/8" | 1/16" | 3/16" |
| 3/16" | 10 | I-E | .010" to .400" ST | X-532-0000 | 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-752-0000 | 3/8" | 1/16" | 3/16" |
| 3/16" | 10 | E-E | .006" to .300" ST | X-532-0000 | 3/8" | 1/8" | 3/16" |
| 3/16" | 10 | I-E | .010" to .500" ST | X-532-0000 | 3/8" | 1/8" | 3/16" |

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| | | | | | | | |
|-------|----|-----|-------------------|------------|------|-------|-------|
| 3/16" | 10 | E-E | .005" to .400" PL | X-152-0000 | 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-532-0000 | 3/8" | 1/16" | 3/16" |
| 3/16" | 15 | I-E | .008" to .250" ST | X-532-0000 | 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-752-0000 | 3/8" | 1/16" | 3/16" |
| 3/16" | 15 | E-E | .006" to .150" ST | X-532-0000 | 3/8" | 1/8" | 3/16" |
| 3/16" | 15 | I-E | .006" to .400" ST | X-532-0000 | 3/8" | 1/8" | 3/16" |
| 3/16" | 15 | E-E | .005" to .100" PL | X-152-0000 | 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 |
|----------|------|-------------|----------|-----------|-------|
| 1/8" | 5 | T-4903-2875 | | Microdot | Side |
| 1/8" | 5 | T-5903-2875 | | Microdot | Top |
| 1/8" | 10 | T-4903-4875 | | Microdot | Side |
| 1/8" | 10 | T-5903-4875 | | Microdot | Top |
| 1/4" | 2.25 | T-4023-1855 | | Microdot | Side |
| 1/4" | 2.25 | T-5023-1855 | | Microdot | Top |
| 1/4" | 5 | T-4023-2855 | | Microdot | Side |
| 1/4" | 5 | T-5023-2855 | | Microdot | Top |
| 1/4" | 10 | T-4023-4855 | | Microdot | Side |
| 1/4" | 10 | T-5023-4855 | | Microdot | Top |
| 1/2" | 2.25 | T-4043-1855 | | Microdot | Side |
| 1/2" | 2.25 | T-5043-1855 | | Microdot | Top |
| 1/2" | 5 | T-4043-2855 | | Microdot | Side |
| 1/2" | 5 | T-5043-2855 | | Microdot | Top |

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 |
|----------|------|-------------|---------------------|-----------|-------|
| 1/2" | 2.25 | T-9441-1809 | Underwater Membrane | Lemo UW | Top |
| 1/2" | 5 | T-9441-2809 | Underwater Membrane | Lemo UW | Top |

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 |
|----------|-----|------|---------------------|----------------------|---------------------|
|----------|-----|------|---------------------|----------------------|---------------------|

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| | | | | | |
|------|------|-------|-------------------|------|------|
| 1/2" | 2.25 | E-E-E | .075" to 10.0" ST | 1.0" | 1/2" |
| 1/2" | 5 | E-E-E | .040" to 6.0" ST | 1.0" | 1/2" |

Accessory Items

Instrument & Carrying Cases



| Part # | Description | Comments |
|------------|--|--------------|
| F-112-0005 | MX & PX Series Instrument Case | Nylon |
| F-149-0001 | CMX, MVX, PVX, MMX-7 Inst. Case | Nylon |
| F-302-0001 | ZX & PZX Series Instrument Case | Nylon |
| A-302-6002 | ZX & PZX Series Instrument Case | Rubber |
| A-149-6002 | CMX, MVX, PVX, MMX-7 Inst. Case (v2.0) | Rubber |
| F-185-0012 | UMX-2 Wrist Strap & Safety Cable | Nylon |
| A-100-6002 | Plastic Carrying Brief Case | MX, PX only |
| A-302-4001 | Plastic Carrying Brief Case | ZX, PZX only |
| A-100-6003 | Plastic Carrying Brief Case | Large Gauges |

Transducer Cables



| | Lemo 00 M | Lemo 00 F | Microdot | BNC |
|------------|---------------------------------|-----------|----------|-----------------|
| Part # | Description | | | Comments |
| N-104-0020 | 4' Single Lemo 00 to Microdot | | | PX, PVX, CMX |
| N-104-0070 | 4' Single Lemo 00 to BNC | | | PVX, CMX |
| N-104-0000 | 4' Single Lemo 00 to Lemo 00 | | | PVX, CMX |
| N-104-2990 | 4' Single Lemo UW to Lemo UW | | | UMX-2 |
| N-104-0021 | 4' Dual Lemo to Microdot Single | | | MVX only |
| N-204-0020 | 4' Dual Lemo to Microdot | | | All Gauges |
| N-204-0000 | 4' Dual Lemo to Lemo | | | All Gauges |
| N-204-1000 | 4' Dual Lemo to Lemo (Armored) | | | All Dual Gauges |
| N-204-5020 | 4' Dual Lemo to Microdot | | | Armored |
| N-204-4020 | 4' Dual Lemo to Microdot | | | Hi Temp Armored |
| Custom | Underwater cables | | | All Dual Gauges |

Couplant



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

Calibration Blocks



| Part # | Description | Mat'l Type |
|------------|-----------------------------|---------------------|
| X-000-0001 | 5 Step - .100" to .500" | 4340 Steel |
| X-000-0002 | 4 Step - .250 to 1.0" | 4340 Steel |
| Custom | 5 Step - .100" to .500" | 1018 Steel |
| Custom | 4 Step - .250 to 1.0" | 1018 Steel |
| Custom | 5 Step - .100" to .500" | 7075 Aluminum |
| Custom | 4 Step - .250 to 1.0" | 7075 Aluminum |
| Custom | 5 Step - .100" to .500" | 304 Stainless Steel |
| Custom | 4 Step - .250 to 1.0" | 304 Stainless Steel |
| Custom | 5 Step - .100" to .500" | Titanium |
| Custom | 4 Step - .250 to 1.0" | Titanium |
| X-000-0005 | Carrying case | Wood |
| Custom | 10 Step - .100" to 1.0" | 1018 Steel |
| Custom | 10 Step - .100" to 1.0" | 7075 Aluminum |
| Custom | 10 Step - .100" to 1.0" | 304 Stainless Steel |
| Custom | 10 Step - .100" to 1.0" | Titanium |
| Custom | Carrying Case | Wood |
| Custom | 4 Step Thin - .04" - .100" | 1018 Steel |
| Custom | 4 Step Thin - .04" - .100" | 7075 Aluminum |
| Custom | 4 Step Thin - .04" - .100" | 304 Stainless Steel |
| Custom | 4 Step Thin - .04" - .100" | Titanium |
| Custom | Carrying Case | Wood |
| Custom | 10 Step Metric – 1 to 10 mm | 1018 Steel |
| Custom | 10 Step Metric – 1 to 10 mm | 7075 Aluminum |
| Custom | 10 Step Metric – 1 to 10 mm | 304 Stainless Steel |

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| | | | |
|--------|-------------------------------|---------------------|--|
| Custom | 10 Step Metric – 1 to 10 mm | Titanium | |
| Custom | Carrying Case | Wood | |
| Custom | 10 Step Metric – 2 to 20 mm | 1018 Steel | |
| Custom | 10 Step Metric – 2 to 20 mm | 7075 Aluminum | |
| Custom | 10 Step Metric – 2 to 20 mm | 304 Stainless Steel | |
| Custom | 10 Step Metric – 2 to 20 mm | Titanium | |
| Custom | Carrying Case | Wood | |
| Custom | 10 Step Metric – 2.5 to 25 mm | 1018 Steel | |
| Custom | 10 Step Metric – 2.5 to 25 mm | 7075 Aluminum | |
| Custom | 10 Step Metric – 2.5 to 25 mm | 304 Stainless Steel | |
| Custom | 10 Step Metric – 2.5 to 25 mm | Titanium | |
| Custom | Carrying Case | Wood | |
| Custom | 8 Step Metric – 1 to 8 mm | 1018 Steel | |
| Custom | 8 Step Metric – 1 to 8 mm | 7075 Aluminum | |
| Custom | 8 Step Metric – 1 to 8 mm | 304 Stainless Steel | |
| Custom | 8 Step Metric – 1 to 8 mm | Titanium | |
| Custom | Carrying Case | Wood | |

Delay Tips - Delay Line Transducer Accessories



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

Misc. Accessories



| Part # | Description | Comments |
|------------|---|---------------------------|
| F-000-7001 | Bell Shaped Spring Loaded Probe Holder (V-Block) | Std Can Style Probes Only |
| A-129-6003 | 6" Extension Wand for Single Element Microdot Transducers | |
| F-000-7053 | Replaceable Membrane Pack (Qty 5) | |

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| Data Cables | | | |
|--------------------|-----------------------------------|-----------------|--|
| Part # | Description | Comments | |
| N-306-0010 | 6 foot RS232 (DB-9 to Lemo) | | |
| N-406-0350 | 6 foot RS232 (DB-9 M/F) | THOR only | |
| N-402-0510 | USB to Serial Adapter | | |
| N-003-0330 | USB-C to USB TYPE A 3' data cable | v2.0 gauges | |

| Line Power Adapters | | | |
|----------------------------|-------------------------|-----------------|--|
| Part # | Description | Comments | |
| N-006-0240 | 110 – 220 VAC to 12 VDC | THOR only | |
| N-506-0060 | Universal Power Cord | THOR only | |

| Wireless Modules | | | |
|-------------------------|--|-----------------|--|
| Part # | Description | Comments | |
| Custom | Bluetooth Module (w/ integral antenna) | MX-5 & MMX-6 | |