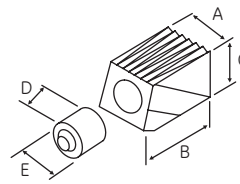


# Small Angle Beam Transducers—North American Standards

## Type MSW-QC

| Replaceable Wedge 6 mm (.25 in) |      |     |      |      |      |     |      |      |      |      |          |
|---------------------------------|------|-----|------|------|------|-----|------|------|------|------|----------|
| Wedge Angle                     | A    |     | B    |      | C    |     | D    |      | E    |      | Thread   |
|                                 | mm   | in  | mm   | in   | mm   | in  | mm   | in   | mm   | in   |          |
| 45°                             | 11.4 | .45 | 19.1 | .75  | 9.4  | .37 | 14.1 | 0.56 | 10.7 | 0.42 | 3/8 - 32 |
| 60°                             | 11.4 | .45 | 21.3 | .84  | 11.2 | .44 | 14.1 | 0.56 | 10.7 | 0.42 | 3/8 - 32 |
| 70°                             | 11.4 | .45 | 25.4 | 1.00 | 12.7 | .50 | 14.1 | 0.56 | 10.7 | 0.42 | 3/8 - 32 |
| 90°                             | 11.4 | .45 | 24.1 | .95  | 12.7 | .50 | 14.1 | 0.56 | 10.7 | 0.42 | 3/8 - 32 |



| Replaceable Wedge 10 mm (.375 in) |      |     |      |      |      |     |      |      |      |      |          |
|-----------------------------------|------|-----|------|------|------|-----|------|------|------|------|----------|
| Wedge Angle                       | A    |     | B    |      | C    |     | D    |      | E    |      | Thread   |
|                                   | mm   | in  | mm   | in   | mm   | in  | mm   | in   | mm   | in   |          |
| 45°                               | 14.0 | .55 | 22.6 | .89  | 11.9 | .47 | 14.7 | 0.58 | 14.0 | 0.55 | 1/2 - 28 |
| 60°                               | 14.0 | .55 | 26.4 | 1.04 | 14.0 | .55 | 14.7 | 0.58 | 14.0 | 0.55 | 1/2 - 28 |
| 70°                               | 14.0 | .55 | 30.2 | 1.19 | 14.7 | .58 | 14.7 | 0.58 | 14.0 | 0.55 | 1/2 - 28 |
| 90°                               | 14.0 | .55 | 29.2 | 1.15 | 15.5 | .61 | 14.7 | 0.58 | 14.0 | 0.55 | 1/2 - 28 |

| Replaceable Wedge 13 mm (.50 in) |      |     |      |      |      |     |      |      |      |      |          |
|----------------------------------|------|-----|------|------|------|-----|------|------|------|------|----------|
| Wedge Angle                      | A    |     | B    |      | C    |     | D    |      | E    |      | Thread   |
|                                  | mm   | in  | mm   | in   | mm   | in  | mm   | in   | mm   | in   |          |
| 45°                              | 17.8 | .70 | 26.7 | 1.05 | 14.0 | .55 | 16.5 | 0.65 | 17.8 | 0.70 | 5/8 - 24 |
| 60°                              | 17.8 | .70 | 31.5 | 1.24 | 16.3 | .64 | 16.5 | 0.65 | 17.8 | 0.70 | 5/8 - 24 |
| 70°                              | 17.8 | .70 | 35.8 | 1.41 | 17.3 | .68 | 16.5 | 0.65 | 17.8 | 0.70 | 5/8 - 24 |
| 90°                              | 17.8 | .70 | 35.3 | 1.39 | 18.5 | .73 | 16.5 | 0.65 | 17.8 | 0.70 | 5/8 - 24 |

## Miniature Angle Beam Transducers—Type MSW-QC (Quick Change)

| Freq. (MHz) | Element Ø mm | Element Ø in | Order Codes  |                  |              |                              |                            | Accessories | Freq. (MHz) | Element Ø mm | Element Ø in | Order Code   |                  |              |                              |           | Accessories |           |             |           |
|-------------|--------------|--------------|--------------|------------------|--------------|------------------------------|----------------------------|-------------|-------------|--------------|--------------|--------------|------------------|--------------|------------------------------|-----------|-------------|-----------|-------------|-----------|
|             |              |              | Gamma Series | Benchmark Series | Alpha Series | Standard Wedge (W = 118-340) |                            |             |             |              |              | Gamma Series | Benchmark Series | Alpha Series | Standard Wedge (W = 118-340) |           |             |           |             |           |
| 1.0         | 13           | .500         | 241-590      | 241-591          |              | W-210 30°                    | Cables BNC 118-140-012     | 6           | .250        |              |              | W-200 30°    | 124-591          | W-201 45°    | 118-140-022                  | W-202 60° | 134-591     | W-203 70° | 144-591     | W-204 90° |
|             |              |              |              |                  |              | W-211 45°                    |                            |             |             |              |              | W-212 60°    |                  | W-213 70°    |                              | W-214 90° |             |           |             |           |
|             |              |              |              |                  |              | W-220 30°                    |                            |             |             |              |              | W-221 45°    |                  | W-222 60°    |                              | W-223 70° |             | W-224 90° |             |           |
| 1.5         | 10           | .375         | 231-590      | 231-596          |              | W-210 30°                    | LEMO-1 118-140-022         | 10          | .375        |              |              | W-220 30°    | 135-591          | W-221 45°    | 118-300-740                  | W-222 60° | 145-591     | W-223 70° | 118-300-740 | W-224 90° |
|             |              |              |              |                  |              | W-211 45°                    |                            |             |             |              |              | W-212 60°    |                  | W-213 70°    |                              | W-214 90° |             |           |             |           |
|             |              |              |              |                  |              | W-220 30°                    |                            |             |             |              |              | W-221 45°    |                  | W-222 60°    |                              | W-223 70° |             | W-224 90° |             |           |
| 2.25        | 6            | .250         | 222-590      | 222-591          | 122-591      | W-210 30°                    | Wedge Couplant 118-300-740 | 6           | .250        |              |              | W-200 30°    | 245-591          | W-201 45°    | 118-140-012                  | W-202 60° | 125-591     | W-203 70° | 118-140-012 | W-204 90° |
|             |              |              |              |                  |              | W-211 45°                    |                            |             |             |              |              | W-212 60°    |                  | W-213 70°    |                              | W-214 90° |             |           |             |           |
|             |              |              |              |                  |              | W-220 30°                    |                            |             |             |              |              | W-221 45°    |                  | W-222 60°    |                              | W-223 70° |             | W-224 90° |             |           |
| 3.5         | 10           | .375         | 232-590      | 232-591          | 132-591      | W-210 30°                    | Wedge Couplant 118-300-740 | 10          | .375        |              |              | W-220 30°    | 235-591          | W-221 45°    | 118-140-022                  | W-222 60° | 135-591     | W-223 70° | 118-140-022 | W-224 90° |
|             |              |              |              |                  |              | W-211 45°                    |                            |             |             |              |              | W-212 60°    |                  | W-213 70°    |                              | W-214 90° |             |           |             |           |
|             |              |              |              |                  |              | W-220 30°                    |                            |             |             |              |              | W-221 45°    |                  | W-222 60°    |                              | W-223 70° |             | W-224 90° |             |           |
| 10          | 13           | .500         | 242-590      | 242-591          | 142-591      | W-210 30°                    | Wedge Couplant 118-300-740 | 13          | .500        |              |              | W-200 30°    | 245-591          | W-201 45°    | 118-300-740                  | W-202 60° | 145-591     | W-203 70° | 118-300-740 | W-204 90° |
|             |              |              |              |                  |              | W-211 45°                    |                            |             |             |              |              | W-212 60°    |                  | W-213 70°    |                              | W-214 90° |             |           |             |           |
|             |              |              |              |                  |              | W-220 30°                    |                            |             |             |              |              | W-221 45°    |                  | W-222 60°    |                              | W-223 70° |             | W-224 90° |             |           |
| 10          | 6            | .250         | 223-590      | 223-591          | 123-591      | W-210 30°                    | Wedge Couplant 118-300-740 | 6           | .250        |              |              | W-200 30°    | 226-590          | W-201 45°    | 118-140-012                  | W-202 60° | 125-591     | W-203 70° | 118-140-012 | W-204 90° |
|             |              |              |              |                  |              | W-211 45°                    |                            |             |             |              |              | W-212 60°    |                  | W-213 70°    |                              | W-214 90° |             |           |             |           |
|             |              |              |              |                  |              | W-220 30°                    |                            |             |             |              |              | W-221 45°    |                  | W-222 60°    |                              | W-223 70° |             | W-224 90° |             |           |
| 10          | 10           | .375         | 233-590      | 233-591          | 133-591      | W-210 30°                    | Wedge Couplant 118-300-740 | 10          | .375        |              |              | W-220 30°    | 236-590          | W-221 45°    | 118-140-022                  | W-222 60° | 135-591     | W-223 70° | 118-140-022 | W-224 90° |
|             |              |              |              |                  |              | W-211 45°                    |                            |             |             |              |              | W-212 60°    |                  | W-213 70°    |                              | W-214 90° |             |           |             |           |
|             |              |              |              |                  |              | W-220 30°                    |                            |             |             |              |              | W-221 45°    |                  | W-222 60°    |                              | W-223 70° |             | W-224 90° |             |           |
| 10          | 13           | .500         | 243-590      | 243-591          | 143-591      | W-210 30°                    | Wedge Couplant 118-300-740 | 13          | .500        |              |              | W-200 30°    | 246-590          | W-201 45°    | 118-300-740                  | W-202 60° | 145-591     | W-203 70° | 118-300-740 | W-204 90° |
|             |              |              |              |                  |              | W-211 45°                    |                            |             |             |              |              | W-212 60°    |                  | W-213 70°    |                              | W-214 90° |             |           |             |           |
|             |              |              |              |                  |              | W-220 30°                    |                            |             |             |              |              | W-221 45°    |                  | W-222 60°    |                              | W-223 70° |             | W-224 90° |             |           |

Note: Standard wedge angles are specified for carbon steel. Custom configurations are available by special order.