



# OLYMPUS®



## DC1–DC5 Dual Element Corrosion Transducers

### A Complete Corrosion Monitoring Toolbox for Pipeline and Tank Integrity

Preventative oil & gas pipeline and tank maintenance helps keep people safe and enables the flow of raw materials. As a leading NDT equipment manufacturer, our DC series (DC1–DC5) dual element transducers provide inspectors with a complete corrosion monitoring toolbox to support pipeline and tank inspection. These versatile, compact transducers are optimized for corrosion and thin materials and work with a wide variety of NDT instruments and ultrasonic inspection procedures.

All models provide a cleaner signal than single element transducers and offer less ring down than comparable models—helpful for resolving smaller defects, inspecting close to the surface, and differentiating between two indications.

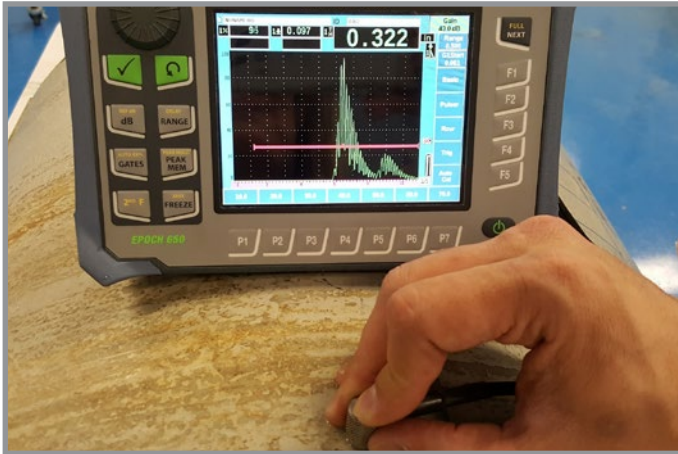
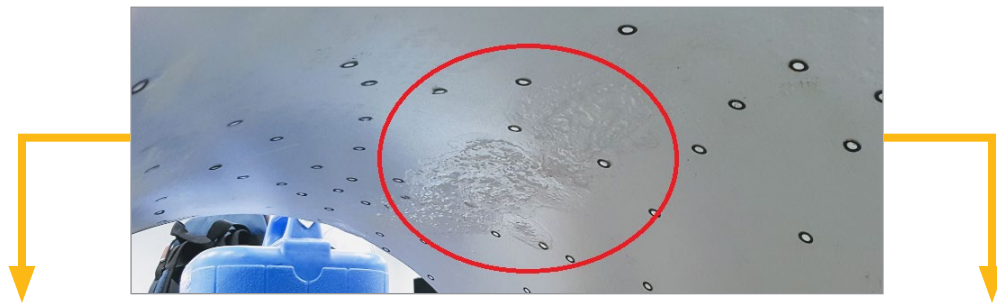
### DC1 and DC2 Transducers: Tough and Versatile

With a 7.5 MHz frequency and slight roof angle, DC1 and DC2 dual element transducers provide optimal near-surface resolution in the range of 0.30–2 in. (7.6–50.8 mm) in steel.

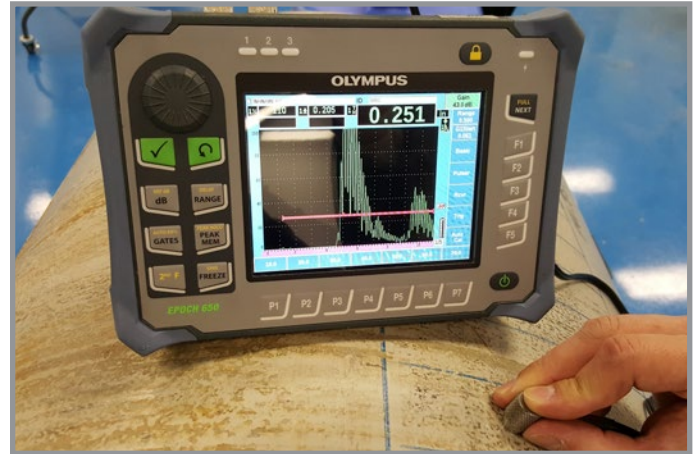
#### Key Benefits:

- Ideal for coverage of thin materials
- Excels at thickness measurement, corrosion mapping, and flaw sizing
- Available in standard (DC1) and thick-walled (DC2) housings
- Built to last even with frequent scrubbing due to thick-walled, wear-resistant housing (DC2)
- Effective on pipes as small as 1 in. (25.4 mm) OD
- Rated for elevated temperature pipe and tank inspections with a heat-resistant delay line up to 150 °C (300 °F)
- Fits into small spaces: low profile (18 mm high) and 0.455 in. (DC1)/0.56 in. tip diameter (DC2)
- Knurled case is easy to grip
- Broad compatibility with unmolded BNC or LEMO connectors
- Improved spring strain relief (BNC connector only) to minimize cable damage





Nominal wall thickness: 0.325 in. (8.255 mm)—No corrosion



Remaining wall thickness: 0.251 in. (6.375 mm)—Corrosion

## DC3–DC5 Transducers: Inspect Thinner Materials and Go Beyond Corrosion Monitoring

The DC3, DC4, and DC5 dual element transducers expand your inspection capabilities. Inspect thinner material—ranging from 0–1.5 in. (0–38.1 mm) depths—thanks to 5 MHz frequencies and optimal element sizes/placement. The DC3 model's high-angle design takes the series beyond corrosion monitoring and thickness measurement to include thin-wall pipe weld inspection and other applications.

### DC3 Transducer: Fast Pipe Weld Testing and Thin-Wall Material Inspections

Built with a 5 MHz frequency and high-angle longitudinal wave, the DC3 dual element transducer provides optimal near-surface resolution for very thin materials ranging from 0–0.6 in. (0–15.24 mm).

#### Key Benefits:

- High-angle longitudinal wave: inspect thin material beyond corrosion monitoring
- Fast, reliable UT weld inspection tool for thin-wall pipes
- Can perform a high-speed manual weld inspection similar to comparable models
- Dual piezocomposite elements for increased energy
- Acoustic noise barrier for pitch-catch technology prevents crosstalk
- Fits into small spaces to inspect hard-to-access areas (e.g., boiler tubes)
- Integrated wedges make the transducer compact
- Microdot connectors work with various NDT instruments

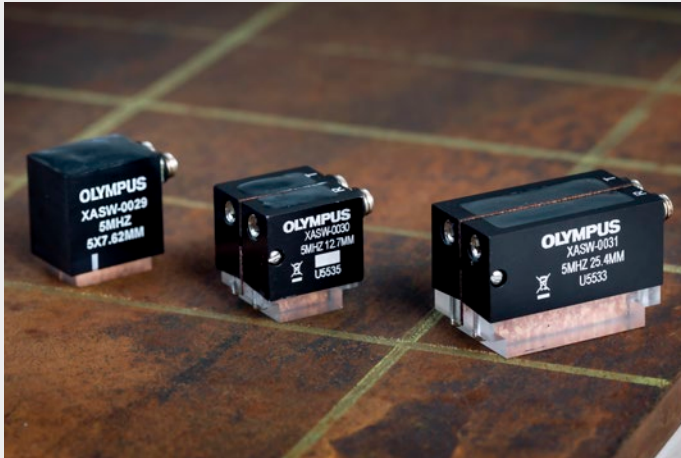
#### Applications include:

- High-speed manual inspection of thin-wall pipelines, boiler tubes, and other thin components
- Planar flaw analysis and sizing
- Distinguishing weld root geometry from indications
- Pipeline long seam and girth weld inspection
- Boiler tube welds
- Pharmaceutical piping
- Heat exchanger tubing
- Thin-walled components in the nuclear industry



## DC4 and DC5 Transducers: Optimized to Detect Flaws and Measure Thickness in Thin Materials

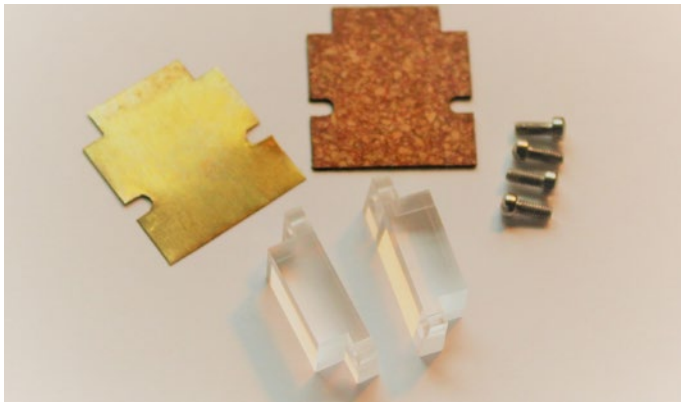
Manufactured at 5 MHz with slightly angled elements and a 0-degree longitudinal wave, the DC4 and DC5 dual element transducers offer enhanced thickness measurement and flaw detection in thin materials ranging from 0–1.5 in. (0–38.1 mm).



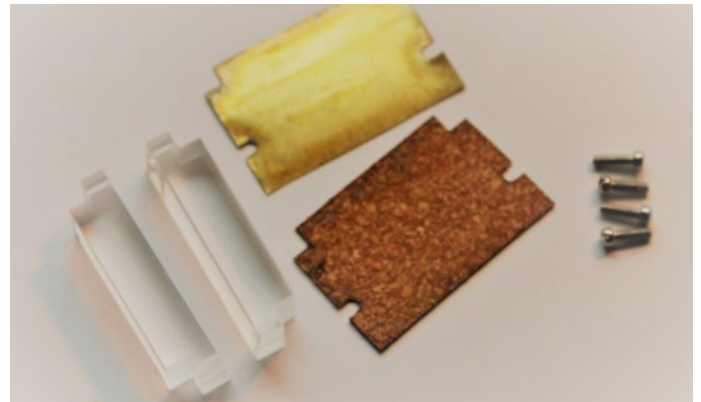
### Key Benefits:

- Optimal near-surface resolution for thin materials
- Slight roof angle improves flaw detection and thickness measurement
- Replaceable wedges lengthen the transducer's useful life
- Acoustic noise barrier for pitch-catch technology prevents crosstalk
- Microdot connectors work with various NDT instruments

## Replacement Wedge Kits for DC4 and DC5 Transducers



P/N 10-009381-00  
SDC4-0L replaceable wedge kit



P/N 10-009382-00  
SDC5-0L replaceable wedge kit



## Mix and Match Transducers for Specific Inspection Criteria

Depending on your application, any one or a combination of these five transducers offers improved corrosion monitoring and defect sizing. As field inspections change, you can benefit from having the complete set with a total combined thickness range of 0–2 in. (0–50.8 mm), as well as an extra pipe weld inspection tool (DC3 model).

Pairing with the EPOCH™ 650 or 6LT flaw detectors or the 38DL PLUS™ thickness gauge\* enables accurate, efficient corrosion mapping for evaluation of nominal wall thickness, pitting, and flaw type/size.

\*Due to roof angles, manual V-Path Correction may be required for DC1, DC2, DC4, and DC5 transducers.

### DC1–DC5 Transducer Specifications and Dimensions

Model	Transducer PN.	Vendor Name	Part Description	Freq/ MHz	Nominal Element Size		Cables/Connectors	External Dimensions			
					inches	mm		Diameter (mm)	Height (mm)	Length (Inches)	Width (Inches)
DC1	Q3300872	XASW-0006	7.5DS-0.375-0LW-DC1-P-1-RPL	7.5	0.375	9.52	2X Right Potted/LEMO 00 Connectors	0.58 (14.73)	0.73 (18.54)	-	-
DC1	Q3300873	XASW-0009	7.5DS-0.375-0LW-DC1-P-1-RP	7.5	0.375	9.52	2X Right Potted/BNC Connectors	0.58 (14.73)	0.73 (18.54)	-	-
DC2	Q3300945	XASW-0010	7.5DS-0.375-0LW-DC2-P-1-RP	7.5	0.375	9.52	2X Right Potted/BNC Connectors	0.58 (14.73)	0.73 (18.54)	-	-
DC2	Q3301219	XASW-0012	7.5DS-0.375-0LW-DC2-P-1-RPL	7.5	0.375	9.52	2X Right Potted/LEMO 00 Connectors	0.58 (14.73)	0.73 (18.54)	-	-
DC3	Q3301828	XASW-0029	5DS-5.08X7.62-DC3-RM	5	0.2 × 0.3	5.08 × 7.62	2X Microdot Connectors	-	0.88 (22.2)	0.77 (19.4)	0.60 (15.1)
DC4	Q3301829	XASW-0030	5DS-12.7X12.7-0LW-DC4-RM-RW	5	0.5 × 0.5	12.7 × 12.7	2X Microdot Connectors	-	0.84 (21.3)	0.76 (19.2)	0.78 (19.8)
DC5	Q3301830	XASW-0031	5DS-12.7X25.4-0LW-DC5-RM-RW	5	0.5 × 1	12.7 × 25.4	2X Microdot Connectors	-	0.90 (23.0)	1.38 (34.9)	0.78 (19.8)
Wedge Kit	Q7000475	10-009381-00	SDC4-0L Replaceable Wedge Kit	-	-	-	-	-	-	-	-
Wedge Kit	Q7000476	10-009382-00	SDC5-0L Replaceable Wedge Kit	-	-	-	-	-	-	-	-

**OLYMPUS SCIENTIFIC SOLUTIONS AMERICAS CORP.**  
is certified to ISO 9001, ISO 14001, and OHSAS 18001.

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