

PHASED ARRAY ULTRASONIC TRANSDUCERS

STANDARD PRODUCT CATALOG



GENERAL-PURPOSE LINEAR
WELD INSPECTION
SMALL FOOTPRINT
LOW-PROFILE
TOFD
CORROSION
FLEXIBLE ARRAY
WHEELARRAY™
IMMERSION LINEAR
IMMERSION ANNULAR
CONTACT MEMBRANE TFM
ARRAYS
MATRIX ARRAY
DUAL MATRIX ARRAY
HIGH-TEMP LINEAR
HIGH-TEMP DUAL LINEAR
CUSTOM SOLUTIONS

TABLE OF CONTENTS

3	Why Choose Phased Array
4	Understanding Phased Array
5	Part Number Guidelines
6-7	General-Purpose Linear
8-9	Weld Inspection
10	Small Footprint
11- 12	Low-Profile
13	TOFD
14	Corrosion
15	Flexible Array
16	WheelArray™
17	Immersion Linear
18	Immersion Annular
19	Contact Membrane
20	TFM Array
21	Matrix Array
22	Dual Matrix Array
23	High-Temp Linear
24	High-Temp Dual Linear
25	Custom Solutions Capabilities
26-27	One-Stop PAUT Shop





ELEVATING INDUSTRY STANDARDS WITH EDDYFI TECHNOLOGIES

YOUR COMPLETE PHASED ARRAY ULTRASONIC TESTING SOLUTION PROVIDER

Eddyfi Technologies is committed to revolutionizing non-destructive testing (NDT) across various industries like aerospace, oil and gas, mining, and power generation. Our focus is on providing a comprehensive phased array ultrasonic testing (PAUT) solution, tailored to precise application needs, ensuring the safety and integrity of critical components and assets. Our range of cutting-edge instruments, software, scanners, crawlers, and advanced probes, collectively form a dynamic inspection solution. With a commitment to transforming NDT practices, our specialized phased array ultrasonic transducers are meticulously crafted to address specific application requirements and emphasize the safety and integrity of high-value assets everywhere.

WHY CHOOSE PHASED ARRAY TECHNOLOGY

Phased array technology significantly enhances inspection productivity and the Probability of Detection (PoD) for anomalies within the test part. It enables precise 2D or 3D imaging, aiding informed decisions about a component's fitness-for-service. Our technology boasts:

LINEAR SCANNING

The beam is electronically translated by alternately firing a given number of elements of a phased array transducer. Only one angle is introduced but is introduced multiple times throughout the length of the array.

BEAM STEERING

By alternating the time sequence of the pulses, the direction of the transmitted beam can be varied to any desired scan angle. This allows for multiple angle inspections, using a single transducer.

BEAM FOCUSING

The beam is electronically focused by applying symmetrical delay laws to the different elements of a transducer. This technique can be combined with beam steering to produce both angled and focused beams.

UNDERSTANDING PHASED ARRAY TRANSDUCERS

Phased array transducers consist of multiple piezoelectric elements that can be individually pulsed at distinct times. This unique capability accurately focuses or steers the ultrasonic beam in specific directions, enabling meticulous production of varying angles, focal distances, and focal spot sizes of beams.

PRECISE PROBES FOR SPECIFIC SCENARIOS

Our technical expertise allows us to offer custom probes tailored for specific applications, including assessing complex composite materials in the aerospace sector, addressing high-temperature hydrogen attack, or other industry challenges. Partner with us for a complete phased array ultrasonic testing solution engineered with unmatched speed and precision.

SEAMLESS QUOTING VIA EDDYFI'S ESTORE

Elevate your NDT capabilities instantly through our user-friendly Eddyfi eStore. Scan the QR code or visit store.eddyfi.com for swift, personalized quotes and secure the perfect phased array ultrasonic testing solution for your unique requirements.

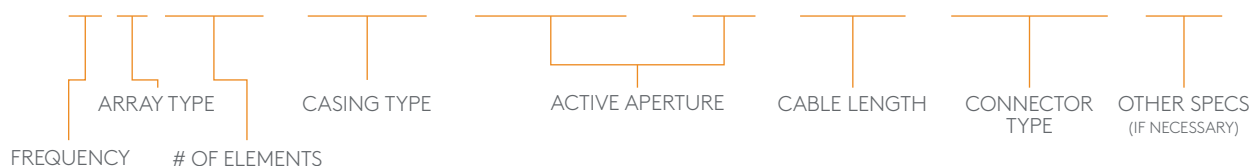
Join the league of industry professionals who have revolutionized their NDT approach with Eddyfi Technologies' complete PAUT package to stay Beyond Current.

eStore



ARRAY ACRONYM GUIDELINES

5L128-A12-38.4X10-2.5-IPEX-xx



FREQUENCY	ARRAY TYPE	# OF ELEMENTS	CASING TYPE	ACTIVE APERTURE
In MHz	L = Linear AN = Annular M = Matrix DL = Dual Linear DM = Dual Matrix CC = Concave in azimuth (with radius in mm)	#Elements - Primary Axis #Elements - Secondary Axis	A = Angle Beam with external wedge NW = Near-Wall AWS - AWS Inspection BS = Beam Straight HW = High-Wall I = Immersion CS = Corrosion Small CL = Corrosion Large FLEX = Flexible	In mm (Primary Axis) = (#Elements*Pitch) In mm (Secondary Axis) = (#Elements*Pitch)
CABLE LENGTH	CONNECTOR TYPE	OTHER SPECS		
In meters	IPEX = IPEX Easy-Latch ZPAC = Zetec Phased Array Connector HYP = Hypertronics SCRW = IPEX with screws	If necessary, may include: Cable Type (BRAID; etc.) Customization Etc.		

WEDGE ACRONYM GUIDELINES

WSA31-55S-AOD2.25-IHC-xx



WEDGE TYPE	REFRACTED ANGLE	WAVE TYPE	CURVATURE TYPE	OPTIONS	OTHER SPECS
WS + ARRAY CASING	0 = 0° 55 = 55° 60 = 60°	S = Shear Wave L = Longitudinal Wave	FLAT = Flat Surface AOD = Axial Outside Diameter (circumferential scan) COD = Circumferential Outside Diameter (Axial Scan)	IH = Integral Irrigation & Scanner Holes IHC = Integral Irrigation, Scanner Holes, & Carbide Wear Pins IHC RING	If Necessary

GENERAL-PURPOSE LINEAR

General-purpose linear arrays are versatile probes that optimize a wide range of applications, including weld inspection, tube and pipe inspection, turbine blades, rails, pressure vessels, and many more. Varying in frequency, number of elements, and element pitch and elevation, the wide variety available provides many options when choosing an array for your application. Custom options are available upon request.



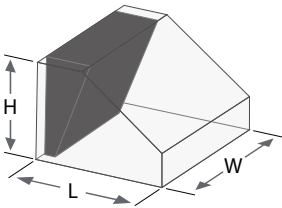
PHASED ARRAYS

CASE	PART NUMBER	FREQUENCY	ELEMENTS	APERTURE		PITCH		ELEVATION		CABLE LENGTH
A1	2.25L16-A1-12X12-2.5-IPEX	2.25	16	0.47	12	0.030	0.75	0.47	12	2.5M (8.2 ft.)
	5L16-A1-9.6X10-2.5-IPEX	5	16	0.38	9.6	0.024	0.60	0.39	10	2.5M (8.2 ft.)
	10L32-A1-10X7-2.5-IPEX	10	32	0.39	10	0.012	0.31	0.28	7	2.5M (8.2 ft.)
A10	2.25L8-A10-9.6X10-2.5-IPEX	2.25	8	0.38	9.6	0.047	1.20	0.39	10	2.5M (8.2 ft.)
	3.5L8-A10-9.6X10-2.5-IPEX	3.5	8	0.38	9.6	0.047	1.20	0.39	10	2.5M (8.2 ft.)
	5L16-A10-9.6X10-2.5-IPEX	5	16	0.38	9.6	0.024	0.60	0.39	10	2.5M (8.2 ft.)
	5L32-A10-9.6X10-2.5-IPEX	5	32	0.38	9.6	0.012	0.30	0.39	10	2.5M (8.2 ft.)
	7.5L32-A10-9.6X10-2.5-IPEX	7.5	32	0.38	9.6	0.012	0.30	0.39	10	2.5M (8.2 ft.)
	10L32-A10-10X7-2.5-IPEX	10	32	0.39	10	0.012	0.31	0.28	7	2.5M (8.2 ft.)
A11	2.25L32-A11-19.2X10-2.5-IPEX	2.25	32	0.75	19.2	0.024	0.60	0.39	10	3.0M (9.2 ft.)
	5L16-A11-16X10-2.5-IPEX	5	16	0.63	16	0.040	1.00	0.39	10	3.0M (9.2 ft.)
	5L32-A11-19.2X10-2.5-IPEX	5	32	0.75	19.2	0.024	0.60	0.39	10	2.5M (8.2 ft.)
	5L64-A11-19.2X10-2.5-IPEX	5	64	0.75	19.2	0.012	0.30	0.39	10	2.5M (8.2 ft.)
	10L64-A11-19.2X10-2.5-IPEX	10	64	0.75	19.2	0.012	0.30	0.39	10	2.5M (8.2 ft.)
	15L64-A11-19.2X10-2.5-IPEX	15	64	0.75	19.2	0.012	0.30	0.39	10	2.5M (8.2 ft.)
A12	2.25L64-A12-48X10-2.5-IPEX	2.25	64	1.89	48	0.024	0.60	0.39	10	2.5M (8.2 ft.)
	2.25L64-A12-38.4X12-2.5-IPEX	2.25	64	1.51	38.4	0.030	0.75	0.47	12	2.5M (8.2 ft.)
	3.5L64-A12-38.4X10-2.5-IPEX	3.5	64	1.51	38.4	0.024	0.60	0.39	10	2.5M (8.2 ft.)
	5L64-A12-38.4X10-2.5-IPEX	5	64	1.51	38.4	0.024	0.60	0.39	10	2.5M (8.2 ft.)
	5L128-A12-38.4X10-2.5-IPEX	5	128	1.51	38.4	0.012	0.30	0.39	10	2.5M (8.2 ft.)
	7.5L64-A12-38.4X10-2.5-IPEX	7.5	64	1.51	38.4	0.024	0.60	0.39	10	2.5M (8.2 ft.)
A2	10L64-A12-38.4X10-2.5-IPEX	10	64	1.51	38.4	0.024	0.60	0.39	10	2.5M (8.2 ft.)
	5L64-A2-38.4X10-2.5-IPEX	5	64	1.51	38.4	0.024	0.60	0.39	10	2.5M (8.2 ft.)
	2.25L64-A2-48X12-3.5-IPEX	2.25	64	1.89	48	0.030	0.75	0.47	12	3.5M (9.8 ft.)
A3	10L64-A2-38.4X7-2.5-IPEX	10	64	1.51	38.4	0.024	0.60	0.28	7	2.5M (8.2 ft.)
	3.5L16-A3-25.6X16-3.5-IPEX	3.5	16	1.00	25.6	0.063	1.60	0.63	16	3.5M (9.8 ft.)
	5L16-A3-19.2X12-2.5-IPEX	5	16	0.75	19.2	0.047	1.20	0.47	12	2.5M (8.2 ft.)
				in.	mm	in.	mm	in.	mm	

Custom cable lengths available upon request

WEDGES

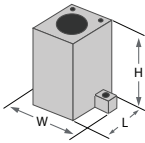
WEDGE TYPE	DESCRIPTION	PART NUMBER	DIMENSIONS					
			LENGTH		WIDTH		HEIGHT	
A1	Standard wedge for A1 phased array probe - Designed for linear scanning at 0 degree using LW - 0deg LW nominal angle - 20mm delay	WSA1-0L-FLAT-20mm	1.14 in.	29 mm	1.18 in.	30 mm	0.79 in.	20 mm
	Standard wedge for A1 phased array probe - Designed for azimuthal scanning from 40 to 70 degree using SW - 60deg SW nominal angle - Irrigation, probe holder fixtures & carbides	WSA1-60S-FLAT-IHC	1.20 in.	30.5 mm	1.58 in.	40.1 mm	0.64 in.	16.3 mm
A2	Standard wedge for A2 phased array probe - Designed for linear scanning at 0 degree using LW - 0deg LW nominal angle - 20mm delay	WSA2-0L-FLAT-20mm	2.56 in.	65 mm	1.18 in.	30 mm	0.79 in.	20 mm
	Standard wedge for A2 phased array probe - Designed for azimuthal scanning from 40 to 70 degree using SW - 55deg SW nominal angle - Irrigation, probe holder fixtures & carbides	WSA2-55S-FLAT-IHC	2.70 in.	68.6 mm	1.58 in.	40.1 mm	1.70 in.	43.2 mm
A10	Standard wedge for A10 phased array probe - Designed for linear scanning at 0 degree using LW - 0deg LW nominal angle - 20mm delay	WSA10-0L-FLAT-20mm	0.98 in.	24.9 mm	0.91 in.	23.1 mm	0.79 in.	20 mm
	Standard wedge for A10 phased array probe - Designed for azimuthal scanning from 40 to 70 degree using SW - 55deg SW nominal angle - Irrigation, probe holder fixtures	WSA10-55S-FLAT-IH	0.91 in.	23.1 mm	0.91 in.	23.1 mm	0.56 in.	16.5 mm
	Standard wedge for A10 phased array probe - Designed for azimuthal scanning from 40 to 70 degree using SW - 55deg SW nominal angle - Irrigation, probe holder fixtures & carbides	WSA10-55S-FLAT-IHC	Contact for dimensions					
	IHC Ring, ported wedge ring with wear pins	WSA10---IHC RING	Contact for dimensions					
A11	Standard wedge for A11 phased array probe - Designed for linear scanning at 0 degree using LW - 0deg LW nominal angle - 20mm delay	WSA11-0L-FLAT-20mm	1.38 in.	35.1 mm	0.91 in.	23.1 mm	0.91 in.	23.1 mm
	Standard wedge for A11 phased array probe - Designed for azimuthal scanning from 40 to 70 degree using SW - 55deg SW nominal angle - Irrigation, probe holder fixtures	WSA11-55S-FLAT-IH	1.63 in.	41.4 mm	0.91 in.	23.1 mm	1.13 in.	28.7 mm
	Standard wedge for A11 phased array probe - Designed for azimuthal scanning from 40 to 70 degree using SW - 55deg SW nominal angle - Irrigation, probe holder fixtures	WSA11-55S-FLAT-IHC	Contact for dimensions					
	IHC Ring, ported wedge ring with wear pins	WSA11---IHC RING	Contact for dimensions					
A12	Standard wedge for A12 phased array probe - Designed for linear scanning at 0 degree using LW - 0deg LW nominal angle - 20mm delay	WSA12-0L-FLAT-20mm	2.28 in.	57.9 mm	0.91 in.	23.1 mm	0.79 in.	20 mm
	Standard wedge for A12 phased array probe - Designed for azimuthal scanning from 40 to 70 degree using SW - 55deg SW nominal angle - Irrigation, probe holder fixtures	WSA12-55S-FLAT-IH	2.88 in.	73.2 mm	0.91 in.	23.1 mm	1.76 in.	44.7 mm
	Standard wedge for A12 phased array probe - Designed for azimuthal scanning from 40 to 70 degree using SW - 55deg SW nominal angle - Irrigation, probe holder fixtures & carbides	WSA12-55S-FLAT-IHC	Contact for dimensions					
	IHC Ring, ported wedge ring with wear pins	WSA12---IHC RING	Contact for dimensions					



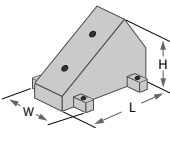
CASE DIMENSIONS

CASE TYPE	CASE DIMENSIONS					
	LENGTH		WIDTH		HEIGHT	
A1	0.67 in.	17 mm	1.09 in.	27.7 mm	0.99 in.	25.1 mm
A2	2.09 in.	53.1 mm	1.14 in.	29 mm	1.36 in.	34.5 mm
A10	0.91 in.	23.1 mm	0.63 in.	16 mm	0.79 in.	20.1 mm
A11	0.98 in.	24.9 mm	0.91 in.	23.1 mm	0.79 in.	20.1 mm
A12	1.77 in.	45 mm	0.91 in.	23.1 mm	0.79 in.	20.1 mm

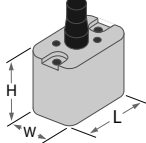
A1



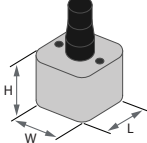
A2



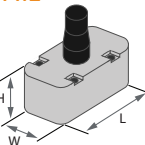
A10



A11

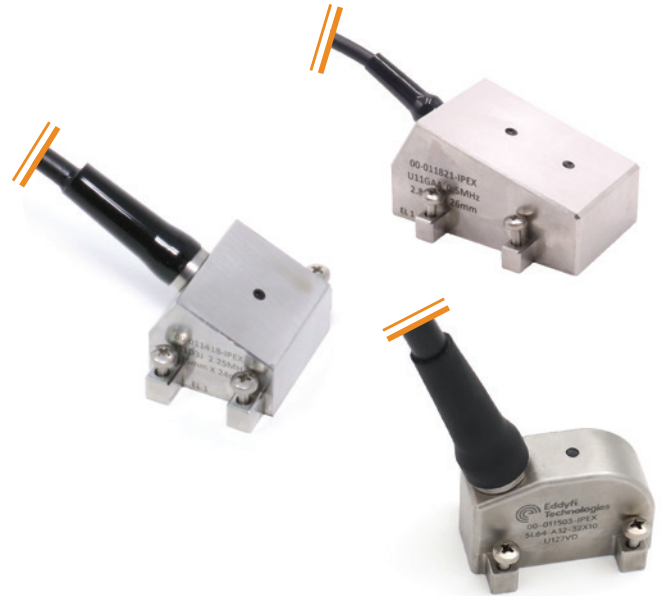


A12



WELD INSPECTION

Weld inspection arrays paired with the right phased array wedge are perfect for conducting inspections on various weld, plate, and forging applications. A selection of options for arrays and wedges offers the ability to meet and optimize inspection requirements. Custom array and wedge options are available upon request.



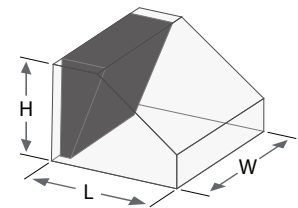
PHASED ARRAYS

CASE	PART NUMBER	FREQUENCY	ELEMENTS	APERTURE		PITCH		ELEVATION		CABLE LENGTH
A14	5L60-A14-60X10-2.5-IPEX	5	60	2.36	60	0.040	1.00	0.38	10	2.5M (8.2 ft.)
	7.5L60-A14-60X10-2.5-IPEX	7.5	60	2.36	60	0.040	1.00	0.38	10	2.5M (8.2 ft.)
	2.25L60-PWZ1-60X10-2.5-IPEX	2.25	60	2.36	60	0.040	1.00	0.38	10	2.5M (8.2 ft.)
PWZ1	5L60-PWZ1-60X10-2.5-IPEX	5	60	2.36	60	0.040	1.00	0.38	10	2.5M (8.2 ft.)
	7.5L60-PWZ1-60X10-2.5-IPEX	7.5	60	2.36	60	0.040	1.00	0.38	10	2.5M (8.2 ft.)
	0.5L16-A4-44.8X26-5-IPEX	0.5	16	1.76	44.8	0.110	2.80	1.02	26	5M (16.4 ft.)
A4	1.5L16-A4-44.8X26-2.5-IPEX	1.5	16	1.76	44.8	0.110	2.80	1.02	26	2.5M (8.2 ft.)
	2.25L16-A4-32X32-2.5-IPEX	2.25	16	1.25	32	0.080	2.00	1.26	32	2.5M (8.2 ft.)
	2.25L32-A5-24X24-2.5-IPEX	2.25	32	0.94	24	0.030	0.75	0.94	24	2.5M (8.2 ft.)
A5	5L32-A5-19.2X20-2.5-IPEX	5	32	0.75	19.2	0.024	0.60	0.76	20	2.5M (8.2 ft.)
	5L32-A31-19.2X10-2.5-IPEX	5	32	0.75	19.2	0.024	0.60	0.39	10	2.5M (8.2 ft.)
	7.5L32-A31-19.2X10-2.5-IPEX	7.5	32	0.75	19.2	0.024	0.60	0.39	10	2.5M (8.2 ft.)
A31	10L32-A31-19.2X10-2.5-IPEX	10	32	0.75	19.2	0.024	0.60	0.39	10	2.5M (8.2 ft.)
	5L32-A32-32X10-2.5-IPEX	5	32	1.25	32	0.040	1.00	0.39	10	2.5M (8.2 ft.)
	5L64-A32-32X10-2.5-IPEX	5	64	1.25	32	0.020	0.50	0.39	10	2.5M (8.2 ft.)
A32	10L64-A32-32X10-2.5-IPEX	10	64	1.25	32	0.020	0.50	0.39	10	2.5M (8.2 ft.)
	2.25L16-AWS-16X16-2.5-IPEX	2.25	16	0.63	16	0.040	1.00	0.63	16	2.5M (8.2 ft.)
				in.	mm	in.	mm	in.	mm	

Custom cable lengths available upon request

WEDGES

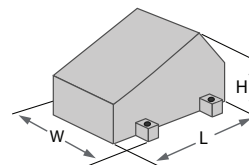
WEDGE TYPE	DESCRIPTION	PART NUMBER	DIMENSIONS					
			LENGTH		WIDTH		HEIGHT	
A4	Standard wedge for A4 phased array probe - Designed for azimuthal scanning from 40 to 70 degree using SW - 55deg SW nominal angle - Irrigation, probe holder fixtures	WSA4-55S-FLAT-IH	3.39 in.	86.1 mm	1.85 in.	47 mm	1.77 in.	45 mm
A5	Standard wedge for A5 phased array probe - Designed for azimuthal scanning from 40 to 70 degree using SW - 55deg SW nominal angle - Irrigation, probe holder fixtures	WSA5-55S-FLAT-IH	1.56 in.	39.6 mm	1.71 in.	43.4 mm	0.63 in.	16 mm
A31	Standard wedge for A31 phased array probe - Designed for azimuthal scanning from 40 to 70 degree using SW - 55deg SW nominal angle - Irrigation, probe holder fixtures	WSA31-55S-FLAT-IH	1.91 in.	48.5 mm	1.18 in.	30 mm	1.26 in.	32 mm
	Standard wedge for A31 phased array probe - Designed for azimuthal scanning from 40 to 70 degree using SW - 55deg SW nominal angle - Irrigation, probe holder fixtures & carbides	WSA31-55S-FLAT-IHC	Contact for dimensions					
A32	Standard wedge for A32 phased array probe - Designed for azimuthal scanning from 40 to 70 degree using SW - 55deg SW nominal angle - Irrigation, probe holder fixtures	WSA32-55S-FLAT-IH	2.42 in.	61.5 mm	1.18 in.	30 mm	1.26 in.	32 mm
	Standard wedge for A32 phased array probe - Designed for azimuthal scanning from 40 to 70 degree using SW - 55deg SW nominal angle - Irrigation, probe holder fixtures & carbides	WSA32-55S-FLAT-IHC	Contact for dimensions					
A14	Standard wedge for A14 phased array probe - Designed for azimuthal scanning from 40 to 70 degree using SW - 55deg SW nominal angle	WSA14-55S-FLAT	Contact for dimensions					
	IHC Ring, ported wedge ring with wear pins	WSA14--IHC RING	Contact for dimensions					
PWZ1	Standard wedge for PWZ1 phased array probe - Designed for azimuthal scanning from 35 to 70 degree using SW - 50deg SW nominal angle - Irrigation, probe holders fixtures & carbides	WSPWZ1-50S-FLAT-IHC	3.23 in.	82 mm	1.5 in.	38.1 mm	1.73 in.	43.9 mm



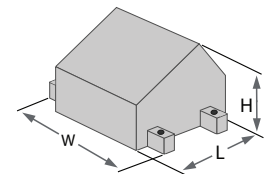
CASE DIMENSIONS

CASE TYPE	CASE DIMENSIONS					
	LENGTH		WIDTH		HEIGHT	
A4	2.24 in.	56.9 mm	1.81 in.	46 mm	1.18 in.	30 mm
A5	1.14 in.	29 mm	1.69 in.	42.9 mm	0.94 in.	23.9 mm
AWS	1.26 in.	32 mm	0.80 in.	20.3 mm	0.75 in.	19 mm
A31	1.20 in.	30.5 mm	1.10 in.	27.9 mm	0.98 in.	24.9 mm
A32	1.58 in.	40.1 mm	1.10 in.	27.9 mm	1.0 in.	25.4 mm
A14	2.67 in.	67.8 mm	0.91 in.	23.1 mm	0.79 in.	9.9 mm
PWZ1	2.67 in.	67.8 mm	1.02 in.	25.9 mm	1.19 in.	30.2 mm

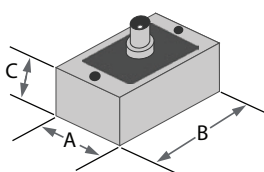
A4



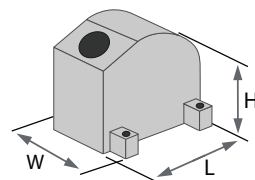
A5



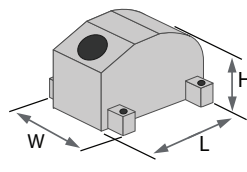
AWS



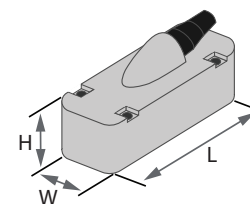
A31



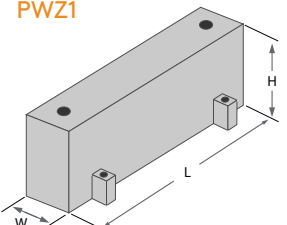
A32



A14



PWZ1



SMALL FOOTPRINT

Small footprint arrays are designed with small contact areas for inspections in tight or confined spaces. They can be used for a large variety of inspections, including welds, tubes and pipes, aircraft components, tanks and vessels, and more. Customizations to arrays and wedges can be specially ordered to further optimize your inspection requirements.

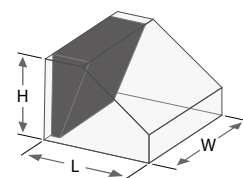


PHASED ARRAYS

CASE	PART NUMBER	FREQUENCY	ELEMENTS	APERTURE		PITCH		ELEVATION		CABLE LENGTH
0.25" MSWS	3.5L16-0.25MSWS-6.4X6.25-2.5-IPEX	3.5	16	0.25	6.4	0.016	0.40	0.25	6.25	2.5M (8.2 ft.)
	5L16-0.25MSWS-6.4X6.25-2.5-IPEX	5	16	0.25	6.4	0.016	0.40	0.25	6.25	2.5M (8.2 ft.)
	7.5L16-0.25MSWS-6.4X6.25-2.5-IPEX	7.5	16	0.25	6.4	0.016	0.40	0.25	6.25	2.5M (8.2 ft.)
	10L16-0.25MSWS-6.4X6.25-2.5-IPEX	10	16	0.25	6.4	0.016	0.40	0.25	6.25	2.5M (8.2 ft.)
0.5" MSWS	2.25L32-0.5MSWS-12.8X12.7-2.5-IPEX	2.25	32	0.50	12.8	0.016	0.40	0.50	12.7	2.5M (8.2 ft.)
	3.5L32-0.5MSWS-12.8X12.7-2.5-IPEX	3.5	32	0.50	12.8	0.016	0.40	0.50	12.7	2.5M (8.2 ft.)
	5L32-0.5MSWS-12.8X12.7-2.5-IPEX	5	32	0.50	12.8	0.016	0.40	0.50	12.7	2.5M (8.2 ft.)
	10L32-0.5MSWS-12.8X12.7-2.5-IPEX	10	32	0.50	12.8	0.016	0.40	0.50	12.7	2.5M (8.2 ft.)
A0	5L16-A0-6.4X6.25-2.5-IPEX	5	16	0.25	6.4	0.016	0.40	0.25	6.25	2.5M (8.2 ft.)
	10L16-A0-6.4X6.4-2.5-IPEX	10	16	0.25	6.4	0.016	0.40	0.25	6.4	2.5M (8.2 ft.)
A00	10L16-A00-5X5-2.5-IPEX	10	16	0.20	5	0.012	0.31	0.20	5	2.5M (8.2 ft.)
				in.	mm	in.	mm	in.	mm	

WEDGES

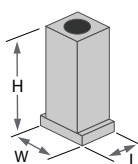
WEDGE TYPE	DESCRIPTION	PART NUMBER	DIMENSIONS		
			LENGTH	WIDTH	HEIGHT
0.25" MSWS	Standard wedge for 0.25MSWS phased array probe - Designed for azimuthal scanning from 40 to 70 degree using SW - 55deg SW nominal angle	WS0.25MSWS-55S-FLAT	0.75 in. 19 mm	0.70 in. 17.8 mm	0.38 in. 9.7 mm
	Standard wedge for 0.25MSWS phased array probe - Designed for azimuthal scanning from 40 to 70 degree using LW - 55deg LW nominal angle	WS0.25MSWS-55L-FLAT	0.58 in. 14.7 mm	0.70 in. 17.8 mm	0.28 in. 7.1 mm
0.5" MSWS	Standard wedge for 0.5MSWS phased array probe - Designed for azimuthal scanning from 40 to 70 degree using SW - 55deg SW nominal angle	WS0.5MSWS-55S-FLAT	1.20 in. 30.5 mm	0.95 in. 24.1 mm	0.70 in. 17.8 mm
	Standard wedge for 0.5MSWS phased array probe - Designed for azimuthal scanning from 40 to 70 degree using LW - 55deg LW nominal angle	W0.5MSWS-55L-FLAT	0.81 in. 20.6 mm	0.95 in. 24.1 mm	0.35 in. 8.9 mm
A00	Standard wedge for A00 phased array probe - Designed for azimuthal scanning from 35 to 60 degree using SW - 45deg SW nominal angle	WSA00-45S-FLAT	0.83 in. 21.1 mm	0.55 in. 14 mm	0.47 in. 11.9 mm
	Standard wedge for A00 phased array probe - Designed for azimuthal scanning from 40 to 70 degree using SW - 60deg SW nominal angle	WSA00-60S-FLAT	0.83 in. 21.1 mm	0.55 in. 14 mm	0.51 in. 13 mm



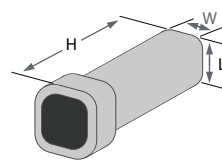
CASE DIMENSIONS

CASE TYPE	CASE DIMENSIONS		
	LENGTH	WIDTH	HEIGHT
A0	0.41 in. 10.3 mm	0.5 in. 12.6 mm	0.91 in. 23.1 mm
A00	0.31 in. 7.9 mm	0.31 in. 7.9 mm	0.91 in. 23.1 mm
0.25 MSWS	0.5 in. 12.7 mm	0.37 in. 9.4 mm	0.5 in. 12.7 mm
0.5 MSWS	0.76 in. 19.3 mm	0.61 in. 15.5 mm	0.75 in. 19 mm

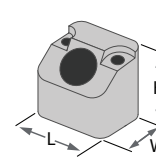
A0



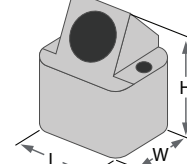
A00



0.25" MSWS



0.5" MSWS



Custom cable lengths available upon request

LOW-PROFILE

Low-profile arrays are designed to inspect small-diameter or thin-walled pipes for flaws and defects. A15 and A25 cases are also useful for applications with low clearance at the inspection area. Low-profile wedges optimize the arrays for small-diameter weld inspection. Custom low-profile arrays and wedges can be ordered upon request.

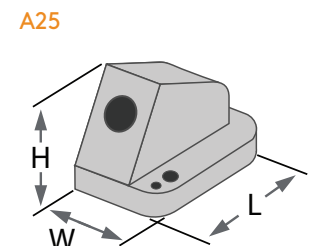
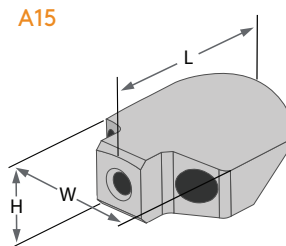


PHASED ARRAYS

CASE	PART NUMBER	FREQUENCY	ELEMENTS	APERTURE		PITCH		ELEVATION		CABLE LENGTH
A15	5L16-A15-8X10-2.5-IPEX	5	16	0.31	8	0.020	0.50	0.38	10	2.5M (8.2 ft.)
	7.5L16-A15-8X10-2.5-IPEX	7.5	16	0.31	8	0.020	0.50	0.38	10	2.5M (8.2 ft.)
	7.5L32-A15-8X10-2.5-IPEX	7.5	32	0.31	8	0.010	0.25	0.38	10	2.5M (8.2 ft.)
	10L16-A15-8X10-2.5-IPEX	10	16	0.31	8	0.020	0.50	0.38	10	2.5M (8.2 ft.)
	10L32-A15-8X10-2.5-IPEX	10	32	0.31	8	0.010	0.25	0.38	10	2.5M (8.2 ft.)
A25	3.5DL16-A25-12X5-2.5-IPEX	3.5	16	0.47	12	0.030	0.75	0.20	5	2.5M (8.2 ft.)
	5DL16-A25-12X5-2.5-IPEX	5	16	0.47	12	0.030	0.75	0.20	5	2.5M (8.2 ft.)
				in.	mm	in.	mm	in.	mm	

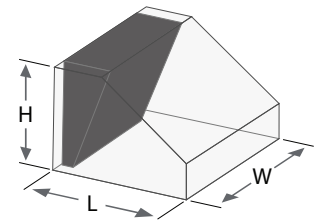
CASE DIMENSIONS

CASE TYPE	CASE DIMENSIONS					
	LENGTH		WIDTH		HEIGHT	
A15	1.03 in.	26.2 mm	0.86 in.	21.8 mm	0.39 in.	9.9 mm
A25	0.70 in.	17.8 mm	0.47 in.	11.9 mm	0.54 in.	13.7 mm



WEDGES

WEDGE TYPE	DESCRIPTION	PART NUMBER	DIMENSIONS		
			LENGTH	WIDTH	HEIGHT
A15	Standard wedge for A15 phased array probe - Designed for azimuthal scanning from 40 to 70 degree using SW - 60deg SW nominal angle - Irrigation, probe holder fixtures	WSA15-60S-FLAT-IH	0.72 in. 18.3 mm	0.86 in. 21.8 mm	0.44 in. 11.2 mm
	Standard wedge for A15 phased array probe - Designed for azimuthal scanning from 40 to 70 degree using SW - 60deg SW nominal angle - Contoured for NPS 2 (Ø60mm) - Axial flaw detection - Irrigation, probe holder fixtures	WSA15-60S-AOD2.375-IH	0.72 in. 18.3 mm	0.86 in. 21.8 mm	0.44 in. 11.2 mm
	Standard wedge for A15 phased array probe - Designed for azimuthal scanning from 40 to 70 degree using SW - 60deg SW nominal angle - Contoured for NPS 3 (Ø88.9mm) - Axial flaw detection - Irrigation, probe holder fixtures	WSA15-60S-AOD3.5-IH	0.72 in. 18.3 mm	0.86 in. 21.8 mm	0.44 in. 11.2 mm
	Standard wedge for A15 phased array probe - Designed for azimuthal scanning from 40 to 70 degree using SW - 60deg SW nominal angle - Contoured for NPS 4 (Ø114mm) - Axial flaw detection - Irrigation, probe holder fixtures	WSA15-60S-AOD4.5-IH	0.72 in. 18.3 mm	0.86 in. 21.8 mm	0.44 in. 11.2 mm
A25	22-Deg Inc, 3.80-Deg Roof, Flat (Only works with Eddyfi A25 arrays)	WSA25-22I---	Contact for dimensions		
	Wedge assembly for TRL inspection using A25 probes - Irrigation channels and probe holder fixtures - 22.0° wedge angle / 12.0° roof angle - For NPS 0.5 (0.840") - Circumferential flaw detection	WSA25-TRL-AOD0.5-IH-22.0W-12.0R			
	Wedge assembly for TRL inspection using A25 probes - Irrigation channels and probe holder fixtures - 22.0° wedge angle / 11.0° roof angle - For NPS 0.75 (1.050") - Circumferential flaw detection	WSA25-TRL-AOD0.75-IH-22.0W-11.0R			
	Wedge assembly for TRL inspection using A25 probes - Irrigation channels and probe holder fixtures - 22.0° wedge angle / 10.0° roof angle - For NPS 1 (1.315") - Circumferential flaw detection	WSA25-TRL-AOD1.0-IH-22.0W-10.0R			
	Wedge assembly for TRL inspection using A25 probes - Irrigation channels and probe holder fixtures - 22.0° wedge angle / 8.5° roof angle - For NPS 1.25 (1.660") - Circumferential flaw detection	WSA25-TRL-AOD1.25-IH-22.0W-8.5R			
	Wedge assembly for TRL inspection using A25 probes - Irrigation channels and probe holder fixtures - 22.0° wedge angle / 8.0° roof angle - For NPS 1.5 (1.900") - Circumferential flaw detection	WSA25-TRL-AOD1.5-IH-22.0W-8.0R			
	Wedge assembly for TRL inspection using A25 probes - Irrigation channels and probe holder fixtures - 22.0° wedge angle / 7.5° roof angle - For NPS 2.0 (2.375") - Circumferential flaw detection	WSA25-TRL-AOD2.0-IH-22.0W-7.5R			
	Wedge assembly for TRL inspection using A25 probes - Irrigation channels and probe holder fixtures - 22.0° wedge angle / 6.5° roof angle - For NPS 2.5 (2.875") - Circumferential flaw detection	WSA25-TRL-AOD2.5-IH-22.0W-6.5R			
	Wedge assembly for TRL inspection using A25 probes - Irrigation channels and probe holder fixtures - 22.0° wedge angle / 6.0° roof angle - For NPS 3.0 (3.500") - Circumferential flaw detection	WSA25-TRL-AOD3.0-IH-22.0W-6.0R			
	Wedge assembly for TRL inspection using A25 probes - Irrigation channels and probe holder fixtures - 22.0° wedge angle / 5.5° roof angle - For NPS 3.5 (4.000") - Circumferential flaw detection	WSA25-TRL-AOD3.5-IH-22.0W-5.5R			
	Wedge assembly for TRL inspection using A25 probes - Irrigation channels and probe holder fixtures - 22.0° wedge angle / 5.5° roof angle - For NPS 4.0 (4.500") - Circumferential flaw detection	WSA25-TRL-AOD4.0-IH-22.0W-5.5R			
	Wedge assembly for TRL inspection using A25 probes - Irrigation channels and probe holder fixtures - 22.0° wedge angle / 3.8° roof angle - Flat	WSA25-TRL-FLAT-IH-22.0W-3.8R			
	Wedge kit for TRL inspection using A25 probes - Irrigation channels and probe holder fixtures - flat wedge plus 9 curved wedges NPS 0.5 (0.840") to NPS 4.0 (4.500") - Circumferential flaw detection	WSA25-TRL-KIT-IH			



TOFD

Time-Of-Flight Diffraction (TOFD) is an inspection method used to determine the size of cracks in metallic welds. It requires highly-damped broadband transducers and wedges that generate refracted longitudinal waves (L-waves). Eddyfi Technologies TOFD transducers have state-of-the-art piezocomposite elements and a quick swap, screw-in wedge attachment.



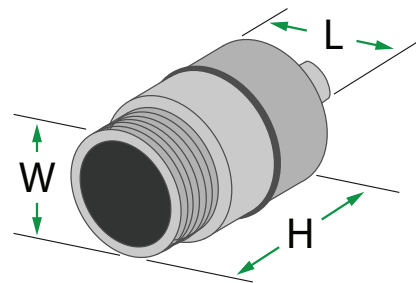
TOFD

PART NUMBER	FREQUENCY	ELEMENT DIAMETER	
TOFD2.25-6-ST1-LEMO00	2.25	0.25	6
TOFD5-3-ST1-LEMO00	5	0.125	3
TOFD5-6-ST1-LEMO00	5	0.25	6
TOFD7.5-3-ST1-LEMO00	7.5	0.125	3
TOFD7.5-6-ST1-LEMO00	7.5	0.25	6
TOFD10-3-ST1-LEMO00	10	0.125	3
TOFD10-6-ST1-LEMO00	10	0.25	6
TOFD15-3-ST1-LEMO00	15	0.125	3
TOFD15-6-ST1-LEMO00	15	0.25	6

| in. | mm |

CASE DIMENSIONS

ELEMENT DIAMETER		A		B		C	
in.	mm						
0.125	3	0.37 in.	9.4 mm	0.72 in.	18.3 mm	0.41 in.	10.4 mm
0.25	6	0.37 in.	9.4 mm	0.72 in.	18.3 mm	0.41 in.	10.4 mm



WEDGES

WEDGE TYPE	DESCRIPTION	PART NUMBER	DIMENSIONS					
			LENGTH		WIDTH		HEIGHT	
TOFD	TOFD wedge for ST1 type TOFD probe - 45-degree LW nominal angle in carbon steel - Irrigation channels and probe holder fixtures.	WTOFD-ST1-45LW-IRR	0.83 in.	21.1 mm	1.25 in.	31.8 mm	0.50 in.	12.7 mm
	TOFD wedge for ST1 type TOFD probe - 60-degree LW nominal angle in carbon steel - Irrigation channels and probe holder fixtures.	WTOFD-ST1-60LW-IRR	0.83 in.	21.1 mm	1.25 in.	31.8 mm	0.50 in.	12.7 mm
	TOFD wedge for ST1 type TOFD probe - 70-degree LW nominal angle in carbon steel - Irrigation channels and probe holder fixtures.	WTOFD-ST1-70LW-IRR	0.83 in.	21.1 mm	1.25 in.	31.8 mm	0.50 in.	12.7 mm

CORROSION

Corrosion arrays are optimized to increase efficiency and probability of detection for corrosion and erosion scanning applications. Typical applications for these arrays include large plates, bars, and other parts with large surface areas. The larger scanning width decreases the inspection time dramatically compared to single-element inspections.

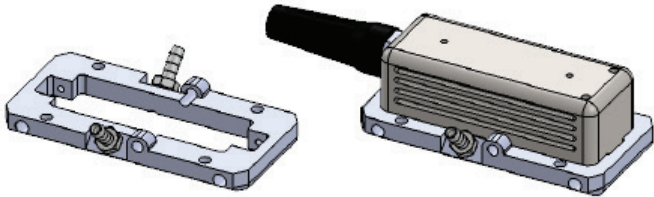


PHASED ARRAYS

CASE	PART NUMBER	FREQUENCY	ELEMENTS	APERTURE		PITCH		ELEVATION		CABLE LENGTH
CL	5DL2x32-CL-2x(48X5)-2.5-IPEX	5	32 Transmit 32 Receive	1.89	48	0.060	1.50	0.20	5	2.5M (8.2 ft.)
CS	5DL2x32-CS-2x(24X5)-2.5-IPEX	5	32 Transmit 32 Receive	0.94	24	0.030	0.75	0.20	5	2.5M (8.2 ft.)
CS	10DL2x64-CS-2x(22.4X5)-2.5-IPEX	10	64 Transmit 64 Receive	0.88	22.4	0.014	0.35	0.20	5	2.5M (8.2 ft.)
RD	7.5DL2x32-RD-2x(48X5)-2.5-IPEX	7.5	32 Transmit 32 Receive	1.89	48	0.060	1.50	0.20	5	2.5M (8.2 ft.)
				in.	mm	in.	mm	in.	mm	

WEAR BARS

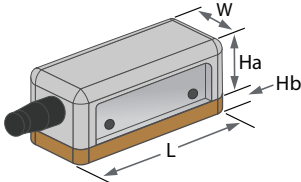
CASE TYPE	DESCRIPTION
CS	Ported Wear Plate, Flat, Porting
CL	Ported Wear Plate, Flat, Porting
Removable	Removable Sled, 3mm (0.12in.) gimbal holes



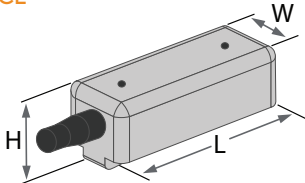
CASE DIMENSIONS

CASE TYPE	CASE DIMENSIONS					
	WIDTH		LENGTH		HEIGHT	
CL	0.95 in.	24.1 mm	2.58 in.	65.5 mm	1.0 in.	25.4 mm
CS	0.95 in.	24.1 mm	1.61 in.	40.9 mm	1.0 in.	25.4 mm
Removable	1.25 in.	31.8 mm	2.58 in.	65.5 mm	1.20 in.	30.5 mm

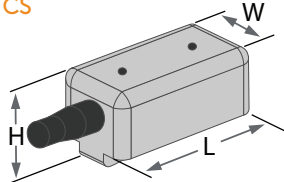
REMOVABLE



CL



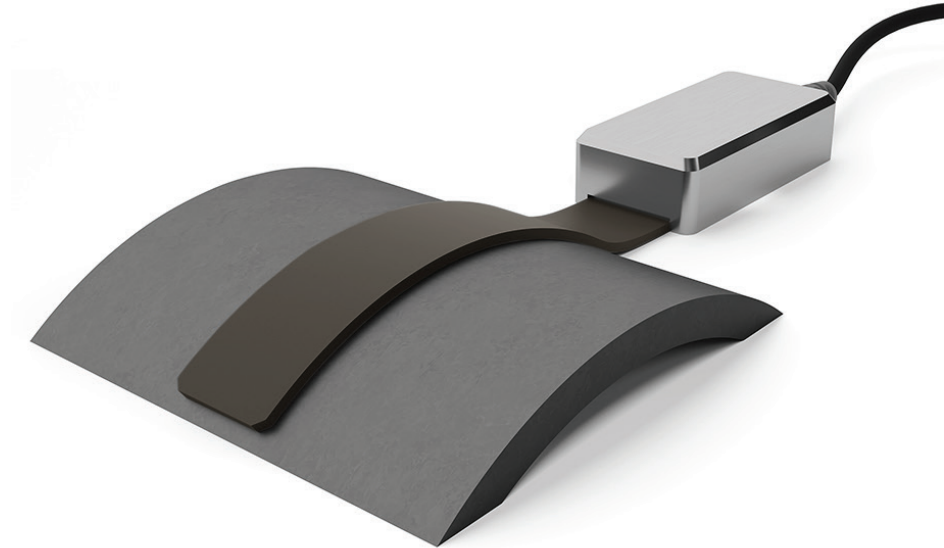
CS



Custom cable lengths available upon request

FLEXIBLE ARRAY

Flexible array probes are perfect for applications on curved metals and composites and can flex to a wide range of radii. Flexible arrays improve the inspection of complex geometry by reducing distortion and loss of sensitivity created by complex coupling requirements. Eddyfi Technologies' flexible arrays are designed to meet the needs of various complex inspections with increased flaw detection and quicker inspection time.



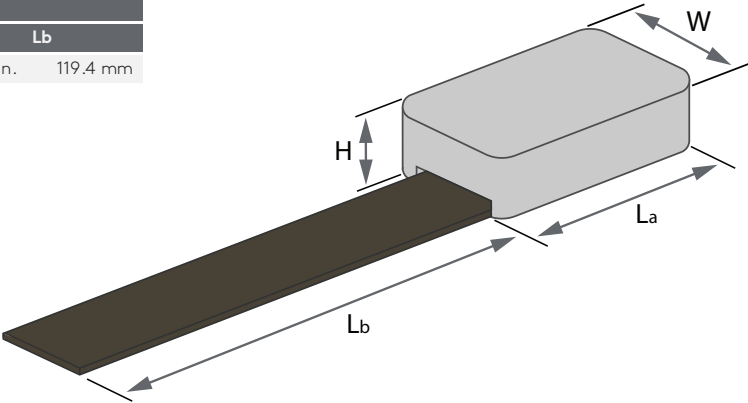
ARRAYS

PART NUMBER	FREQUENCY	ELEMENTS	APERTURE		PITCH		ELEVATION		CABLE LENGTH
5L64-FLEX-64X7-3-IPEX	5	64	2.52	64	0.04	1	0.28	7	3.0M (9.2 ft.)
7L64-FLEX-64X7-3-IPEX	7	64	2.52	64	0.04	1	0.28	7	3.0M (9.2 ft.)
			in.	mm	in.	mm	in.	mm	



CASE DIMENSIONS

CASE DIMENSIONS							
La		H		W		Lb	
2.57 in.	65.3 mm	0.64 in.	16.3 mm	1.27 in.	32.3 mm	4.7 in.	119.4 mm



Custom cable lengths available upon request

WHEELARRAY

The WheelArray is a unique tool and ultrasonic test fixture used to increase inspection productivity of large surface areas associated with composite materials and metal plates. WheelArray is offered in five test frequencies, and the wheel can be replaced or swapped out by the end-user in the field.

Prior to the inspection, a small quantity of water or other suitable couplant needs to be sprayed on the test area.

Custom WheelArrays can be requested including custom frequency, elements, pitch, cable length, and connector type.

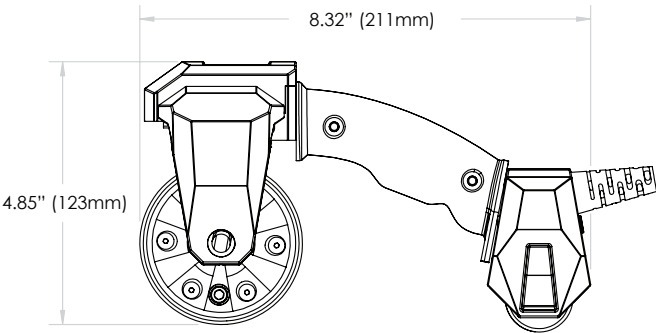
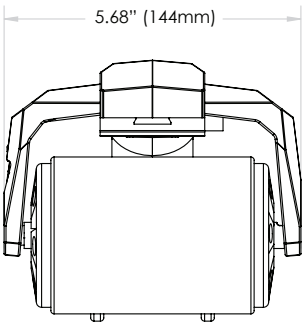


COMPLETE WHEELARRAY KIT

PART NUMBER	FREQUENCY	ELEMENTS	APERTURE		PITCH		ELEVATION		SOUND PATH		BEAM WIDTH	
1L32-WHEELARRAY-51.2X12-5-IPEX-KIT	1	32	2.01 x 0.47	51.2 x 12	0.06	1.6	0.47	12	1.0	25.4	2.0	51.2
2.25L64-WHEELARRAY-51.2X6.4-IPEX-KIT	2.25	64	2.01 x 0.25	51.2 x 6.4	0.03	0.8	0.25	6.4	1.0	25.4	2.0	51.2
3.5L64-WHEELARRAY-51.2X6.4-IPEX-KIT	3.5	64	2.01 x 0.25	51.2 x 6.4	0.03	0.8	0.25	6.4	1.0	25.4	2.0	51.2
5L64-WHEELARRAY-51.2X6.4-IPEX-KIT	5	64	2.01 x 0.25	51.2 x 6.4	0.03	0.8	0.25	6.4	1.0	25.4	2.0	51.2
10L64-WHEELARRAY-51.2X6.4-IPEX-KIT	10	64	2.01 x 0.25	51.2 x 6.4	0.03	0.8	0.25	6.4	1.0	25.4	2.0	51.2
			in.	mm	in.	mm	in.	mm	in.	mm	in.	mm

REPLACEMENT ARRAY & WHEEL

PART NUMBER	FREQUENCY	ELEMENTS	APERTURE		PITCH		ELEVATION		SOUND PATH		BEAM WIDTH	
1L32-WHEELARRAY-51.2X12-5-IPEX-SPARE	1	32	2.01 x 0.47	51.2 x 12	0.06	1.6	0.47	12	1.0	25.4	2.0	51.2
2.25L64-WHEELARRAY-51.2X6.4-IPEX-SPARE	2.25	64	2.01 x 0.25	51.2 x 6.4	0.03	0.8	0.25	6.4	1.0	25.4	2.0	51.2
3.5L64-WHEELARRAY-51.2X6.4-IPEX-SPARE	3.5	64	2.01 x 0.25	51.2 x 6.4	0.03	0.8	0.25	6.4	1.0	25.4	2.0	51.2
5L64-WHEELARRAY-51.2X6.4-IPEX-SPARE	5	64	2.01 x 0.25	51.2 x 6.4	0.03	0.8	0.25	6.4	1.0	25.4	2.0	51.2
10L64-WHEELARRAY-51.2X6.4-IPEX-SPARE	10	64	2.01 x 0.25	51.2 x 6.4	0.03	0.8	0.25	6.4	1.0	25.4	2.0	51.2
			in.	mm	in.	mm	in.	mm	in.	mm	in.	mm



IMMERSION LINEAR

Much like conventional immersion transducers, immersion arrays are used in automatic and manual scanning systems using water or another liquid to couple to parts with complex geometries or large surface areas. Immersion inspection offers near-surface resolution superior to that of contact transducers. Immersion transducers are also effective for inspection of composite materials.



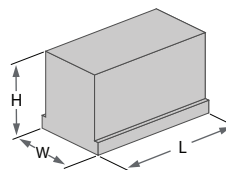
ARRAYS

CASE	PART NUMBER	FREQUENCY	ELEMENTS	APERTURE		PITCH		ELEVATION		CABLE LENGTH
I1	5L64-I1-38.4X10-2.5-IPEX	5	64	3.02	76.8	0.024	0.60	0.39	10	2.5M (8.2 ft.)
	10L64-I1-38.4X10-2.5-IPEX	10	64	1.51	38.4	0.024	0.60	0.39	10	2.5M (8.2 ft.)
I2	5L128-I2-76.8X10-2.5-IPEX	5	128	3.02	76.8	0.024	0.60	0.39	10	2.5M (8.2 ft.)
	10L128-I2-64X7-2.5-IPEX	10	128	2.52	64	0.020	0.50	0.28	7	2.5M (8.2 ft.)
I3	2.25L128-I3-96X12-5-IPEX	2.25	128	3.78	96	0.030	0.75	0.47	12	5M (16.4 ft.)
	5L128-I3-96X10-5-IPEX	5	128	3.78	96	0.024	0.60	0.38	10	5M (16.4 ft.)
I4	5L64-I4-64X7-3-IPEX	5	64	2.52	64	0.030	1.00	0.28	7	3M (9.8 ft.)
	7.5L64-I4-64x7-7.5-IPEX	7.5	64	2.52	64	0.030	1.00	0.28	7	7.5M (24.6 ft.)
				in.	mm	in.	mm	in.	mm	

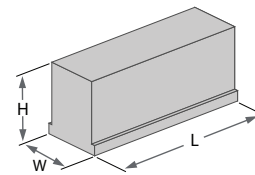
CASE DIMENSIONS

CASE TYPE	CASE DIMENSIONS					
	LENGTH		WIDTH		HEIGHT	
I1	1.97 in.	50 mm	0.75 in.	19 mm	0.98 in.	24.9 mm
I2	3.27 in.	83.1 mm	0.83 in.	21.1 mm	1.38 in.	35.1 mm
I3	4.02 in.	102.1 mm	0.83 in.	21.1 mm	1.38 in.	35.1 mm
I4	3.08 in.	78.2 mm	0.97 in.	24.6 mm	1.00 in.	25.4 mm

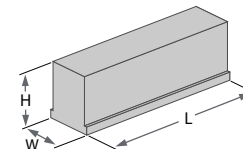
I1



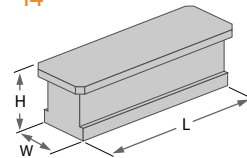
I2



I3



I4



IMMERSION ANNULAR

Much like conventional immersion transducers, immersion arrays are used in automatic and manual scanning systems using water or another liquid to couple to parts with complex geometries or large surface areas. Immersion inspection offers near-surface resolution superior to that of contact transducers. Immersion transducers are also effective for inspection of composite materials.

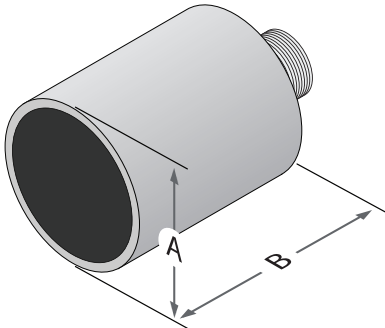


ARRAYS

CASE	PART NUMBER	FREQUENCY	ELEMENTS	APERTURE		PITCH		ELEVATION		CABLE LENGTH
AN	5AN16-AN-25.4d-2.5-IPEX	5	16	1.0	25.4	0.04	1.0	1.0	25.4	2.5M (8.2 ft.)
	10AN16-AN-25.4d-2.5-IPEX	10	16	1.0	25.4	0.04	1.0	1.0	25.4	2.5M (8.2 ft.)
				in.	mm	in.	mm	in.	mm	

CASE DIMENSIONS

CASE TYPE	CASE DIMENSIONS			
	A		B	
Annular	1.4 in.	35.5 mm	1.6 in.	40.6 mm



CONTACT MEMBRANE

Contact membrane arrays are linear arrays specially designed and optimized for the inspection of threaded bolts or applications with rough surfaces. The membrane allows for effective coupling on those rough surfaces and can be replaced to extend the life of the array. Contact membrane transducers have side-mounted cables but can be specially ordered with top-mounted cables.

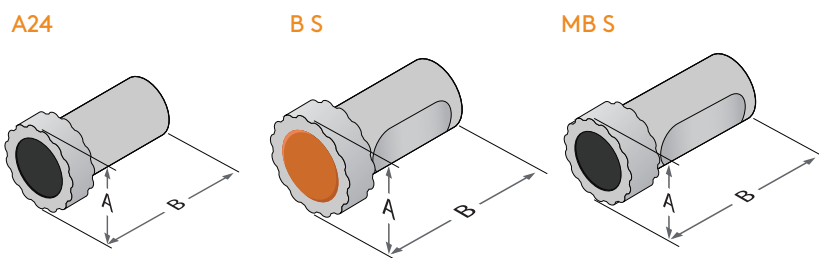


PHASED ARRAYS

CASE	PART NUMBER	FREQUENCY	ELEMENTS	APERTURE		PITCH		ELEVATION		CABLE LENGTH
A24	4L16-A24-16X16-2.5-IPEX	4	16	0.63	16	0.040	1.00	0.63	16	2.5M (8.2 ft.)
B S	2L16-BS-24X24-2.5-IPEX	2	16	0.94	24	0.060	1.50	0.94	24	2.5M (8.2 ft.)
	4L16-BS-24X24-2.5-IPEX	4	16	0.94	24	0.060	1.50	0.94	24	2.5M (8.2 ft.)
MB S	2L16-MBS-10X10-2.5-IPEX	2	16	0.39	10	0.025	0.63	0.39	10	2.5M (8.2 ft.)
	4L16-MBS-10X10-2.5-IPEX	4	16	0.39	10	0.025	0.63	0.39	10	2.5M (8.2 ft.)
				in.	mm	in.	mm	in.	mm	

CASE DIMENSIONS

CASE TYPE	CASE DIMENSIONS			
	A		B	
A24	1.07 in.	27.2 mm	1.75 in.	44.5 mm
MB S	0.98 in.	24.9 mm	1.61 in.	40.1 mm
B S	1.77 in.	45 mm	2.41 in.	61.2 mm



TFM ARRAY

Total Focusing Method (TFM) is an algorithm used to translate the inspection information gathered from Full Matrix Capture (FMC). This process allows for enhanced imaging by focusing at all points within the inspection area.

AL-TFM ARRAYS

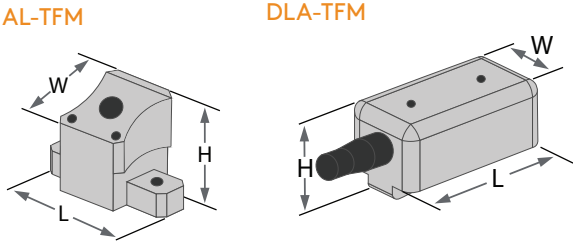
CASE	PART NUMBER	FREQUENCY	ELEMENTS	APERTURE		PITCH		ELEVATION		CABLE LENGTH		
AL-TFM	5L64-AL-TFM-19.2X15-2.5-IPEX-DF50	5	64	0.75	19.2	0.012	0.30	0.59	15	2.5M (8.2 ft.)		
	5L64-AL-TFM-19.2X15-2.5-IPEX-DF15	5	64	0.75	19.2	0.012	0.30	0.59	15	2.5M (8.2 ft.)		
	10L64-AL-TFM-19.2X15-2.5-IPEX-DF50	10	64	0.75	19.2	0.012	0.30	0.59	15	2.5M (8.2 ft.)		
					in.		mm		in.		mm	

DLA-TFM ARRAYS

CASE	PART NUMBER	FREQUENCY	ELEMENTS	APERTURE		PITCH		ELEVATION		CABLE LENGTH	
DLA-TFM	10DL2x64-DLA-TFM-2x(24X5)-2.5-IPEX	10	2x64	0.08x0.94	2x24	0.015	0.375	0.20	5	2.5M (8.2 ft.)	
					in.		mm		in.		mm

CASE DIMENSIONS

CASE TYPE	CASE DIMENSIONS					
	LENGTH		WIDTH		HEIGHT	
AL	1.30 in.	33 mm	0.95 in.	41.1 mm	0.98 in.	24.9 mm
CS	0.95 in.	24.1 mm	1.61 in.	40.9 mm	1.0 in.	25.4 mm



MATRIX ARRAYS

Matrix array transducers enable enhanced phased array inspections and full matrix capture that provides better POD, improved flaw sizing & characterization, enhanced imaging, and faster inspection scans. Whether it's a simple 4 x 8 element array for weld inspection or as complicated as an 800-element array for heavy-wall forgings, Eddyfi Technologies can prove out a design in 3D computer simulation and easily change key variables such as frequency and pitch before the final design and fabrication process begins.



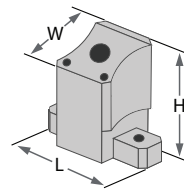
ARRAYS

CASE	PART NUMBER	FREQUENCY	ELEMENTS	APERTURE		PITCH		CABLE LENGTH
AM	5M9x7-AM-9.9x7.7-2.5-IPEX	5	9x7	0.39x0.30	9.9x7.7	0.043x0.043	1.10x1.10	2.5M (8.2 ft.)
AL	2.25M9x7-AL-15.8x12-2.5-IPEX	2.25	9x7	0.62x0.47	15.8x12	0.069x0.067	1.76x1.71	2.5M (8.2 ft.)
A17	2.25M7x4-A17-18.9x12-2.5-IPEX	2.25	7x4	0.74x0.47	18.9x12	0.106x0.118	2.70x3.00	2.5M (8.2 ft.)
MED	2.25M10x3-MED-20x12-2.5-IPEX	2.25	10x3	0.79x0.47	20x12	0.079x0.157	2.00x4.00	2.5M (8.2 ft.)
MED	1.5M8x4-MED-20x12-2.5-IPEX	1.5	8x4	0.79x0.47	20x12	0.099x0.118	2.50x3.00	2.5M (8.2 ft.)
MED	3.5M16x2-MED-20x12-2.5-IPEX	3.5	16x2	0.79x0.47	20x12	0.049x0.235	1.25x6.00	2.5M (8.2 ft.)
A11	5M16x4-A11-22.4x8-2.5-IPEX	5	16x4	0.88x0.31	22.4x8	0.055x0.078	1.40x2.00	2.5M (8.2 ft.)
A10	10M16x4-A10-22.4x8-2.5-IPEX	10	16x4	0.88x0.31	22.4x8	0.055x0.078	1.40x2.00	2.5M (8.2 ft.)
A11	7.5M16x4-A11-22.4x8-2.5-IPEX	7.5	16x4	0.88x0.31	22.4x8	0.055x0.078	1.40x2.00	2.5M (8.2 ft.)
				in.	mm	in.	mm	

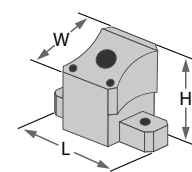
CASE DIMENSIONS

CASE TYPE	CASE DIMENSIONS					
	LENGTH		WIDTH		HEIGHT	
AM	1.18 in.	30 mm	0.63 in.	16 mm	0.98 in.	24.9 mm
AL	1.30 in.	33 mm	0.95 in.	41.1 mm	0.98 in.	24.9 mm
A17	1.34 in.	34 mm	0.63 in.	16 mm	0.98 in.	24.9 mm
MED	1.18 in.	30 mm	0.63 in.	16 mm	0.79 in.	20 mm
A10	0.91 in.	23.1 mm	0.63 in.	16 mm	0.79 in.	20 mm
A11	0.98 in.	24.9 mm	0.91 in.	23.1 mm	0.79 in.	20 mm

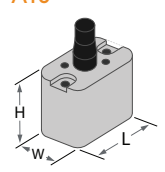
AM



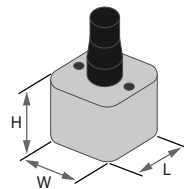
AL



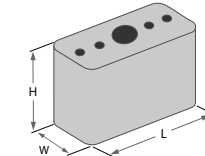
A10



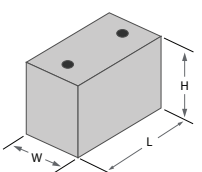
A11



A17



MED



Custom cable lengths available upon request

DUAL MATRIX ARRAYS

The use of transmit-receive configurations yields better sensitivity and Signal-to-Noise Ratio (SNR). Compression waves are less affected by propagation through anisotropic materials than Shear waves. With its 2D dual matrix array probe family, Eddyfi Technologies offers a comprehensive solution for the inspection of coarse-grained, austenitic materials, corrosion-resistant alloys, and dissimilar metal welds, offering a superior SNR ratio. The beam skewing capability of 2D matrix array probes improves the detection capability of misoriented flaws.



ARRAYS

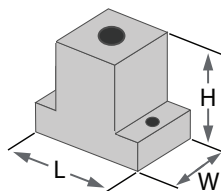
CASE	PART NUMBER	FREQUENCY	ELEMENTS	APERTURE		PITCH		CABLE LENGTH
A27	4DM2x32(16x2)-A27-16X6-2.5-IPEX	4	2x32(16x2)	0.63x0.24	16x6	0.039x0.120	1.00x3.00	2.5M (8.2 ft.)
A27	7.5DM2x32(16x2)-A27-16X6-2.5-IPEX	7.5	2x32(16x2)	0.63x0.24	16x6	0.039x0.120	1.00x3.00	2.5M (8.2 ft.)
MED	2.25DM2x30(10x3)-MED-20x12-2.5-IPEX	2.25	2x30(10x3)	0.79x0.47	20x12	0.039x0.120	1.00x3.00	2.5M (8.2 ft.)
LARGE	1.5DM2x32(8x4)-LARGE-28x16-2.5-IPEX	1.5	2x32(8x4)	1.10x0.63	28x16	0.138x0.158	3.50x4.00	2.5M (8.2 ft.)
MED	3.5DM2x32(16x2)-MED-20x12-2.5-IPEX	3.5	2x32(16x2)	0.79x0.47	20x12	0.049x0.235	1.25x6.00	2.5M (8.2 ft.)
MED	1.5DM2x32(8x4)-MED-20x12-2.5-IPEX	1.5	2x32(8x4)	0.79x0.47	20x12	0.099x0.118	2.50x3.00	2.5M (8.2 ft.)
MED	2.25DM2x32(8x4)-MED-20x12-2.5-IPEX	2.25	2x32(8x4)	0.79x0.47	20x12	0.099x0.118	2.50x3.00	2.5M (8.2 ft.)
A17	1.5DM2x28(7x4)-A17-18.9x12-2.5-IPEX	1.5	2x28(7x4)	0.74x0.47	18.9x12	0.106x0.118	2.70x3.00	2.5M (8.2 ft.)
A17	2.25DM2x28(7x4)-A17-18.9x12-2.5-IPEX	2.25	2x28(7x4)	0.74x0.47	18.9x12	0.106x0.118	2.70x3.00	2.5M (8.2 ft.)
A17	4DM2x28(7x4)-A17-18.9x12-2.5-IPEX	4	2x28(7x4)	0.74x0.47	18.9x12	0.106x0.118	2.70x3.00	2.5M (8.2 ft.)

in. | mm | in. | mm

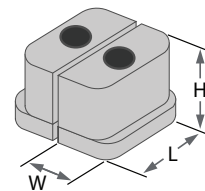
CASE DIMENSIONS

CASE TYPE	CASE DIMENSIONS					
	LENGTH		WIDTH		HEIGHT	
E4	1.33 in.	33.8 mm	0.65 in.	16.5 mm	1.0 in.	25.4 mm
E5	1.41 in.	35.8 mm	0.62 in.	15.7 mm	1.0 in.	25.4 mm
A27	1.12 in.	28.4 mm	0.39 in.	9.9 mm	0.79 in.	20 mm
MED	1.18 in.	30 mm	0.63 in.	16 mm	0.79 in.	20 mm
LARGE	1.53 in.	39 mm	0.79 in.	20 mm	0.98 in.	25 mm
A17	1.34 in.	34 mm	0.63 in.	16 mm	0.98 in.	25 mm

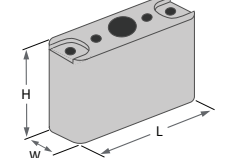
E4



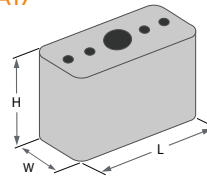
E5



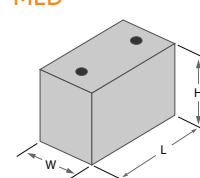
A27



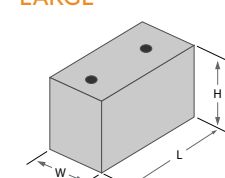
A17



MED



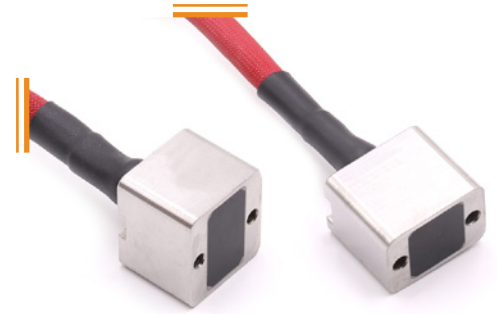
LARGE



Custom cable lengths available upon request

HIGH-TEMP LINEAR

High-Temperature Linear Arrays are versatile arrays that optimize a wide range of high-temp applications including weld inspection, tube and pipe inspection, rails, pressure vessels, and many more. These arrays come standard with 2.5-meter (8.2 ft.) cables with IPEX connectors. Wedges for these arrays are available in two options: Mid Temp [100°C to 150°C (212°F to 302°F)] and High Temp [150°C to 200°C (302°F to 392°F)]. Each wedge type is also available in 30-70° and 0° refracted angle models.



HIGH-TEMP ARRAYS

CASE	PART NUMBER	FREQUENCY	ELEMENTS	APERTURE		PITCH		ELEVATION		CABLE LENGTH
A10	5L16-A10-9.6X10-2.5-IPEX-HT	5	16	0.38x0.39	9.6x10	0.024	0.60	0.39	10	2.5M (8.2 ft.)
A11	5L32-A11-19.2X10-2.5-IPEX-HT	5	32	0.75x0.39	19.2x10	0.024	0.60	0.39	10	2.5M (8.2 ft.)
				in.	mm	in.	mm	in.	mm	

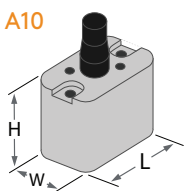
WEDGES

WEDGE TYPE	DESCRIPTION	PART NUMBER	LENGTH	WIDTH	HEIGHT
A10	High-temperature resistant wedge for A10 phased array probe - (100°-150°C) - Designed for linear scanning at 0 degree using LW - 0deg LW nominal angle - 20mm delay - Irrigation, probe holder fixtures & carbides	WSA10-0L-FLAT-IHC-20mm-MT	0.98 in. 24.9 mm	1.58 in. 40.1 mm	0.79 in. 20.1 mm
	High-temperature resistant wedge for A10 phased array probe - (100°-150°C) - Designed for azimuthal scanning from 40 to 70 degree using SW - 55deg SW nominal angle - Irrigation, probe holder fixtures & carbides	WSA10-55S-FLAT-IHC-MT	0.91 in. 23.1 mm	1.30 in. 33 mm	0.56 in. 14.2 mm
	High-temperature resistant wedge for A10 phased array probe - (150°-200°C) - Designed for linear scanning at 0 degree using LW - 0deg LW nominal angle - 20mm delay - Irrigation, probe holder fixtures & carbides	WSA10-0L-FLAT-IHC-20mm-HT	0.98 in. 24.9 mm	1.58 in. 40.1 mm	0.79 in. 20.1 mm
	High-temperature resistant wedge for A10 phased array probe - (150°-200°C) - Designed for azimuthal scanning from 40 to 70 degree using SW - 55deg SW nominal angle - Irrigation, probe holder fixtures & carbides	WSA10-55S-FLAT-IHC-HT	1.40 in. 35.6 mm	1.58 in. 40.1 mm	0.70 in. 17.8 mm
A11	High-temperature resistant wedge for A11 phased array probe - (100°-150°C) - Designed for linear scanning at 0 degree using LW - 0deg LW nominal angle - 20mm delay - Irrigation, probe holder fixtures & carbides	WSA11-0L-FLAT-IHC-20mm-MT	1.38 in. 35.1 mm	1.58 in. 40.1 mm	0.79 in. 20.1 mm
	High-temperature resistant wedge for A11 phased array probe - (100°-150°C) - Designed for azimuthal scanning from 40 to 70 degree using SW - 55deg SW nominal angle - Irrigation, probe holder fixtures & carbides	WSA11-55S-FLAT-IHC-MT	1.63 in. 41.4 mm	1.30 in. 33 mm	1.13 in. 28.7 mm
	High-temperature resistant wedge for A11 phased array probe - (150°-200°C) - Designed for linear scanning at 0 degree using LW - 0deg LW nominal angle - 20mm delay - Irrigation, probe holder fixtures & carbides	WSA11-0L-FLAT-IHC-20mm-HT	1.38 in. 35.1 mm	1.58 in. 40.1 mm	0.79 in. 20.1 mm
	High-temperature resistant wedge for A11 phased array probe - (150°-200°C) - Designed for azimuthal scanning from 40 to 70 degree using SW - 55deg SW nominal angle - Irrigation, probe holder fixtures & carbides	WSA11-55S-FLAT-IHC-HT	2.25 in. 57.2 mm	1.30 in. 33 mm	1.05 in. 26.7 mm

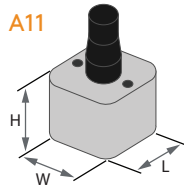
CASE DIMENSIONS

CASE TYPE	CASE DIMENSIONS		
	LENGTH	WIDTH	HEIGHT
A10	0.91 in. 23.1 mm	0.63 in. 16 mm	0.79 in. 20 mm
A11	0.98 in. 24.9 mm	0.91 in. 23.1 mm	0.79 in. 20 mm

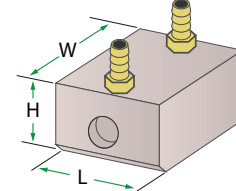
A10



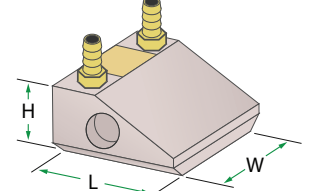
A11



0°



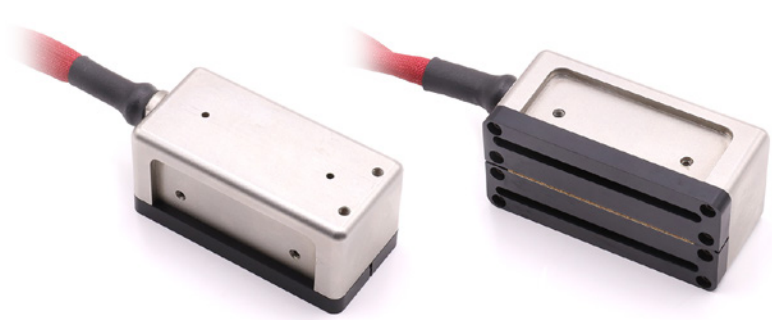
40-70°



Custom cable lengths available upon request

HIGH-TEMP DUAL LINEAR

The High-Temp Dual-Linear Corrosion Array is optimized for corrosion and erosion inspection at elevated temperatures. The transducer and its replaceable delay line are designed to withstand temperatures up to 200°C (395°F). This dual array features 32 transmit and 32 receive elements to provide larger beam coverage than conventional dual-element transducers. The transmit and receive element sets have an included angle to provide a pseudo-focusing effect in the inspected material. See page 14 for more ambient temperature dual-linear corrosion array options.



HIGH-TEMP ARRAYS

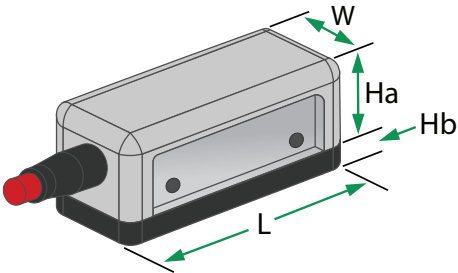
CASE	PART NUMBER	FREQUENCY	ELEMENTS	APERTURE		PITCH		ELEVATION		CABLE LENGTH
CL	5DL2x32-CL-2x(48X5)-5-IPEX-RD-HT	5	32 Transmit 32 Receive	1.89x0.20	48x5	0.060	1.50	0.20	5	2.5M (8.2 ft.)
				in.	mm	in.	mm	in.	mm	

ACCESSORIES

WEDGE TYPE	DESCRIPTION	PART NUMBER
CL	High-temperature resistant replaceable delay line for CL dual linear probe	WCL-RD-HT
	High-temperature resistant sled for CL dual linear probe	WCL-SLED-HT

DIMENSIONS

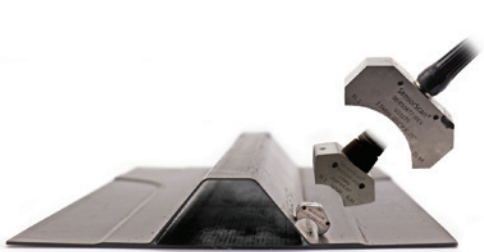
CASE TYPE	CASE DIMENSIONS							
	LENGTH		WIDTH		HEIGHT A		HEIGHT B	
CL	2.58 in.	65.5 mm	1.25 in.	31.8 mm	0.98 in.	24.9 mm	0.22 in.	5.6 mm
CL w/ Sled	2.58 in.	65.5 mm	1.25 in.	31.8 mm	0.98 in.	24.9 mm	0.23 in.	5.8 mm



Custom cable lengths available upon request

CUSTOM SOLUTIONS FOR ALL YOUR INSPECTION CHALLENGES

Eddyfi Technologies has invested in people, technology, and infrastructure to create a vertically integrated process for the design and manufacturing of inspection systems. In-house CAD/CAM capabilities, including full-scale machine shop operation with 5-axis CNC mills and lathes, allow for rapid prototyping of complex geometries and materials. In-house ceramic fabrication facilities enable fast and efficient turnaround for critical piezo-composite materials. With a team of highly experienced applications engineers, our custom applications lab has the best minds working to create the best solutions for all your most critical inspection challenges.



Curved immersion arrays for the inspection of carbon-fiber-reinforced polymers corners



Custom 256-element array for aerospace forging inspection



Custom 92-element array for tube and bar testing machines



INDUSTRY-LEADING DESIGN AND SIMULATION PROCESSES

SolidWorks: Parametric 3D CAD and mechanical properties modeling

AutoCAD: 2D CAD and ray-tracing

CIVA: Acoustic beam modeling and delay-law calculation

PiezoCAD: Transducer construction and performance modeling

Field II: Transducer construction and performance modeling

UltraVision 3D: NDT data imaging and analysis software

ES Beam Tool: Ultrasonic inspection plan design and validation software



ONE-STOP PAUT SHOP

Eddyfi Technologies, renowned for its commitment to excellence in non-destructive testing, is now your trusted partner for all PAUT needs, offering a holistic solution that covers everything from state-of-the-art probes to advanced data acquisition and analysis units, as well as scanners. With decades of experience, we stand at the forefront of NDT technology, and our inspection solutions are designed by experts, for experts, ensuring the highest quality and reliability for your inspections.

Our expanded PAUT offering has been designed to streamline your inspection process, enhancing efficiency and cost-effectiveness. At Eddyfi, we take pride in our commitment to meeting strict regulatory standards and codes, making us the preferred choice in industries with rigorous safety and quality requirements.

Key Highlights of Eddyfi Technologies' Expanded PAUT Offering

- **Comprehensive Solutions:** Our complete PAUT package is tailored to meet your unique inspection challenges. Whether you require generic standard probes or application-specific solutions, we have you covered.
- **Training and Support:** Beyond equipment, Eddyfi Technologies provides training and support services to ensure you have the knowledge and assistance you need to maximize the potential of your NDT capabilities. Visit the [Eddyfi Academy](#).
- **Accessibility and Efficiency:** We understand the challenges faced by industry professionals when sourcing PAUT equipment. In the past, procuring PAUT probes from third parties often came with hefty price tags and long lead times. With our readily available, on-the-shelf stocked items, we aim to streamline your inspection process, ensuring you have what you need when you need it. Check out the [Eddyfi eStore](#).
- **Custom Solutions:** For those with unique requirements, we offer custom-designed application-specific probes to address specific challenges.
- **Reduced Lead Times and Costs:** Our unwavering focus is on reducing lead times and costs, making our PAUT solutions both accessible and cost-effective.

Eddyfi Technologies recognizes the complexity and demands of the industry and strives to provide more than just equipment – **we are the sole solution provider for the complete PAUT package**. Our commitment to customer success goes beyond providing tools; we offer guidance and training, ensuring you have the resources needed for success.

"I can confidently say that our integration with Sensor Networks, Inc. has transformed us into the go-to destination for comprehensive phased array ultrasonic testing solutions. Our commitment to quality, efficiency, and customer success is unparalleled. We're not just providing inspection equipment; we're offering expertise, support, and a game-changing approach to NDT."

Frédéric Laprise, VP, Center of Excellence - PAUT

Eddyfi Technologies is dedicated to making PAUT solutions accessible, efficient, and cost-effective, and we are confident that our expanded offering will revolutionize the way you approach non-destructive testing.



The information in this document is accurate as of its publication. Actual products may differ from those presented herein.

©2023 Eddyfi Canada Inc. Eddyfi & WheelArray and their associated logos are trademarks or registered trademarks of Eddyfi Canada Inc. in Canada and/or other countries. Eddyfi Technologies reserves the right to change product offerings and specifications without notice. Eddyfi Technologies is a Previa Business Unit.

2023-11-21

www.eddyfi.com

info@eddyfi.com

