

Innovators in NDT Technology

Linear Phased Array Probes PA-W40-5L32

Reenk House

High performance linear phased array probes, designed with piezo-composite elements to provide high resolution imaging and to maximise sensitivity.

Housed in a rugged stainless steel case for all industrial NDT applications. Phoenix ISL linear phased array probes are compatible with market leading instruments and the Phoenix ISL range of phased array wedges.

Transducer Properties

Element Pattern	Linear
Coupling Type	Contact
Frequency, MHz	5.0
No. Elements	32
Pitch, mm	1.0
Aperture (A), mm	32.0
Elevation, mm	10.0
Elem. 1 to End of Case (B), mm	4.5
Length (L), mm	40
Width (W), mm	23
Height (H), mm	25
Shipping Weight (boxed), g	810
Captive Screw Separation, mm	17W x 28L
Connector Type	IPEX
Connector Location	Тор
Case Material	Stainless Steel
Front Face	Flat

Supplied with:

- Phased array probe with integral cable and IPEX connector*
- Array Characterisation Report
- Carry Case
- * Other connectors available to order, upon request.

Performance Specification

Centre Frequency, MHz	4.5 MHz < <i>f</i> o < 5.5 MHz
Bandwidth, 6dB	$2.25 \text{ MHz} < \Delta f < 10 \text{ MHz}$
Relative Bandwidth, 6dB	$45 \% < \Delta f_{rel} < 200 \%$
Pulse Length, 20dB	0.5 ± 20 %
Depth Tolerance	± 0.2mm

Specification derived with the following equipment:

- Micropulse LT2 Pulser/Receiver
- National Instruments 128ch Multiplexer
- InspectionWare 9 Software

Test Conditions and Settings

Pulse Voltage: 150V Pulse Shape: Square Damping: 54 Ω Filter: 0.75 - 12 MHz Reflector: 20mm



NOVA INSTRUMENTS



noenix Inspection Systems Limited and its associated logo is a registered trade mark

Phased Array Probe Parameters

Frequency	No. of	Pitch (mm)	Aperture A (mm)	EI.1 to End	Elevation	External Dimensions (mm)			
MHz	Elements			of Case B (mm)	(mm)	Length L	Width W	Height H	
5.0	16	0.60	9.6	5.5	10	20	23	25	
5.0	32	0.60	19.2	5.7	10	30	23	25	
5.0	32	1.00	32.0	4.5	10	40	23	25	
5.0	64	0.50	32.0	4.25	10	40	23	25	
5.0	60	1.00	60.0	5.5	10	70	23	25	
7.5	16	0.5	8.0	2.5	10	25.9	21.9	9.7	
	MHz 5.0 5.0 5.0 5.0 5.0 5.0	MHz Elements 5.0 16 5.0 32 5.0 32 5.0 64 5.0 60	MHz Elements (mm) 5.0 16 0.60 5.0 32 0.60 5.0 32 1.00 5.0 64 0.50 5.0 60 1.00	MHz Elements (mm) A (mm) 5.0 16 0.60 9.6 5.0 32 0.60 19.2 5.0 32 1.00 32.0 5.0 64 0.50 32.0 5.0 60 1.00 60.0	MHz Elements (mm) A (mm) of Case B (mm) 5.0 16 0.60 9.6 5.5 5.0 32 0.60 19.2 5.7 5.0 32 1.00 32.0 4.5 5.0 64 0.50 32.0 4.25 5.0 60 1.00 60.0 5.5	MHz Elements (mm) A (mm) of Case B (mm) (mm) 5.0 16 0.60 9.6 5.5 10 5.0 32 0.60 19.2 5.7 10 5.0 32 1.00 32.0 4.5 10 5.0 64 0.50 32.0 4.25 10 5.0 60 1.00 60.0 5.5 10	MHz Mot of Elements Mich (mm) Aperture A (mm) Hor of Case B (mm) Levation (mm) Length L 5.0 16 0.60 9.6 5.5 10 20 5.0 32 0.60 19.2 5.7 10 30 5.0 32 1.00 32.0 4.5 10 40 5.0 64 0.50 32.0 4.25 10 40 5.0 60 1.00 60.0 5.5 10 40	Hereine Aperiare Aperiare Arrectice Hereine	

The above phased array probes are available from stock

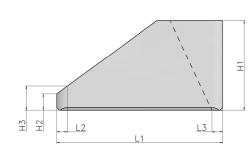
Other specification phased array probes available on request

.....

Phased Array Wedges

Phoenix ISL phased array wedges are available in a range of angle sizes and can be contoured to your specification.

Wedges include: irrigation, mounting holes and wear pins to increase wear resistance.





Product Code	Velocity m/s	Front Height H1 (mm)	Rear Height H2 (mm)	Height to El. 1 H3 (mm)	Length L1 (mm)	Length to El. 1 L2 (mm)	Length to Damping L3 (mm)	Width (mm)	Wedge Angle°	Wave Type	Angle° in C/Steel
WPA-W20-55S-IMW	2330	15.50	3.62	7.0	25.0	4.7	4.0	40.0	36.1	Shear	55
WPA-W30-55S-IMW	2330	32.00	11.33	16.0	49.0	6.4	4.0	40.0	36.1	Shear	55
WPA-W40-55S-IMW	2330	33.50	6.27	11.0	62.0	6.4	4.0	40.0	36.1	Shear	55
WPA-W70-55S-IMW	2330	47.50	4.18	8.2	82.0	5.5	4.0	40.0	36.1	Shear	55
WPA-W20-0L-IMW	2330	20.00	20.00	20.00	25.0	8.0		40.0	0	Long	0
WPA-W30-OL-IMW	2330	20.00	20.00	20.00	49.0	15.2		40.0	0	Long	0
WPA-W40-OL-IMW	2330	20.00	20.00	20.00	62.0	15.5		40.0	0	Long	0
WPA-W70-0L-IMW	2330	20.00	20.00	20.00	82.0	11.5		40.0	0	Long	0

Bracelet Wedges (contoured) Available for pipes ranging from 0.5" - 8" NPS . Please contact our Sales team to order.

Other specification phased array wedges available on request.

Phoenix Inspection Systems Limited, Dalton House, 40 Hardwick Grange, Warrington, WA1 4RF, United Kingdom t: +44 (0) 1925 826000 | f: +44 (0) 1925 838788 | e: sales@phoenixisl.com | www.phoenixisl.com

Phoenix Inspection Systems Limited is a Nova Instruments company. For further information visit www.novaic.com

Phoenix Inspection Systems Limited has a policy of continuous development therefore reserves the right to change products, specifications and pricing without forward notice. Actual products may differ from those presented herein. The information in this datasheet is accurate at time of publication.