

Krautkramer USD 15 Family

The high-performance ultrasonic dialog flaw detectors with a difference - in use worldwide

Function	Unit	USD 15 B	USD 15 X	USD 15 SX	USD 15-19" USD 15/2-19"	USD 15 SQ
Range	mm	2.5 - 9999	2.5 - 9999	5.5 - 9999	2.5 - 9999	5.5 - 9999
	inch	0.1 - 250	0.1 - 250	0.22 - 250	0.1 - 250	0.22 - 250
	µs	—	0.84 - 3000	1.85 - 3000	0.84 - 3000	1.85 - 3000
Velocity	m/s	500 - 15000				500 - 9999
	inch/ ms	20 - 1200				
Pulse shift	µs	25 - 9999				
Probe delay	µs	0 - 999.99				
Pulser type		spike				square-wave
Voltage	V	max. 400				150 and 300
Rise time	ns	—				30 - 1000
Capacity	pF	220, 1000, 2000				—
Damping	Ohm	33, 50, 75, 500				25, 50, 100, 200
Pulse repetition frequency	Hz	50 - 4000	1 - 12000			50 - 4000
PRF setting		external, automatic, manual				
Operating modes		single element and dual				plus: through-transmission
Frequency range	MHz	0.3 - 20 (-3 dB) / 0.2 - 35 (-20 dB)				
Narrow-band ranges	MHz	0.5, 1, 2, 4, 10, 15				
Broadband ranges	MHz	3.7 - 20, 4 MHz (DIN)				3.7-20, high pass
Gain	dB	0 - 110				
Steps	dB	0.5, 1, 2, 6 and programmable				plus: 0.05
Rectification		full-wave, pos. half-wave, neg. half-wave, RF mode				plus: rectified filter
Suppression	%	0 - 89				
Distance Amplitude		—	max. 20 reference echoes			
Correction (DAC) Display		—	active gate (DAC) or time-corrected gain (TCG)			
Dynamic / Slope		—	40 dB, 6 dB/µs			
Monitor gates		2	3			2
Interface echo gate		—	yes			
Alarm logic		off, coincidence, anticoincidence				
Alarm display		LED and acoustic (switch-off option)				
Alarm duration		short or continuous				



Function	Unit	USD 15 B	USD 15 X	USD 15 SX	USD 15 - 19" USD 15/2 - 19"	USD 15 SQ
Alarm extension	s	—				0.5 - 5
Noise suppression		signal sequence counter 2 - 16				
Units of measurement		mm, inch	ss, mm, inch			
Sound path measurement		trigger points: flank, peak, two zero crossings at RF signals				
from zero point		sound path	sound path, (reduced) projection distance, depth			
Curvature correction		—	yes			
from interface echo		—	delay line, gate A and B			delay line, gate A
Sound path differences		gates B-A	gates A-I, B-I, B-A			gates A-I
Sound path		—	delay line+A and delay line-B			—
Resolution, time-of-flight		0.01 mm or 4 ns				
Amplitude measurement	%/dB	in gates A, B	in gates I, A and B			in gates I, A
Resolution		0.5 % or 0.2 dB				
Data memory		50 data sets	280 data sets	150 data sets	280 data sets	100 data sets
Data identification		8 characters alphanumeric				
Quick store		yes				—
Thickness Data Logger		—				1200 readings
Tolerance monitor		—				yes
Display freeze (A-scan)		static, dynamic, averaged (8 shots)				average adjustable (2-16 shots)
A-scan compare		—	yes			
Outputs: RS 232	Baud	300 - 19200				
RF		yes				
Rectified signal		—				yes
Gate alarms (TTL and switching output)		yes				
Data invalid		yes				
Analog time-of-flight/amplitude for each gate at PRF		yes				
Link interface		—	16 bit time-of-flight and 8 bit amplitude at PRF, A-scan with 50 Hz			
Video		—	yes			option
Inputs		external trigger, test data release, alarm reset, A-scan freeze. load data set				
Dialog languages		German, English, French, Spanish, Italian, Portuguese				
Screen size (W x H)	mm ²	96 x 76	96 x 76	192 x 96	96 x 76	192 x 96
	inch ²	3.8 x 3	3.8 x 3	7.6 x 3.8	3.8 x 3	7.6 x 3.8
A-scan resolution	pixel	320 x 256	320 x 256	512 x 256	320 x 256	512 x 256
Power supply		integrated power supply/charger unit			integrated power supply unit	
Battery type		12 D-cells (AlMn) or NiCd battery pack			—	lead storage battery pack
Operating time	h	max. 6			—	> 8
Rated supply voltage	V (AC)	85 - 264				
Operating temperature	° C	-5 to +55				-17 to +55
	° F	23 to 131				0 to 131
Dimensions (H x W x D)	mm ³	138 x 238 x 319		192 x 366 x 343	132 x 483 x 406	192 x 366 x 343
	inch ³	5.4 x 9.4 x 12.6		7.6 x 14.4 x 13.5	5.2 x 19 x 16	7.6 x 14.4 x 13.5
Weight without battery	kg	5.6		8.6	8.3/12.8	9.2
	lb.	12.3		19	18.3/28.2	20.3
with battery	kg	7.2		10.3	—	13.2
	lb.	15.9		22.7	—	29.1

We offer a wide range of accessories for all instrument versions (according to quotation text or price sheet).