ARIES
INGENIERIA Y SISTEMAS, S.A.

ARIES LASER VIBROMETER VELA

TECHNICAL SPECIFICATIONS VELA SP

General

Dimension [L×W×H]	HEAD		CONTROLLER	
	305 mm x 173 mm x 150 mm	12 in x 6.8 in x 5.9 in	360 mm x 435 mm x 132 mm	14.2 in x 17.1 in x 5.2 in
Weight	HEAD		CONTROLLER	
	5.5 kg	12 lb	9.5 kg	21 lb
Power	220/110 V AC (50/60 Hz)			
Optical system	Heterodyne Interferometer			
Laser safety	Visible beam class II He-Ne laser, <1mW, eye-safe			
Beam Size	100 µm at 1m		300 µm at 3m	
Operating temperature	+5°C to +40°C (+41°F to +104°F)			
Storage temperature	-10°C to +65°C (+14°F to +149°F)			
Relative humidity	Max. 80%, non condensing			
Compliance with standards	EMC	LASER SAFETY	CE MARK	
	IEC/EN61326	EN60825-1		
Protection rating	IP 64 (dust and spray water protected)			
Controller Display	Iluminated graphics LCD with menu assistance			
Surface reflectivity enhancement	Not generally required			
Optional	Upgradeable to scanning vibrometer VELA SD			

Laser Radiation.
Do not stare into beam
Class 2 Laser Product
According to EN 60825-1 (2001)
P ≤ 1 mW/cw; λ = 620-700 nm

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Measurement

Sample size	Several mm^2 up to m^2				
Maximum Velocity (mm/s)	2530				
Frequency range	0.01 Hz to 40 kHz				
Low Pass Filters (KHz)	1	5	10	20	50
Amplitude measurement (nm)	3				
Maximum Acceleration (m/s^2)	635000				
Velocity ranges (mm/s)	±30	±150	±300	±1200	±2400
	±30	±150	±300	±600	±2400
Scaling factor (mm/s/V)	3	15	30	120	240
	3	15	30	60	240
Velocity resolution (µm/s)	0.5				

Output	ANALOG OUTPUT		DIGITAL OUTPUT	
	Type of signal	Velocity	Connector	PC DAQ Board
	Output voltage (max V)	10		
	Connector type	BNC	Frequency range	0 to 40 kHz
	Frequency range	0.01 Hz to 40 kHz		
	Dynamic Range	>80 dB		

Working distance	0.1 m to 30 m. Longer distances available depending on the test (eg. 200 m)	
Software	FFT calculation	
Accesories	Transport Case	Tripod with gear head
	PC	Battery and charger
Exporting formats	UFF export data	