

Mobius Data Sheet

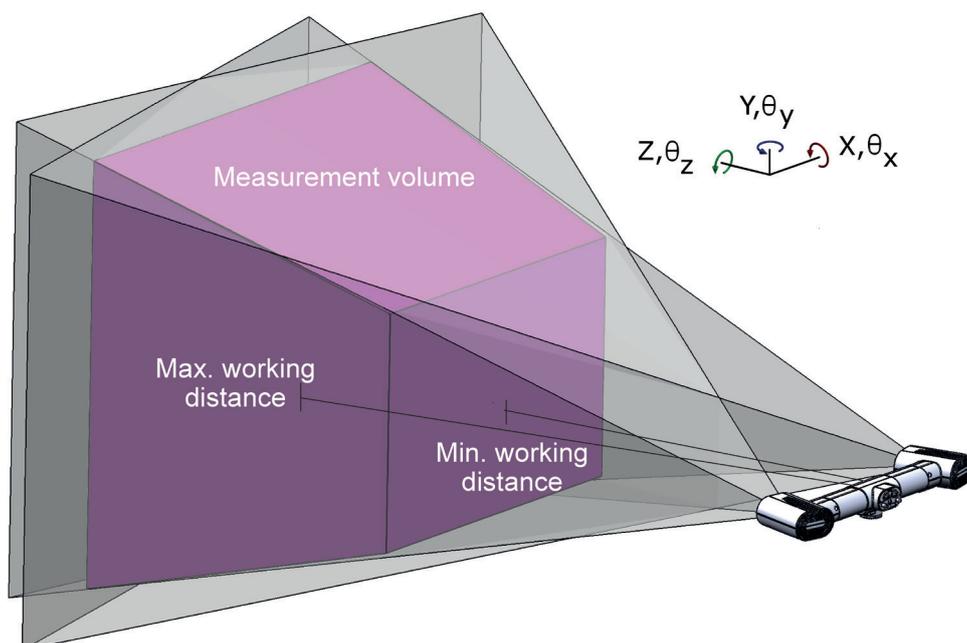
Mobius represents the culmination of many years of development in Imetrum's three-dimensional displacement measurement capability and combines class leading accuracy and resolution with the most data rich output of any 3D Digital Image Correlation system on the market today.

Mobius is available in four standard configurations.

Product Code	Camera separation mm	Volume ¹ (W x H) mm	Min. and max. working distance mm	Resolution ² µm			Approx. target size mm
				X	Y	Z	
IM-M-1000-05	600	Min: 897 x 718 Max: 1168 x 1275	1300, 2300	0.8 ↓ 1.4	0.8 ↓ 1.3	3.8 ↓ 6.7	15.0 ↓ 26.7
IM-M-1000-12	600	Min: 958 x 661 Max: 1325 x 1270	1100, 2100	0.5 ↓ 0.9	0.5 ↓ 0.9	2.1 ↓ 4.1	9.5 ↓ 18.2
IM-M-3000-05	800	Min: 2561 x 2122 Max: 4012 x 3802	3800, 6800	2.2 ↓ 3.9	2.2 ↓ 3.9	23.6 ↓ 42.3	43.6 ↓ 78.2
IM-M-3000-12	800	Min: 2697 x 1954 Max: 4559 x 3796	3200, 6200	1.4 ↓ 2.7	1.4 ↓ 2.7	13.4 ↓ 26.0	27.5 ↓ 53.4

¹Measurement volume tolerance +/-5% ² Accuracy typically better than +/- 0.3% of reading.

Above figures based on a 40x40 pixel target.



System Controllers

Mobius is offered with a choice of two System Controllers:



The SC-3 System Controller is our standard system and the most versatile. It's also the best choice if a mobile system is needed, for example for track testing. This will support one Mobius head and comes with 1TB M2 SSD storage as standard, with optional upgrades to add 2 x 2TB HDD or 2 x 4TB SSD for backup storage.

The SC-4 System Controller enables multiple Mobius heads to be used synchronously, based on a single co-ordinate reference frame. Advanced tools such as Rigid Body Motion correction (RBM) can be applied across multiple heads in real time without the need for a shared Field of View. See the table below for Standard and Extended recording times. The Standard System Controller comes in a 4U server rack case as shown but it can be converted into a tower if needed (all parts are included).

		SC-3			SC-4	
		1TB M2 SSD	4TB HDD	8TB SSD	Standard	Extended
Single Test Duration	1 X Mobius	10 mins	–	–	3 hrs	6 hrs
	2 X Mobius	–			1.5 hrs	3 hrs
	3 X Mobius	–			1 hrs	2 hrs
Test Archiving		–	40 mins	80 mins	Mirrors Above	Mirrors Above

All figures at full frame, resolution and capture rate.

Custom Mobius heads

Mobius comes with a range of Measurement Heads but if none of these is suitable, custom 3D Measurement Heads are also available for different geometries, greater out-of-plane measurement resolutions or faster measurement rates. We also design and construct custom solutions. For example, multihead systems have already been permanently embedded in industrial wind tunnel installations.

Please contact your Imetrum representative for assistance in specifying the right system for you.

Accessories

Each Mobius is supplied with a range of accessories including a range of marking solutions with instructions for use. Tripod and geared heads as well as other mounting solutions are available.

