

Technical Specification - Force Tensiometers - Sigma

	Sigma 700	Sigma 701	Sigma 702	Sigma 702ET	Sigma 703D
Available Measurements					
Surface tension	✓	✓	✓	✓	✓
Interfacial tension	✓	✓	✓	✓	✓
Critical micelle concentration	Automatic	Automatic	Manual	Manual	Manual
Dynamic contact angle	✓	✓	x	x	x
Surface free energy	✓	✓	x	x	x
Powder wettability	✓	✓	x	x	x
Density	✓	✓	✓	✓	✓
Balance Specifications					
Measuring range (mN/m)	1 - 2000	1 - 1000	1 - 1000	1 - 1000	1 - 1000
Displayed resolution (mN/m)	0.001	0.001	0.01	0.01	0.01
Density range (g/cm ³)	0 - 2.2	0 - 2.2	0 - 2.2	0 - 2.2	0 - 2.2
Density resolution (g/cm ³)	0.0001	0.0001	0.0001	0.0001	0.0001
Maximum load (g)	210	5	5	5	5
Weighing resolution (mg)	0.01	0.005	0.01	0.01	0.01
Force resolution (µN)	0.1	0.05	0.1	0.1	0.1
Contact angle range	0 - 180°	0 - 180°	x	x	x
Contact angle resolution	0.01°	0.01°	x	x	x
Calibration & locking	Automatic	Manual	Manual	Manual	Manual
Measuring Unit Specifications					
Sample stage	Motorised	Motorised	Motorised	Motorised	Manual
Sample stage speed (mm/min)	0.01 - 500	0.01 - 500	0.01 - 500	0.01 - 500	x
Stage movement range (mm)	0 - 75	0 - 75	0 - 75	0 - 75	x
Stage positioning resolution (mm)	0.015	0.015	0.03	0.03	x
Dimensions (mm)	L 333 x W 244 x H 620	L 333 x W 244 x H 620	L 333 x W 244 x H 620	L 333 x W 244 x H 620	L 275 x W 155 x H 392
Weight (kg)	16.3	13	10.7	10.7	4.9
Power supply (V a.c.)	85 - 264	85 - 264	85 - 264	85 - 264	100 - 240
Power consumption (W)	13	13	13	13	7
Frequency (Hz)	47 - 440	47 - 440	47 - 440	47 - 440	50 - 60
Common Accessories					
Temperature control mechanism	Range of water bath accessories	Range of water bath accessories	Built-in thermostatic vessel for water bath	Built-in thermostatic vessel for water bath	Range of water accessories
Temperature range (°C)	-20 to +200	-20 to +200	-10 to +100	-10 to +100	-10 to +100
Stirrer	✓	✓	x	x	x
Software	Module based	Module based	Data collection	Oil-water	Data collection
System requirements					
Recommended system requirements	2 GHz processor, 2 Gb RAM, 100 Gb hard disk drive (40 Gb free), 1280 x 1024 resolution, 1 RS-232 port				
Minimum system requirements	1 GHz processor, 512 Mb RAM, 40 Gb hard disk drive (20 Gb free), 1024 x 768 resolution				
Operating system requirements	Windows XP SP2 (32 bit), Windows Vista Home SP1 and Home Premium SP1, Windows Vista Ultimate (32 bit) SP1 and Business SP1 (32 bit), Windows 7 (32 bit)				

For further details please call our Sales Team now on: +44(0)1543 411460