Specifications

General

Modes of operation:
Direct strain control. Shear rate control. Shear stress control.

Torque range:
1.0nNm to 250mNm. (Viscometry - Controlled Rate and Controlled Stress)

Torque range:
0.5nNm to 250mNm. (Oscillation - Controlled Strain and Controlled Stress)

Torque resolution:
0.05nNm.

Position resolution:
<10nrad.

Angular velocity range:
1nrads-1 to 500rads-1

Step change in strain:
<10ms.

Frequency range:
6.28µrads-1 to 942rads-1 (1µHz to 150Hz).

Motor inertia:
12µN.m.s2.

Normal Force range:
0.001N to 50N.

Normal Force resolution:
0.5mN.

Normal Force response time:
<10ms.

Vertical lift speed:
0.1µms-1 to 35mms-1

Vertical lift range (measurable):
230mm.

Gap resolution (over full vertical lift range):
0.1µm

Fully configurable vertical profiles:
By speed and by Normal Force.

Raw instrument variables:
5kHz constant streaming data.

Complete sample history:
Data available from loading to unloading as standard.

Interface:
USB2 – plug and play.

Quick-connect geometries:

Auto-identification and auto-configuration – plug and play.

Interchangeable lower plates:

Varying pedestal diameters and surface finishes.

Cartridge environmental controllers:

Auto-identification and auto-configuration – plug and play.

Temperature range:

-40°C to 200°C (Peltier plate and active hood cartridges). -30°C to 200°C (Peltier cylinder cartridge). ambient to 350°C (High temperature cartridge).

Temperature resolution:

0.01°C.

Dimensions (W, D, H):

490mm (W) x 485mm x 680mm

Weight:

47kg.

Power:

110V or 220V.

Operating temperature (°C):

15°C – 40°C.

Humidity:

35% - 80% non-condensing.

Note:

Specifications have been obtained under conditions as stated in the Installation and Site Requirements for Kinexus rheometers