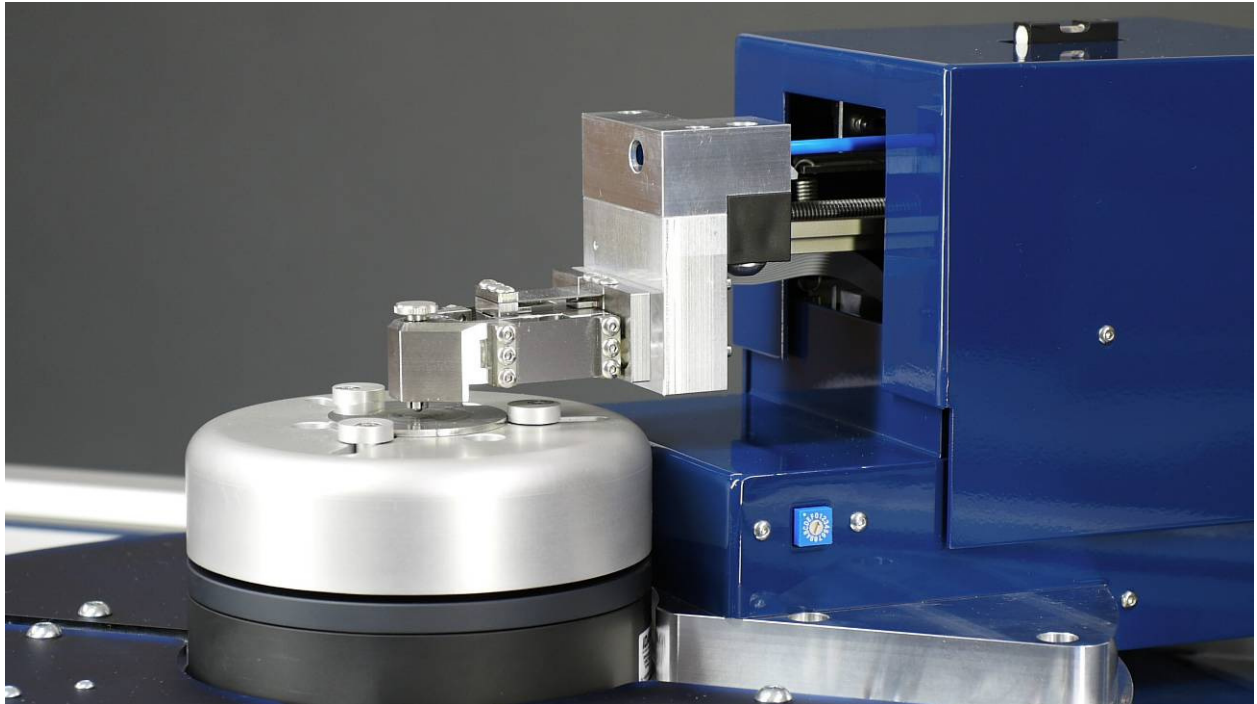


Product Information DS4-POD



DS4 - The New Test Machine Generation

When your requirements are changing, your tester changes with them.

One Base – Multiple Tasks, Efficiency, Precision and Flexibility

Control units and versatile modules combine to build multi station experiments and in situ characterization on a single platform. No more need to move specimens from tester to characterization system.

The open platform concept allows customization and expansion from a single test system to a multi-tasking tester and characterization system.

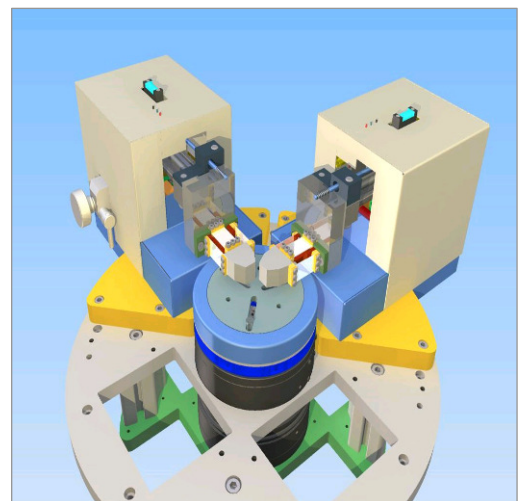
The modularity makes it easy to adapt force ranges, specimen geometry and experiment types.

Experiments :

- Friction, wear and lubricant testing
- Tribocorrosion
- Surface integrity
- Adhesion

Characterization :

- Profilometry
- Microscopy
- Chemical or electronic analysis



Application Fields

- Material and surface analysis
- Lubricants and additives
- Polymer development
- Tribocorrosion
- Bio materials

Key Words

- Coatings and surface modification
- Static Friction Coefficient
- Texture and roughness
- Scratch resistance
- Dynamic Friction
- Stribeck curves
- Wear rate
- ASTM G 99 - G 204 – G 133

Benefits

Only the best is good enough

The DS4 range is developed around the best sensors and drives available in their class. Good data depends first and foremost on the quality of sensors and drives, so no costs are spared to provide

the user with the best possible precision, performance and repeatability.

Time is money

Using the DS4-POD you save time and create more and better data. Sample holders and software are developed with user friendliness and efficient testing in mind. The 4-station frame can hold up to 4 different modules so any any combination of parallel testing and in line characteriza-

tion tools - profilometry, microscopy - ... can be made. Test as well as characterization operations are programmed by a sequencer and then executed automatically, generating multi-data from one set of materials.

DS4 stands for:

Drives:

- superior motion system for rotation or oscillation
- high resolution positioning

Sensors:

- highest precision
- low noise
- optimized sensor ranges

Stations:

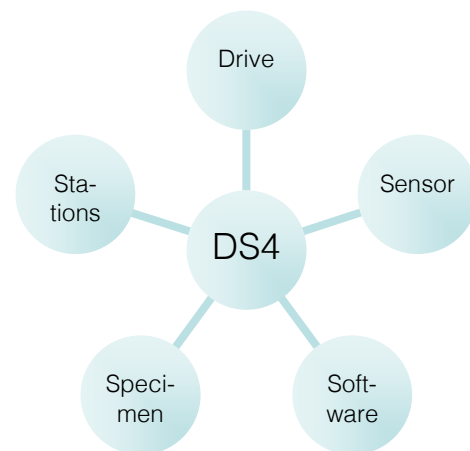
- up to 4 tests and/or characterization tools
- sequential and parallel operation

Sample Holder:

- rapid and efficient sample exchange systems for balls, pins cylinders, pads and discs

Software:

- Modular experiment build up and data visualisation
- LabVIEW® interfaces for customised data treatment



Intuitive Software

The easy way to perform unidirectional and oscillating experiments: TETRA DS4 POD

Experiment results are stored in two different ASCII-files: one for raw data (per cycle) and one 1000 point file as a running average.

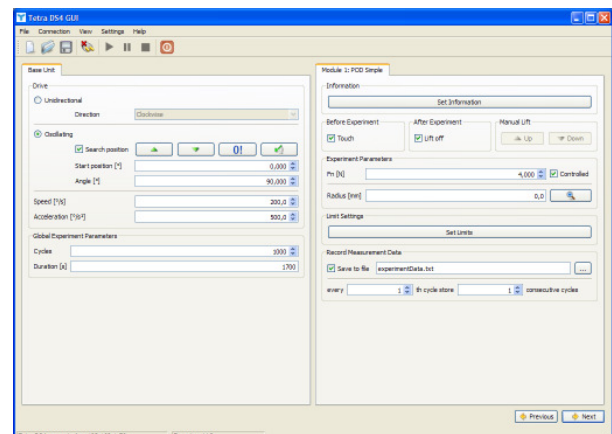
Multiple parallel or sequential experiments are programmed with a sequencer, by setting up the individuals one by one.

Also available:

LabVIEW® DLL to program your own experiments according to your special needs.

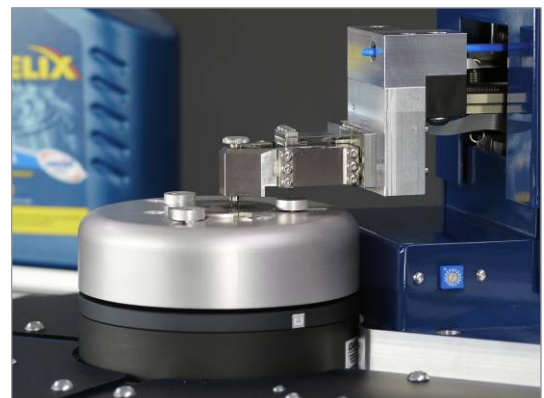
With the comfortable software system, you set up standard experiments step by step with useful options such as user defined limits or free scalable online cycle and historic graphs.

LabVIEW® DLL for own on line data treatment



Technical Parameters

2D-Force Measurement	
Normal force	10N (100N) resolution 2,4 (24) mN, automated loading
Tangential force	±10N (100N) resolution 2,4 (24) mN
Direct Drive	
Rotation speed range	0.05 to 450 rpm
Torque	3Nm
Real time data acquisition	All force and position signals synchronized Sample rate 1kHz
Experiment Software (GUI)	On separate PC via TCP/IP interface
Options	<ul style="list-style-type: none"> • Cover with ambient condition measurement • Oil pan
Control	Integrated Compact Master PC and EtherCAT® field bus



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