

COMPONENT LIFE CYCLE DURABILITY WITH FORCE AND STROKE FEEDBACK



why choose innkeeper?

At Innkeeper, our solutions are not chosen from a catalog page. We support your individual criteria by adapting hardware and software to meet unique testing requirements. We will work together to find an appropriate and cost-effective solution to meet your needs.

Innkeeper specializes in modular control systems, including retrofits and the equipment required for strength, durability and performance testing.

Cost effective manual durability testing with eight single-ended or four double- ended pneumatic actuators.

Using pneumatics instead of servo-actuators is a cost alternative when applying simple loads and displacement of components. Test sequences can be built allowing for high cycle durability testing with single point control of force and displacement.

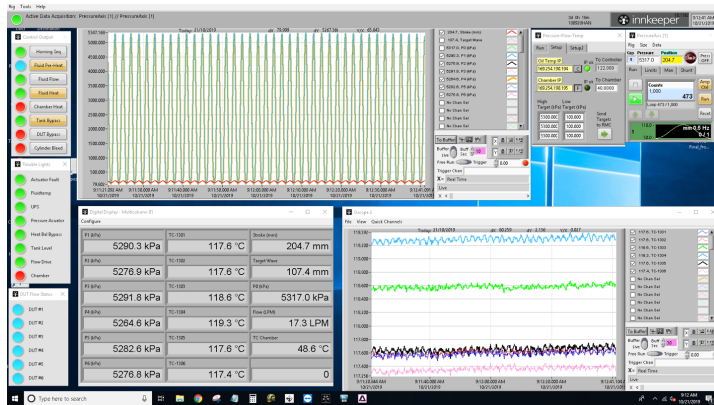
Useful for:

- Seat Folding durability, Seat Back Fatigue, Cushion Durability, Knee Load, Headrest Durability, Recliner Durability.
- Reading and reacting to switches, force, displacement, cycles, time, and any other connected transducer.
- Acquiring all signals and storing all data to drive disk. MicroMaster combines machine control with built in data acquisition.
- Controlling peripheral components by way of programmable analog outputs.
- The InnControl User Interface (UI) along with our "MicroMaster" Test Sequencer provides an easy and efficient means to set-up the test parameters, calibrate force and displacement, define limits, and define the test cycles.
- This test controller has access to all standard InnControl software features including full data acquisition, sequence control, manual control, real-time graphical displays and numerical displays, calibration, transducer database, safety limits, and SMS notifications.



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customer responsibilities

- Unpack the components and move to the final location within the test lab.
- Provide any required building utility connections to the machine, 80psi clean air, etc.
- Test Specimen Fixturing (Unless explicitly provided by Innkeeper).
- Connection wiring from Device Under Test (DUT) to the control drawer mating connectors.
- Application of all appropriate specimen power protection limits.
- Customer can optionally provide their own PC, monitor, mouse, keyboard. Required specifications are VESA mount monitor, and separately mounted/installed (by Customer) PC with Win10Pro software (not higher than 10), and PC with minimum i7 CPU, 16GB RAM, 1TB SSD. Customer is responsible for all PC software installation and operation issues.

scope of supply

- PC with InnControl test control suite, including UI for MicroMaster Sequential Programmer and full data acquisition.
- 19" 5U Drawer with custom built electronic components.
- Rolling 19" Control Console, 18U height, removable sides, hinged front/back doors.
- Two sets of 4 solenoid pneumatic manifolds internally (or externally) mounted. 5-2 valves with spring return for On/Off, or 5-3 valves with spring return for Forward/Off/Reverse.
- Pressure regulator for facility air input.
- Articulating monitor arm, 24" monitor, wired keyboard and mouse.
- Uninterruptable Power Supply (UPS), 120VAC, 500VA for computer.
- Full cable interconnection set with flying lead end to customer components.
- Remote ESTOP button, 20ft cable.

scope of connections and channels

- 8 Transducer inputs (4 dedicated load cell inputs, 4 dedicated displacement inputs)
 - 4 Load Cell Inputs, Wheatstone bridge conditioner/ amplifier hardware sets up to $\pm 4\text{mV/V}$ input.
 - 4 Displacement Inputs. 4 @ $\pm 10\text{vdc}$, 2 @ $\pm 50\text{vdc}$.
- 4 Digital Limit switch inputs, mechanical or 24vdc PNP proximity.
- 2 Analog Output, $\pm 10\text{v}$ dc outputs available for remote peripheral control, up to 15mA current.
- 16-bit resolution for all transducer inputs.
- Custom configurations are possible for both test hardware and for software functionality.