External monitoring and controlling package for endurance testing of planar and linear objects including Flexible Displays, OLED devices, Barrier Film, Flat Cables, Flexible Printed Circuits, Wearables & automobile applications

Allows programmed control of endurance testing machines

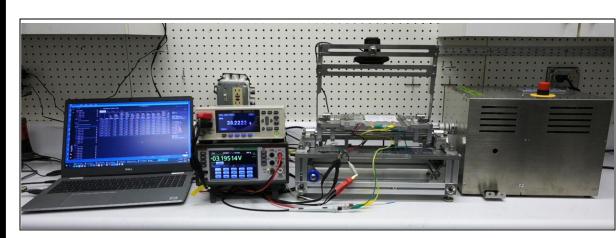
Measures resistance, voltage, temperature, and humidity during testing.

Compatible Meters: Hioki RM3545-2 with Z3003 Mux Keithley DAQ6510 with 7710 Mux DMM6500 front panel

Live Camera Monitoring

Cloud based storage with Live Camera Monitoring

# Environmental Endurance Testing System Flexdata Control Package with Data Analytics



# Flexdata

The Flexdata platform optimizes Yuasa Systems continuous mechanical endurance testing machines for passive, in-mold, 3D and flexible products in both ambient and hostile conditions. Flexdata Basic enables easier set-up and control for repetitive and similar testing conditions. With Flexdata Premium services, limited remote control, remote video system monitoring, multi-location, multi-level data collaboration, compatibility with advanced digital microscopes, and optional optical and analytics software packages are possible.

With a Windows PC, Flexdata synchronizes motor drive data with external data taken from electronic meters and webcam images and records all data for easier access and analysis.

Flexdata can be used to take measurements of resistance, voltage, temperature and humidity during endurance testing, and to gather snapshots of the sample during the measurement. Cameras can monitor the test with live video. Flexdata can control the testing machine with the users' laptop, setting the number of operations, the speed and timing. The data is stored in a Cloud which can be monitored in remote locations, including the live video.

Flexdata is an enhanced version of the original External Controller Package (ECP):

- Can use Keithley DAQ6510 with 7710 mux, or Keithley DMM6500 front panel only, or Hioki RM3545-2 with Z3003 mux, alone or all at the same time
- Can run more than one motor at a time
- Graphical representation of test speed and measured values during test
- Automatically connects to motors and meters and cameras after initial setup
- Measures at either end or middle of test cycle giving DMLHB the measurement position capability of the DMLHP



YUASA YUASA SYSTEM CO., LTD.

## Environmental Endurance Testing System Flexdata Control Package with Data Analytics

External monitoring and controlling package for endurance testing of planar and linear objects including Flexible Displays, OLED devices, Barrier Film, Flat Cables, Flexible Printed Circuits, Wearables & automobile applications

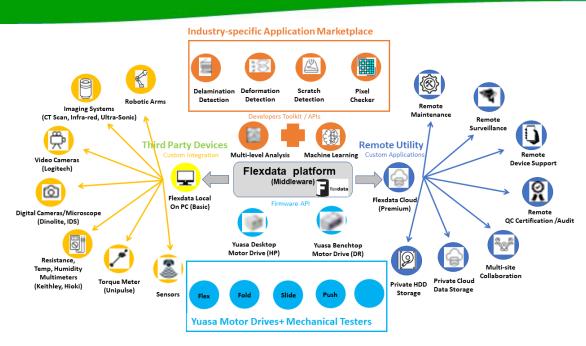
Allows programmed control of endurance testing machines

## Measures resistance, voltage, temperature, and humidity during testing.

Compatible Meters: Hioki RM3545-2 with Z3003 Mux Keithley DAQ6510 with 7710 Mux DMM6500 front panel

Live Camera Monitoring

Cloud based storage with Live Camera Monitoring



#### Flexdata can work with the following Base Unit / Test Jig combinations

| Test Jigs /<br>Base Units | P150 | C*BR | тw  | FT  | CS  | FS  | FS-C | FU  | 4U  | FR  | PP  | ST  |
|---------------------------|------|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| DMLHB*                    | Yes  | Yes  | Yes | Yes | -   | Yes | Yes  | Yes | Yes | Yes | Yes | Yes |
| DMLHP                     | Yes  | Yes  | Yes | Yes | Yes | Yes | Yes  | Yes | Yes | Yes | Yes | Yes |
| DMLHP+                    | Yes  | Yes  | Yes | Yes | Yes | Yes | Yes  | Yes | Yes | Yes | Yes | Yes |
| DR11MR Family             |      |      |     |     | Yes |     |      |     |     |     |     |     |

\* DMLHB -- Normal setup for testing slows to 10 rpm one cycle before the measurements. At the Target Count the DMLHB pauses and the measurements are made, then the DMLHB continues. Measurements can be made with the sample flat or flexed or midway between the two using the Flexdata DMLHB setup Template.

### Flexdata Control Package

| test machines + control + data capture 8 | & analytics + cloud storage + remote viewing |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|
|  |  |  |  |  |  |  |  |
| PC Specifications                        |  |  |  |  |  |  |  |
| OS (Required)                            | Windows 7 / 8 / 10                           |  |  |  |  |  |  |
| OS (Recommended)                         | Windows 10 (32bit / 64bit)                   |  |  |  |  |  |  |
| Resolution (Required)                    | 1366 x 768                                   |  |  |  |  |  |  |
| Resolution (Recommended)                 | 1920 x 1080                                  |  |  |  |  |  |  |
| CPU Clock Rate                           | 1 GHz or more                                |  |  |  |  |  |  |
| Memory (Required)                        | 512 MB or more                               |  |  |  |  |  |  |
| Memory (Recommended)                     | 8 GB or more                                 |  |  |  |  |  |  |
| Free Space                               | 30 MB or more                                |  |  |  |  |  |  |
| Communications (Recommended)             | USB 3.0                                      |  |  |  |  |  |  |
|  | RJ-45 ≥ GbE                                  |  |  |  |  |  |  |
|  | Internet ≥ 25 Mbps                           |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Resistance Meter                         | Hioki RM3545-2 + Z3003                       |  |  |  |  |  |  |
| Flexdata Measurements                    | Resistance (2-wire)                          |  |  |  |  |  |  |
|  | Resistance (4-wire)                          |  |  |  |  |  |  |
| Channels                                 | 10 (more optional)                           |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Data Acquisition Multimeter              | Keithley DAQ6510 + 7710                      |  |  |  |  |  |  |
| Flexdata Measurements                    | DC Voltage                                   |  |  |  |  |  |  |
|  | Resistance (2-wire)                          |  |  |  |  |  |  |
|  | Resistance (4-wire)                          |  |  |  |  |  |  |
|  | Temperature (Type K Thermocouple)            |  |  |  |  |  |  |
|  | Humidity (Requires Optional Sensor)          |  |  |  |  |  |  |
| Channels                                 | 10   |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Digital Multimeter                       | Keithley DMM6500                             |  |  |  |  |  |  |
| Flexdata Measurements                    | DC Voltage                                   |  |  |  |  |  |  |
|  | Resistance (2-wire)                          |  |  |  |  |  |  |
|  | Resistance (4-wire)                          |  |  |  |  |  |  |
|  | Temperature (Type K Thermocouple)            |  |  |  |  |  |  |
| Channels                                 | 1  |  |  |  |  |  |  |

YUASA YUASA SYSTEM CO., LTD.



## US SERVICES AVAILABLE

Online training

Technical support

Installation & set-up

Maintenance

**Guaranteed Warranty** 

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www.yasa-system.jp/en

