

## **M2F CONTROLLER**

### **Description**

M2F controller is advanced and multiple planning controller for material testing, which can analyze load cell, torque sensors, pressure sensors, encoder and so many varieties of signals.

Every kind of units can be changed according to user's demand when using it.

It has real-time display or record process data in short time, data can be restored through USB port and exported to EXCEL sheet for further analysis by USB. Specified software can be an option for proceeding with further analysis and also open for users to write their own software. When customer has a special requirement, it also could be modified to new planning based on their needs.

#### Appropriate using occasion

Simple material testing device, various forces display, teaching analysis, data measurement for industries

## **Appearance**



# **Specification**

| M2F Series                 |  |
|----------------------------|--|
| Power<br>force(DC)         | 5V and 12V (50W)   |
| Control signal input       | Four sets of input signal for selection Two sets of stress sensor: 4~20mA Two force sensor: 1.0mV/V, 1.5 mV/V, 2.0 mV/V, 3 mV/V, 4 mV/V  |
|                            | (Internal + External) Four sets of Encoder signal input  |
|                            | Input signal: upper limit, lower limit, emergency stop, goes up, go down, set aside two sets.  |
| Expand D-Sub               | Input signal: 4 sets, output signal: 4 sets  |
| Communication<br>Interface | TCP/IP RJ45 Connecting Cable   |
| Load cell<br>Resolution    | 31 bits  |
| Load cell<br>precision     | 1/100,000  |
| Encoder signal voltage     | 5V   |
| Encoder signal voltage     | Single-ended (Open Collector) \( \) differential square wave(Line Driver)  |
| Display panel              | 7 inch of TFT Color touch panel  |
| Language<br>selection      | Chinese, English, Japanese   |
| Data assess                | Can use USB to proceed with data access (can export test data to Excel for further data analysis)  |
|                            | Specified software is optional for data access   |
| Data sampling rate         | 2, 5, 10, 25, 50, 100, 400, 1200Hz   |
| Interface<br>function      | Data display: Force, Stress, Torque, Displacement, Time  |
|                            | Graph display: Force, Displacement, Time, Stress, Strain   |
|                            | Date Analysis: Maximum force, deformation percentage at maximum force point, stress at maximum force point, percentage of elongation at maximum force point, force at break point, deformation percentage at break point, stress at break point, percentage of Elongation at specified break point, interval average load, Max. Force and so on.  Unit changeable (Metric system or imperial system) |
| Calibration                | Calibrated parameter setting can be provided   |
| setting                    | Can be used on various capacity of load cell and no need to recalibration after replacement.   |

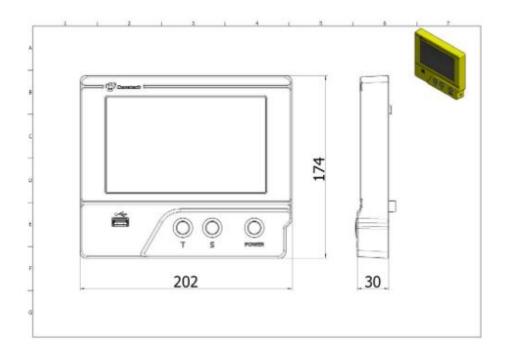
# **Optional**

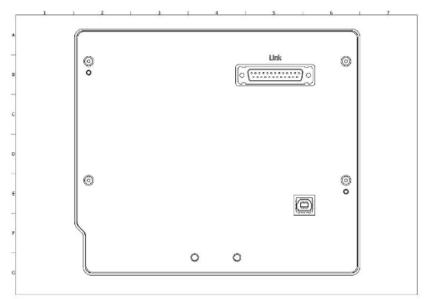
# (1) Display: Appearance





# (2) Display Dimension

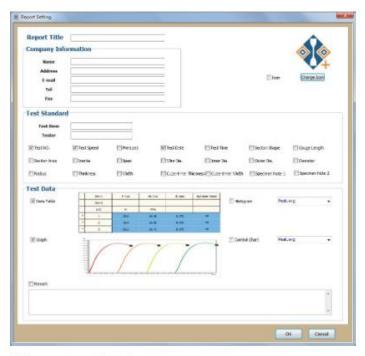




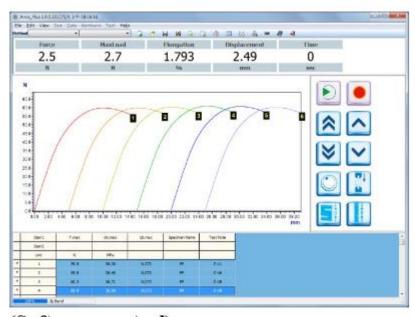
## **Software Function**

- Data sample rate faster can be set up to 1200 Hz
- Operation method: By keyboard and mouse control test, can also through up and down button to adjust the fixture position
- Compatible with Windows 7/8/10 system
- Software has multi-languages with Chinese, English, Japanese, Korean, Spanish and German display
- Operating mode: TCP / IP interface, two-way transmission, the computer directly control the machine action
- Can import multiple test data display simultaneously.
- Unit selection can be Metric unit and Imperial units.
- Form flexibility, self-planning information analysis.
- Data name can be self-set and can self-defined formula
- Test Screen can be selected data display, graphic display or simultaneous display
- Data processing: store, import, list, statistical comparison, etc.
- © Graph X-Y axis physical quantity adjustment, graph-specific mark, interval mark, slope and son on.
- Test tensile, compression, bending, peeling, spring, creep and other tests
- O Software protection: Overload, over -displacement, over-time protection
- Variety of test actions, ex. Defined test, reciprocation, creep, hold tensile (compression), test pause, Deformation switch, foam test etc.
- Modularization of specimen setting, providing easy to set specimen.
- Modularization of test conditions to reduce artificial setting negligence and error.
- Key data capture, can set the upper and lower limits of test data specifications
- Support multiple sets of I / O signals, increase testing mechanism

## Software



# (Report setting)



(Software control)

## **Related Products**

- 1. QC-505M2F 50kN of Computerized material testing machine
- 2. QC-506 M2F 20kN of Computerized material testing machine
- 3. QC-508 M2F 5kN of Computerized material testing machine
- 4. QC-513 M2F 5kN of Computerized material testing machine
- 5. QC-536 M2F 10kN of Computerized material testing machine
- 6. QC-557 Short extensometer
- 7. QC-515 Long extensometer
- 8. All kind of grips

\*Cometech reserves ultimate modification right of product specification.





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