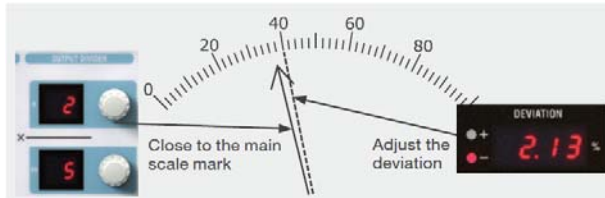


Calibrating and testing analog meters

Using the output divider and deviation

Calibrating two or more points is quick and simple.

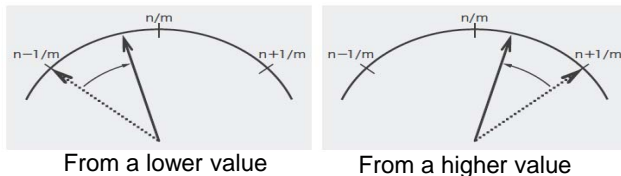
It is only necessary to preselect the number of required calibration points with the lower divider control and then use the upper control to step the output to the next calibration point. The deviation settings will then enable the output value and error of each calibration point to be displayed directly.



Using the output divider and deviation preset

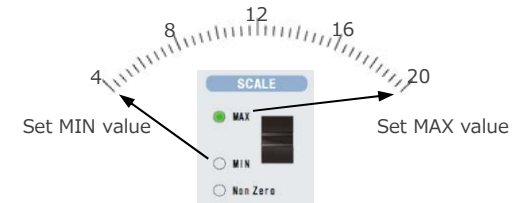
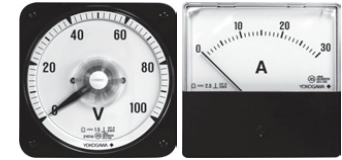
The deviation preset control can be used to move the output value in small increments (2 or 5% of the step between calibration points).

This means that it is possible to finely approach the target calibration point, either from a lower value or a higher one, without exceeding it. This is particularly useful when the friction (hysteresis) of the moving part needs to be taken into consideration. In this case the point is calibrated twice, once from a lower value and once more from a higher value and the final calibration result is the average of the two.



Using the scale setting

The scale setting is particularly useful when calibrating zero suppressed meters. The generated values are Swept and divided within the range of the MAX and MIN values set by the user.



Using sweep

Needle sticking tests can be performed with high repeatability. It is possible to stop at any point and sweep around it in fine detail.

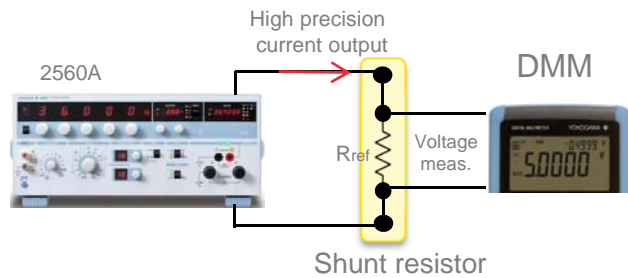


Calibrating and testing shunt resistors

Wide range of current output and high accuracy

In the high resolution mode up to 6.5 digits, it can test and calibrate shunt resistors and standard resistors.

- Current range: 100 μ A to 30 A
- Current accuracy: ± 70 ppm High precision



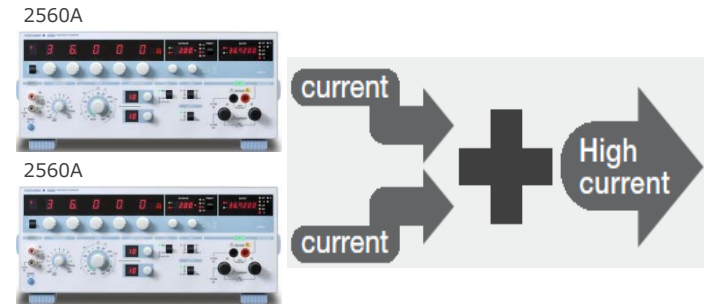
Shunt resistors



Supporting from small to large current output

The 2560A can output from 1 μ A to 73.44 A because two 2560As can be connected in parallel to double the output.

* The accuracy, stability and temperature coefficient errors are twice those for one unit.



Calibrating and testing temperature meters, temperature controllers and temperature transmitters

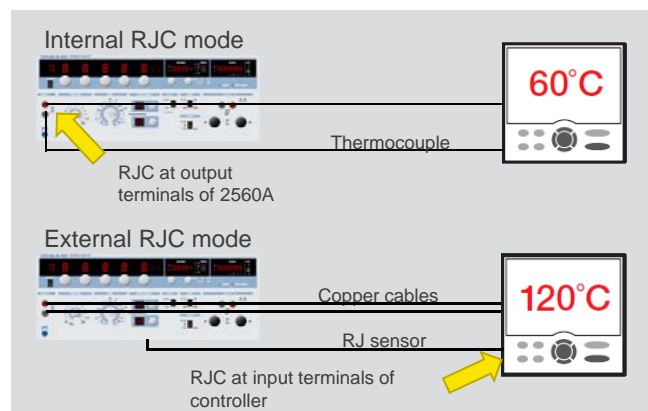
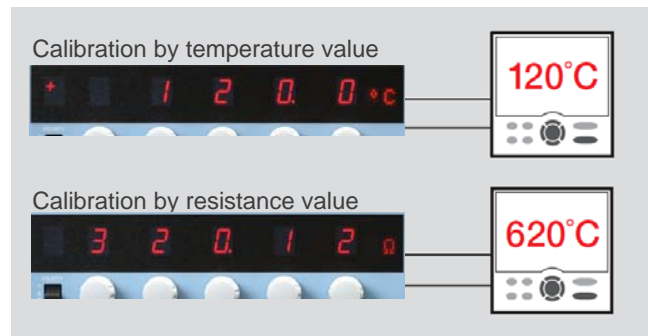
10 types of thermocouples and Pt100

The 2560A can calibrate and test temperature meters, temperature controllers and temperature transmitters which use thermocouples and RTDs. 10 types of IEC thermocouple are supported. By setting a temperature value, the emf(electro-motive force) equivalent to the temperature is generated. A wide range of temperature controllers can be calibrated due the high accuracy.

When using a Pt100 RTD, a set temperature value generates the equivalent resistance value. Calibration using the resistance value can also be performed by setting resistance instead of temperature.

RJC at output terminals

The 2560A has 3 RJC (reference junction compensation) modes. The “internal RJC mode” uses the output terminals of the 2560A as the reference point. The “External RJC mode” enables the user to choose a suitable Pt100 as a versatile external sensor. The “Manual RJC mode” enables a reference value to be manually entered.



*Depending on functions of devices such as a special resistance temperature detector, high resistance, frequency, etc. some functions cannot be output and calibrated by the 2560A. For detail specifications, please refer to our product catalog.

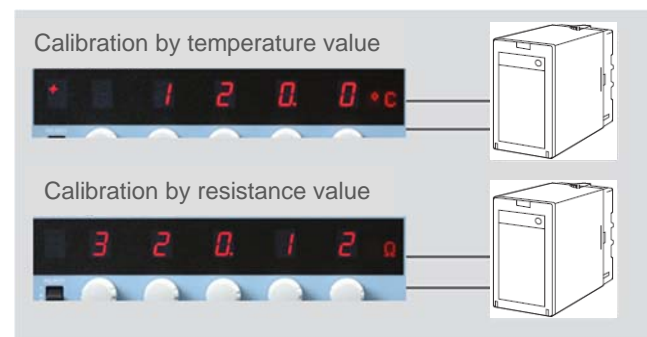
In the case of temperature controllers and temperature transmitters, the loop power source output (4 to 20 mA) is sometimes measured. This measurement requires a digital multimeter.

Calibrating and testing signal conditioners

10 types of thermocouples, Pt100 and analog signals

Signal conditioners input signals of sensors (temperature, pressure, flow rate, etc.) in field sites of measurement and control. The measurement functions of signal conditioners can be calibrated and tested by the value of temperature or resistance using analog signals (1 to 5 VDC, 4 to 20 mA), thermocouples or resistance temperature detectors.

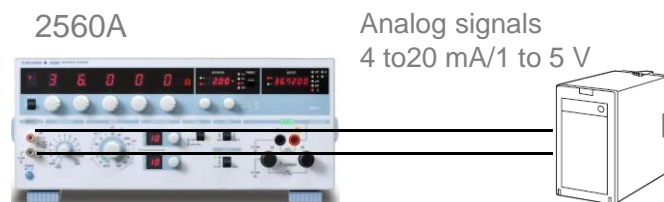
10 types of IEC thermocouple and Pt100 are supported. By the user definition function, the 2560A allows customers to define their special thermocouples and RTD(resistance temperature detectors) and performs output.



Wide range of current output and high accuracy

Output	Range	Major accuracy
Voltage	100 mV to 1000 V	±50 ppm *1
Current	100 μA to 30 A	±70 ppm *1
Thermocouple	100mV range	±40 ppm +4 μV *1
RTD;Pt100	-200 to 850°C	±0.1°C*1

*1: Accuracy (180 days)



*Depending on functions of devices such as a special resistance temperature detector, high resistance, frequency, etc. some functions cannot be output and calibrated by the 2560A. For detail specifications, please refer to our product catalog.

To measure output signals of a signal conditioner, a digital multimeter is required.

Calibrating and testing portable digital multimeters

Wide range of current output and high accuracy

In the high resolution mode up to 6.5 digits, it can test and calibrate digital multimeters, voltage meters and current meters.

*Sweep, divider, and deviation are not available in high resolution mode.

6.5 digits display example



Output	Range	Major accuracy
Voltage	100 mV to 1000 V	±50 ppm *1
Current	100 μA to 30 A	±70 ppm *1
Resistance	1 to 400 Ω	±68 ppm *1

*1: Accuracy (180 days)

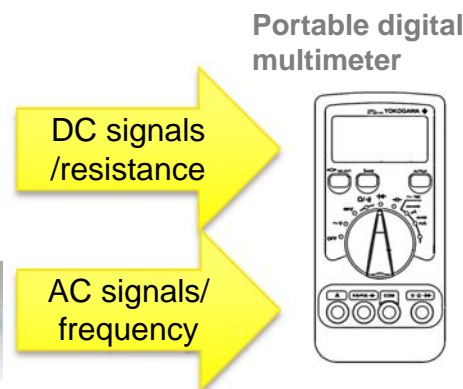
Combination of a DC device and AC device enables calibration on multi-function devices

- The 2560A supports from small voltage/current to high voltage/current. DC: High output (up to 1224 V and 36.72 A) is applicable.
- The 2558A supports AC voltage/current from 40 to 1000 Hz. AC: High output (up to 1200 V and 60 A) is applicable.

2560A



2558A



*Depending on functions of devices such as AC voltage/current, high resistance, frequency, etc. some functions cannot be output and calibrated by the 2560A. For detail specifications, please refer to our product catalog. For calibration, please check measurement functions and accuracy specifications of a digital multimeter to be used.

Calibrating and testing process calibrators

10 types of thermocouples and Pt100

The 2560A can calibrate and test process calibrators which use thermocouples and RTDs. 10 types of IEC thermocouple are supported.

Thanks to the user definition function, the 2560A allows customers to define their special thermocouples and RTD (resistance temperature detectors) and performs output.

The calibration/testing of the measurement function of process calibrators is available!

•The 2560A supports 10 types of thermocouples and Pt100; from small voltage/current up to DC 1224 V and 36.72 A is applicable. Calibration of various process calibrator is available.

Wide range of current output and high accuracy

Output	Range	Major accuracy
Voltage	100 mV to 1000 V	±50 ppm *1
Current	100 µA to 30 A	±70 ppm *1
Thermocouple	100 mV range	±40 ppm + 4 µV *1
RTD;Pt100	-200 to 850 °C	±0.1°C *1

*1: Accuracy (180 days)



*Depending on functions of devices such as special resistance temperature detector, high resistance, frequency, etc. some functions cannot be output and calibrated by the 2560A. For detail specifications, please refer to our product catalog.

*Since the 2560A only has the generation function, the measurement calibration of the generation function of process calibrators requires a highly accurate digital multimeter. For selection of digital multimeters, please refer to the accuracy specifications of process calibrators.

Calibrating and testing recorders

10 types of thermocouples and Pt100

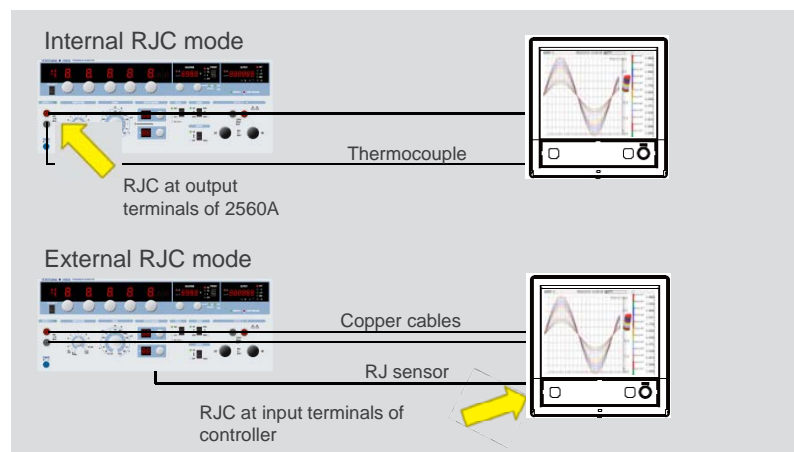
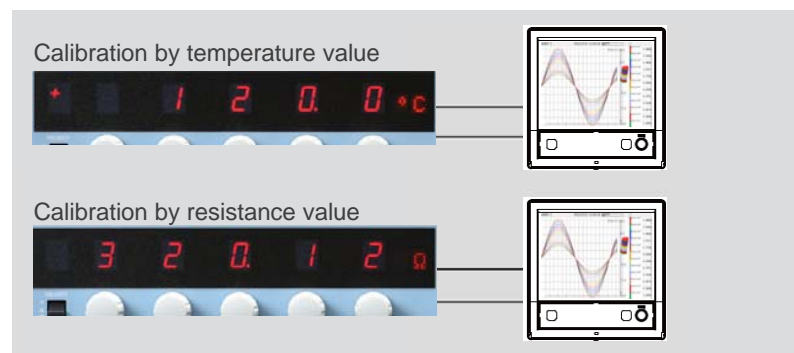
The 2560A can calibrate and test recorders and data loggers which use thermocouples and RTDs. 10 types of IEC thermocouple are supported. By setting a temperature value, the emf (electro-motive force) equivalent to the temperature is generated. A wide range of temperature controllers can be calibrated due to the high accuracy.

When using a Pt100 RTD, a set temperature value generates the equivalent resistance value. Calibration using the resistance value can also be performed by setting resistance instead of temperature.

In addition to the temperature input, the input range of DC voltage (maximum 1224 V) and DC current (maximum 36.72 A) of the recorder can be calibrated and tested.

RJC at output terminals

The 2560A has 3 RJC (reference junction compensation) modes. The “internal RJC mode” uses the output terminals of the 2560A as the reference point. The “External RJC mode” enables the user to choose a suitable Pt100 as a versatile external sensor. The “Manual RJC mode” enables a reference value to be manually entered.



*Depending on functions of devices such as special resistance temperature detector, high resistance, frequency, etc. some functions cannot be output and calibrated by the 2560A. For detail specifications, please refer to our product catalog.

Calibrating and testing clamp-on testers

Wide range of current output and high accuracy

In the high resolution mode up to 6.5 digits, it can test and calibrate clamp-on testers.

- Current range: 100 μ A to 30 A
- Current accuracy: ± 70 ppm

*Sweep, divider, and deviation are not available in high resolution mode.

6.5 digits display example



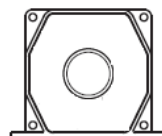
CL220
DCA 300 A



CL235
DCV 600 V/
DCA 1000 A



CL420
Clamp-on
process meter
DC 4 to 20 mA

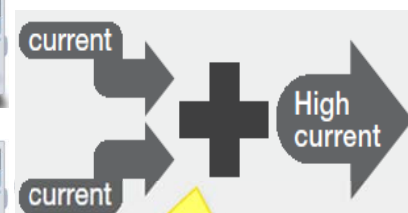


External DC
current
sensor

DC high current output

To generate higher current than 36.72 A, two 2560As can be connected in parallel to double the output to 73.44 A.

* The accuracy, stability and temperature coefficient errors are twice those for one unit.



Example:
50-turn jig

The specifications of accuracy, stability and temperature coefficient errors are guaranteed when two 2560As are connected.

*Depending on functions of devices such as AC voltage/current, high resistance, frequency, etc. some functions cannot be output and calibrated by the 2560A. For detail specifications, please refer to our product catalog.