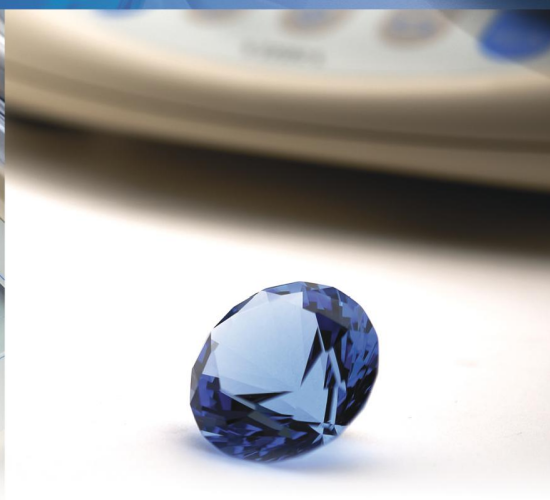




Tuning-Fork Balances AJ series



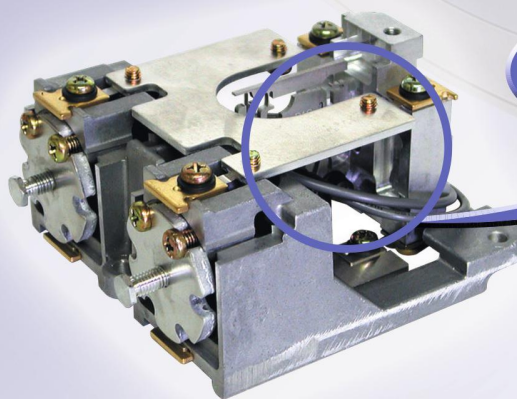
Tuning-Fork Sensor Technology for
high performance super-precision balances !



Equipped with latest MMTS for incredible 1/620,000 resolution!

MMTS- An evolution in the fundamental qualities of measurement

The MMTS (Mono-Metal Tuning-Fork Sensor) ensures high performance, solid noise resistance, rapid response, and a steady display with little flickering. Moreover, its energy-saving design and simple structure result in excellent long-term stability and outstanding durability.



MMTS
(Mono-Metal Tuning Fork Sensor)

Loaded in AJ220E~ 1200E/AJ220E~ 620E

Tuning-Fork Sensors

-taking us billions of light years ahead

Shinko Denshi's Tuning-Fork Sensors are used as high-precision, super-durable force sensors in the primary mirror control systems of Subaru, the world's largest optical telescope.

A full line-up of solutions for your needs



AJ-220E~620E



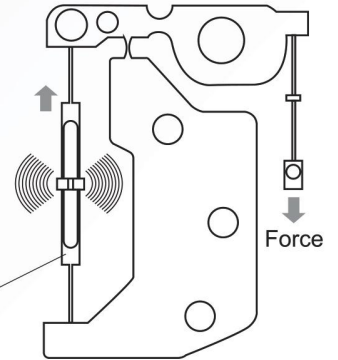
AJ-1200E~12000E



Loaded in AJ2200E~12KE/
AJ2200E~4200E

What makes the Tuning-Fork Sensor so precise?

The Tuning-Fork Sensor measures force or mass by gauging changes in oscillation frequency when a load is applied to a long, narrow vibrator. The reading output is digital.



Tuning-Fork Vibrator

Unlike load cell or electromagnetic systems, the Tuning-Fork Sensor does not rely on material distortion, electromagnetic force, heavy power consumption, or A/D converters. As a result, the inherent margin of error is extremely small, and high precision can be maintained for a long time.

Comparison with other sensors

| | Tuning-Fork | Load cell | Electromagnetic |
|---|------------------------------|---------------------------|---------------------------|
| Long-term stability (span drift per year) | 1/200,000 | 1/10,000 | 1/50,000 |
| A/D converter | Unnecessary (digital output) | Necessary (analog output) | Necessary (analog output) |
| Power consumption | Minute (1/10 of Load cell) | Low | High |
| Noise-proof | High | Low | Middle |
| Warm up | Unnecessary | Necessary | Necessary |

Innovative design in a compact body (patent pending)



AJ-820E/ 1200E

Options for modes and units

Users can select from 3 modes (weight, unit count, and percentage) and from 2 units of weight.

weight



percentage



quantity



Weighing units : g & ct

Comparator function

Users can tell at a glance whether a load is too heavy, too light, or the right weight according to the upper/lower weight limits they preset.



Quick-assembly shield

The sturdily constructed, fastener-free shield can be easily assembled or removed, making cleaning and storage simple.

Bar graph display

A 20-step bar graph display readily indicates the current load's weight against the capacity.



RS-232C interface (standard feature)

This interface allows users to connect the balance with a computer or print out.

Technical Specifications

| Model | AJ-220E | AJ-320E | AJ-420E | AJ-620E | AJ-820E | AJ-1200E | AJ-2200E | AJ-3200E | AJ-4200E | AJ-6200E | AJ-8200E | AJ-12KE |
|------------------|-------------------------------------|---------|---------|---------|--------------|----------|---------------|--------------|----------|----------|----------|---------|
| Capacity | 220g | 320g | 420g | 620g | 820g | 1200g | 2200g | 3200g | 4200g | 6200g | 8200g | 12000g |
| Readability | 0.001g | 0.001g | 0.001g | 0.001g | 0.01g | 0.01g | 0.01g | 0.01g | 0.01g | 0.01g | 0.1g | 0.1g |
| Repeatability(s) | 0.001g | 0.001g | 0.001g | 0.001g | 0.01g | 0.01g | 0.01g | 0.01g | 0.01g | 0.01g | 0.1g | 0.1g |
| Linearity(typ.) | ±0.001g | ±0.001g | ±0.001g | ±0.002g | ±0.01g | ±0.01g | ±0.01g | ±0.01g | ±0.01g | ±0.02g | ±0.1g | ±0.1g |
| Pan size | ø118mm | | | | 170x142mm | | | 180x160mm | | | | |
| Dimensions | 235x182x165mm(including windshield) | | | | 235x182x75mm | | | 265x192x87mm | | | | |
| Weighing units | g, ct | | | | | | | | | | | |
| Power source | AC 230V DC9V | | | | | | | | | | | |
| Output | RS-232C(standard) | | | | | | | | | | | |
| Measuring system | Tuning-Fork Frequency Sensing(MMTS) | | | | | | | | | | | |
| Tare | Full weighing range | | | | | | | | | | | |
| Calibration | With external calibration weight | | | | | | | | | | | |
| Display | LCD(height: 16.5mm) | | | | | | | | | | | |
| Modes | weighing, counting, % | | | | | | | | | | | |
| Weight | Approx. 1.3kg | | | | | | Approx. 3.7kg | | | | | |

Optional Accessory

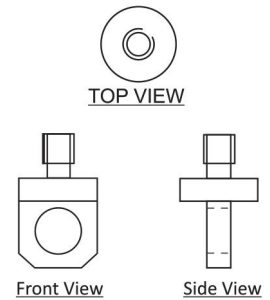
Remote Display



Charger with Battery (12V/1.3Ah)

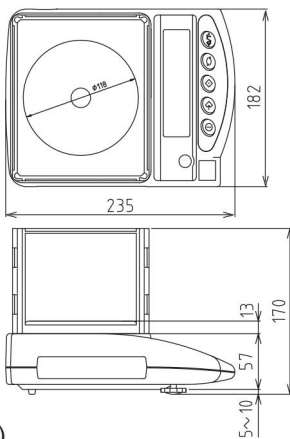


Weigh Below Hook

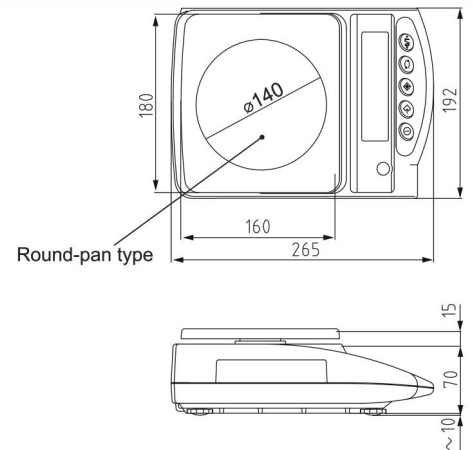
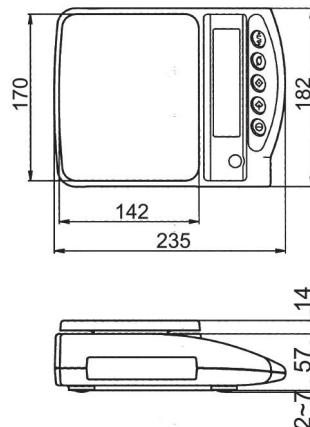


Used for capacity 220g, 320g, 420g, 620g, 820g and 200g

Dimensions



(unit : mm)



Round-pan type

Manufactured by: **Shinko Denshi Co.,Ltd.,Japan**

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