

# PAS-SYSTEM

## Preamplifiers



### Amplifier for Pressure

#### PA-100

Affordable Model

• Although this model is not equipped with a three-digit value display, which is seen on PA-001, other than that its functions and capability are equal to those of PA-001.

• This model is fully packed with our ideas to maximize its performance despite its affordable price.

Measurement Range: from -99 to +999 mmHg (digital display)  
 Selectable Sensitivities: 2, 5, 10, 20, 50, or 100 mmHg/V; 6 levels  
 Maximum Sensitivity: 2 mmHg/V

- Pressure Transducer
- Force Transducer (F-12IS)
- Isometric Transducer



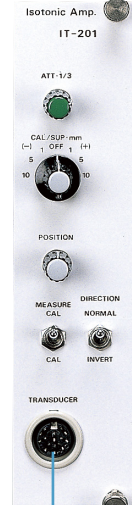
### Heart Rate Counter

#### HR-001

• Using its internal microprocessor, this model calculates the rate of each waveforms created by input analog signals of ECG, blood pressure, respiration, etc. and converts them into analog voltage. It also features a digital Zero Suppression function, which gives you an enhanced output of changes seen in rate and makes your observation of waveforms much easier.



This cable is connected to the front input of HR-001, taking a higher priority over the inputs between the amplifier's channels. Length: 1 m



### Simple-type Isotonic Amplifier

#### IT-201

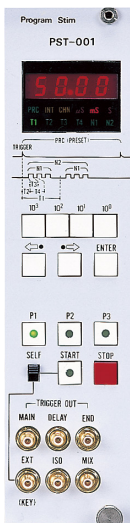
For students under training

This model employs a resistive potentiometer for its sensor. Its functions are simplified to an absolute minimum to make it more affordable and practical.

Measurement Range:  $\pm 25$  mm  
 Selectable Sensitivity: 1-1/3  
 CAL:  $\pm 1, 5, \text{ or } 10$  mm

Detects the resistive change by a contactless type potentiometer equipped with Hall element. Simple structure, but low driving torque.

Driving Torque: 500 mg  $\cdot$  cm  
 Method of Detection: resistive detection with potentiometer

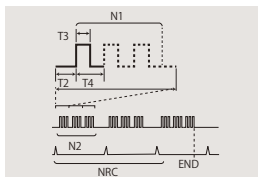


### Stimulator

#### PST-001

Programmable Type

Most of the functions other larger devices have are now condensed into this compact stimulator equipped with a microprocessor. It may look very small but this model performs a sufficient number of functions that include a trigger input and pulse train. With this device you can execute a preprogrammed stimulation pattern with a one-touch operation, that is to say, there is no need to deal with complex settings during your study procedure and switching to a different stimulation pattern can instantly be done with ease.



INT / EXT mode inversion output  
 This model features an ideal function that enables inverting the polarities of output by the unit of pulse. This function prevents polarization of nutritious fluid and also keeps the stimulative electrode from being covered with interferential materials.

• High Current with 240V Battery  
 With its 240V battery, this device is capable of generating a high-current isolated stimulation with up to 100mA and 100V.

• High Sensitivity, Parallel Concurrent Operation Feature  
 This device is capable of processing a pulse input equal to or more than 5V. It can be connected to various stimulators that are available from different manufacturers, and approximately 5 units can concurrently be used in parallel from a single output.

#### <Setting Feature for Patterns>

- T1 MAIN INTERVAL 100  $\mu$ s-9999s
- T2 DELAY 0, 50  $\mu$ s-9999s
- T3 DURATION 50  $\mu$ s-838s
- T4 INTERVAL 50  $\mu$ s-838s
- N1 TRAIN 1-9999 (infinity by 0)
- N2 MAIN INTERVAL number 1-9999 (consecutive by 0)
- PRC PRESET COUNT 1-9999 (free by 0)

#### <Input / Output Terminals >

- EXT: starting external trigger
- TRIGGER OUT: output synchronizing terminal, three terminals for each of three types; MAIN / DELAY / END
- ISO: stimulation output terminal
- MIX: MIX output terminal for multi-channel use; same output as ISO for solo use

#### ISS-011

with Auto Inversion Function

#### ISS-001

Normal

Auto Inversion Function (ISS-011)



### pH-Meter

#### PHA-001

Isolated Model

• This model is designed to feature a complete isolation, standing a high voltage of 3000V for safety, to securely be used for clinical in vivo pH measurements.

This pH-meter has highly responsive feature of 0.02 seconds, enabling a measurement with direct response when using it together with metallic electrodes such as those made of antimony.

• Its pH7 can be adjusted widely, and a broad range of electrodes, from a minute glass electrode to a metallic electrode, can be used with this device.

Display Range: pH0.00-14.00 (digital display)

Zero Correction: (pH7 value)  $\pm 5.0$  pH or more

Sensitivity Correction: (pH4 value)  $\pm 0.8$  pH

Leakage Current: isolation with a photocoupler; 2  $\mu$ A or less / 100V 50Hz

Relay Cable

### Disposable pH Electrodes Single-use

