PULSE WAVE/PCG TRANSDUCER

model TK-701T

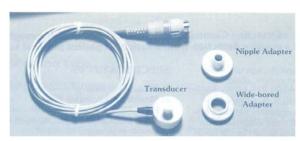
Designed for Detecting Apexcardiogram (ACG)/Phonocardiogram (PCG), Carotid Artery Pulse, Jugular Venous Pulse or Subclavian Venous Pulse, for Mechanocardiography.

An air-conductive method for multiple applications.

The TK-701T is a pulse wave/phonocardiogram transducer utilizing a piezoelectric element (perovskte ABO₃ type compound). It is designed to be placed on various areas of the body with the aid of a strap or an adhesive collar for detection of ACG and PCG as well as other pulse waves. These parameters can be useful diagnostic information in mechanocardiography, offering non-invasive features for cardio-vascular diagnostics. The transducer is shown with its

detecting surface down.
The jugular venous pulse, carotid arterial pulse, or a mixture of ACG/PCG can be detected without using

any adaptor.
For detection of ACG, the wide-bored adaptor is used, while for the



detection of the carotid arterial or subclavian venous pulse, the nipple adaptor is used.

For ACG/PCG measurement, the transducer is held on the apex cord by means of the accessory strap. As the detected signal contains frequency elements for both ACG and PCG ranges, they are separated afterward by filtering in the ACG/CAP Coupler, AK-650H (Block diagram below). For jugular venous pulse measurement, the transducer is affixed with the aid of an adhesive collar to the point where the jugular vein is palpable.

The exterior of the transducer is made of plastic molding to isolate the patient from the circuit for safety.

SPECIFICATIONS

- 1) Sensitivity: Greater than -70dB (0dB = 1V/µ bar)
- Time Constant: 1.8 sec. or greater; an input impedance of 20MΩ/0.1μF, differential.
- 3) Resonance Frequency: 1kHz
- Linearity: In a sound pressure range of up to 1000μ bar (at 100Hz), ±3dB
- 5) Internal Capacitance: 1000pF
- Dimensions and Net Weight: 30mm diameter X 16mm thick, approx. 15 grams, transducer only
- 7) Connector Plug Used: Hirschman MAS-5100S
- 8) Patient Leak Current: 100μV or less (240V AC 50Hz)

SAMPLE COMBINATIONS FOR CLINICAL MECHANOGRAPHY

	Chan- nels	Parameters	Transducers Used
Test of Right Ventricular System	Cho I	ECG (Lead II or chest)	
	Ch.2	PCG (Polmonary arterial area)	TK 701T or TA 601T
	Cb. 3	Jugalar venous palse	TK 701T
	Ch. 4	PCG (Tricuspid area)	TK 701T or TA 601T
Test of Left Ventricular System	Ch. 1	ECG (Lead II or chest)	
	Ch. 2	PCG (Acrtic area)	TK 701T or TA 601T
	Ch. 3	Carond arterial polse	TF 601T or TK 701T
	Ch. 4	PCG (Minal area)	TK 701T or TA 601T

	Chan- nels	Parameters	Transducers Used
Test of Apex Beats	Ch. 1	ECG (Lead II or chest).	
	Ch. 2	PCG (As required)	TK 701T or TA 601T
	Ch.3	Apexcardiogram	TK 701T
	Ch: 4	PCG Point of Maximum impulse, low: frequency portion	TK 701T or TA 601
Observation of the Split of the Second PCG Sound Caused by Respiration	Ch. I	ECG (Lead II or chest)	
	Ch. 2	PCG Polimonary arterial area, high frequency portion.	TK 701T or TA 601T
	Ch:3	Respiration curve or Carotid arterial polse	See Page 8 TF-601T or TK-701T
	Ch. 4	PCG Tricuspid area. high frequency portion.	TK 701T or TA 601T

SAMPLE SYSTEM COMPOSITION

Polygraph Systems RM-6000/6200/6300, Mini-Polygraph RM-6100



TRANSDUCER PLACEMENT BY A STRAP OR ADHESIVE COLLAR

· ACG/PCG MEASUREMENT



 JUGULAR VENOUS PULSE MEASUREMENT



Adhesive Collars, NK Parts No. 509 0063

- * With 30mm outer diameter.
- Used for application to the body site for JVP measurement.
- * 3 pcs. on a sheet, 100 sheets in bag.