

Servo-Pneumatic Four Point Bend Apparatus standalone



AASHTO T321 | EN 12697-24 Annex D | EN 12697-26 Annex B

MAIN FEATURES

- **Digital servo-controlled pneumatic actuator provides accurate control of loading waveshape**
- **Innovative "floating straight-edge" on-specimen transducer eliminates errors due to frame compliance**
- **Backlash free rotation and translation on all load and reaction points**
- **Sinusoidal or haversine controlled stress loading**
- **Controlled force, motorised specimen clamping**
- **Non-linear regression data fitting ensures reliable determination of phase and modulus**

GENERAL DESCRIPTION

The Servo-Pneumatic Four Point Bend Apparatus stand-alone features a pneumatic actuator which is digitally controlled by a pneumatic servo-valve to provide accurate loading in both stress and strain control modes. In addition, the Servo-Pneumatic Four Point Bend Apparatus features a beam cradle which has been designed to four point bending with backlash free rotation and horizontal translation of all load reaction points.

Controlling the Four Point Bend Apparatus stand-alone is the Integrated Multi-Axis Controls and Data Acquisition System (IMACS).

TECHNICAL SPECIFICATIONS

- Loading frequency: up to 60 Hz (load limitations apply at higher frequencies)
- Load capacity: up to 5 kN dynamic
- Actuator stroke: 10 mm
- Specimen size (h x w x l): 70 x 80 x 380 mm max
- Yoke alignment tool for specimens (h x w x outer span centers): 50 x 50 x 355.5; 70 x 70 x 420 mm
- Air supply: clean, dry air at 800-900 kPa, 5 L/sec min.
- Dimensions (l x w x h): 460 x 230 x 600 mm
- Weight: 35 kg

IMACS

- Dimensions (l x w x h): 450 x 360 x 270 mm
- Weight: 11 kg

DATA SHEET

ORDERING INFO

79-PV74A02

Servo-Pneumatic Four Point Bend Apparatus stand-alone, including IMACS digital control and data acquisition system.
230 V, 50-60 Hz, 1 ph

ACCESSORIES

Environmental Chamber

79-PV70E02

Environmental chamber for servo-pneumatic testing machine, -25 to 60° C.
110-230 V, 50-60 Hz, 1 ph

ADDITIONAL INFORMATION

IMACS Digital Controller and Data Acquisition System

IPC Global's world leading IMACS digital controller and data acquisition system is at the heart of all our servo-controlled testing systems. It provides excellent waveform fidelity from integrated channel acquisition and control functions, at speeds of up to 5 kHz simultaneously on all channels.

The IMACS utilizes flash-based firmware which allows updates of all modules onsite. Analogue inputs auto-calibrate on power-up giving confidence in readings and a low data noise performance with over-sampled data.

With up to 8 expandable control axes and 32 data acquisition channels, you can have total confidence in your testing results. It has an exceptional data resolution and control with up to 20 bit effective auto-ranging data acquisition and a real-time digital computer control with 32 bit processing.

Three versions are available: for Servo-Hydraulic, Servo-Pneumatic and Servo-Electromechanical systems.

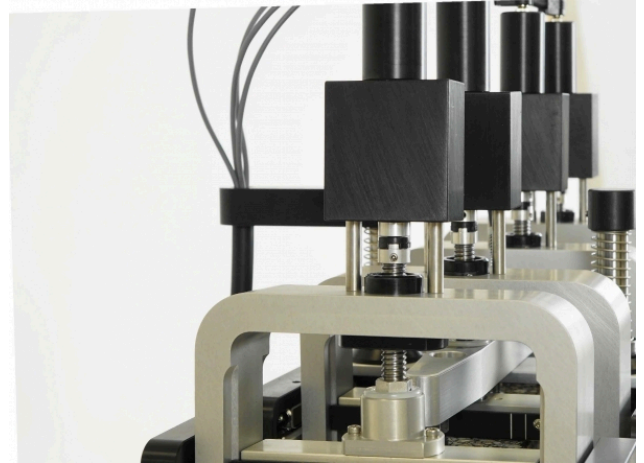


Servo-pneumatic Four Point Bend Apparatus

DATA SHEET



Detail of Servo-pneumatic Four Point Bend Apparatus



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