

Double Acting Type Pneumatic Valve Positioner Model VPP 02/03

Introduction

Model VPP02/03 double acting type pneumatic valve positioner mounted on the valve is a force-balance servo mechanism designed to position the control valve correctly and rapidly by bleeding or feeding air to the diaphragm, double acting actuation in accordance with the pneumatic signal from a controller.

Standard specifications

Type : Model VPP02

{Supply air pressure 2.0~3.5kgf/cm²{200~340kPa}}

Model VPP03

{Supply air pressure 3.6~7.0kgf/cm²{350~690kPa}}

Input : 0.2~1.0kgf/cm²(standard)

0.2~0.6, 0.6~1.0kgf/cm² are available.

Output characteristics :

Linear, Equal percentage and Quick opening.

Supply air pressure :

2.0~7.0kgf/cm² {200~690kPa}

Air consumption : 20Nℓ/min. [normal state, supply air pressure 5.0kgf/cm² {490kPa}]

Maximum capacity of air flow : 250Nℓ/min. [supply air pressure 5.0kgf/cm² {490kPa}]

Pneumatic tubing connection : Rc¹/₄ internal thread

Ambient temperature : -30°C to +80°C

Performance:

Accuracy; ±1% FS

Dead band; Within 0.2% FS

Travel adjustable range : 14~100mm

Additional specifications (by special order) :

- **Corrosion-resistant and silver finish** (Semi-standard specification Y138) :

Corrosion-resistant (Acryl baking) finish (Y138A);

Resistance for corrosive gases

Corrosion-proof (Epoxy baking) finish (Y138B);

Resistance for corrosive liquides.

Silver-normal (Acryl baking) finish (Y137C);

Protection for temperature rise of device caused by direct sun light, radiation heat, etc.

Silver-corrosion-resistant (Acryl baking) finish (Y138D);

Protection for above-mentioned temperature rise and resistance for corrosive gases.

Note) Silver finish is not applicable for alkaline gases.

Net weight : Approx. 3.5kg

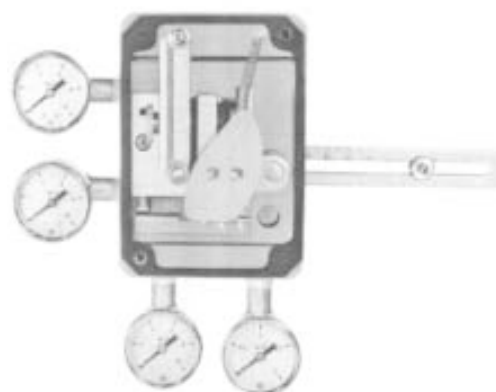
Housing material : Aluminum alloy casting.

Finish : Acryl baking finish (For corrosion-resistant and silver finish, refer to the optional specification.)

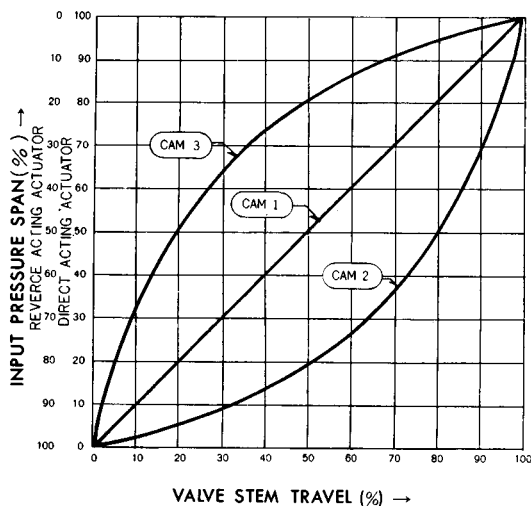
Color of finish : Dark beige (Munsell 10YR 4.7/0.5)



Exterior view



Interior view



Cam characteristics

Linear (cam 1, standard) and two other kinds. By selecting the other two cams, valve characteristics can be approximated as follows.

(1) For reverse acting valve

- Cam 2 {
 - ▶ Linear characteristic valve plug → Quick opening characteristic
 - ▶ Equal percentage characteristic valve plug → Linear characteristic
- Cam 3 {
 - ▶ Linear characteristic valve plug → Equal percentage characteristic
 - ▶ Quick opening valve plug → Linear characteristic

(2) For direct acting valve

The effect of cams 2 and 3 applied to direct action valves is reversed as compared with the case of reverse action valves.

Figure 1. Cam characteristics

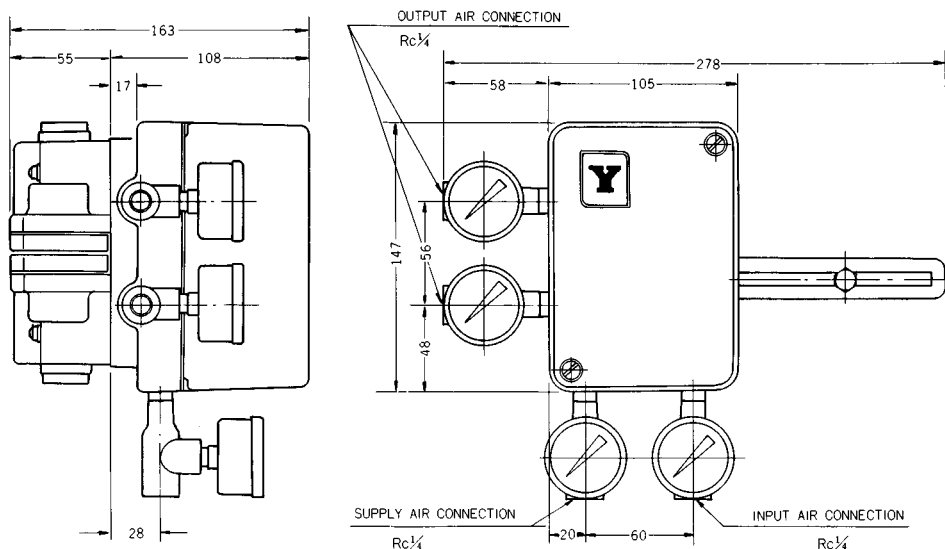


Figure 2. External dimensions

Ordering information

When ordering, please specify;

- 1) Model number
- 2) Input range
- 3) Supply air pressure
- 4) Actuator model No.
- 5) Output characteristic
- 6) Option

Specifications are subject to change without notice.

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