

For Higher Supply Air Pressure Single Acting Pneumatic Valve Positioner Model VPP08

Introduction

Model VPP08 valve positioner is designed for application in higher supply air pressure and mounted on a control valve. The positioner is a force-balance servo-mechanism to position valve opening correctly and rapidly by bleeding or feeding air of a pneumatic-operated single acting actuator in accordance with a pneumatic signal from a controller.

Features

- 1) Compact, rigid construction makes it easy for adjustment and maintenance.
- 2) Changes in characteristics can easily be made by changing cams.
- 3) Anti-corrosive materials are used for components, thus is suitable for service in bad operating atmosphere.

Standard specifications

Model : VPP08

Input signal : 0.2 to 1.0kgf/cm² {20 to 100kPa} (standard),
0.2 to 0.6, 0.6 to 1.0kgf/cm²
{20 to 60, 60 to 100kPa}

Output characteristic : Linear, equal percentage,
quick opening

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

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

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

Pneumatic tubing connection : Rc $\frac{1}{4}$ or $\frac{1}{2}$ NPT internal
thread

Ambient temperature range : -30 to +80°C

Accuracy : ±1.0%FS

Dead band : Within 0.5%FS

Adjustable travel range : 14 to 100mm



Exterior view

Additional specifications (by special order) :

• Corrosion-resistant and silver finish

(semi-standard specification Y138) :

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

Resistance to corrosive atmosphere

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

Resistance to corrosive liquids

Silver-normal (acryl baking) finish (Y138C);

Protection against temperature rise of devices caused by direct sun light, radiation heat, etc.

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

Protection against the above-mentioned temperature rise and resistance to corrosive atmosphere

(Note : Silver finish is not applicable for alkaline gases.)

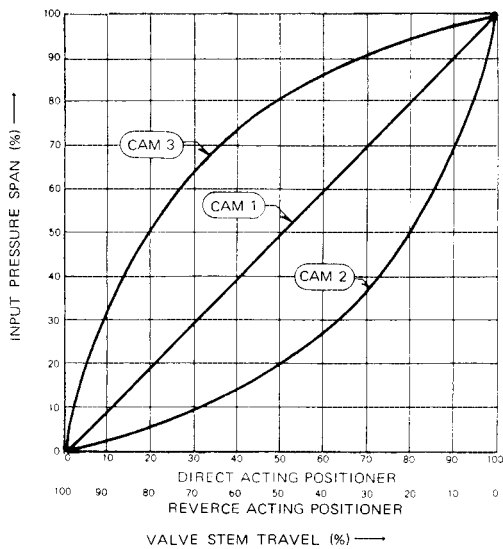
Dimensions : See Dimension drawing on page 2.

Weight : 3.5kg

Housing material : Aluminum alloy casting

Finish : Acryl baked finish (For corrosion-resistant and silver finish, refer to optional specifications.)

Color of finish : Dark beige (smooth tone finish)



Cam characteristics:

Linear cam (cam 1, standard) has linear valve characteristic. 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. (Indicate cam 2 or cam 3 as required.)

Figure 1. Cam characteristics

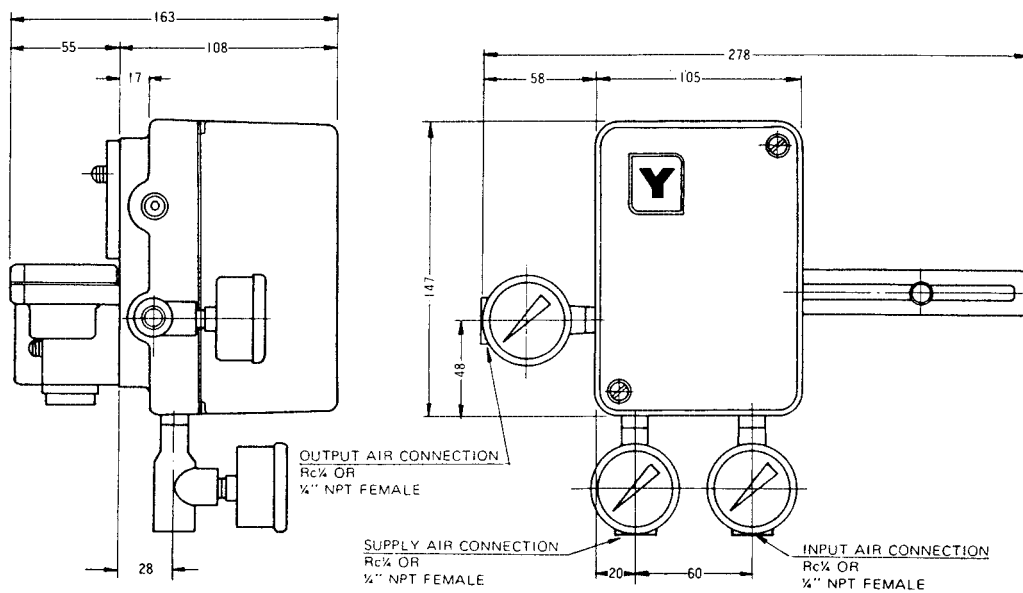


Figure 2. Dimensions

Ordering Information

When ordering, please specify :

- 1) Model number
- 2) Input signal
- 3) Supply air pressure
- 4) Control valve to be applied
- 5) Output characteristics
- 6) Optional specifications

Specifications are subject to change without notice.

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