

For FloWing Valves

Pneumatic Valve Positioner

Model VPR 02/03

Introduction

Model VPR pneumatic valve positioner has been designed specifically for FloWing valves (Eccentric Rotary Control Valves). It enhances the response and other performance characteristics of the valves and minimizes the effect of fluid pressure variation.

Features

- 1) The VPR is compact and can be readily installed.
- 2) All of the major components are housed in the casing and purged with bleeding air there by preventing corrosion caused by adverse atmosphere.
- 3) The VPR has an air booster mechanism. Although compact, the VPR provides a rapid response speed which is comparable with that of a large positioner.
- 4) The VPR can be effectively used when the controller signal span and the actuator spring span do not mutually conform, so that the valve position can be controlled in direct conformity with the controller signal.



Standard specifications

Type : Model VPR02

{Supply air pressure 2.2kgf/cm²(220kPa)}

Model VPR03

{Supply air pressure 3.5~5.0kgf/cm²
(340~490kPa)}

Input : 0.2~1.0kgf/cm²(standard)

0.2~0.6, 0.6~1.0kgf/cm²

Supply air pressure : 2.2~5.0kgf/cm² (220~490kPa)

Air consumption : 12Nℓ/min.

{with air supply 5.0kgf/cm²(490kPa)}

Maximum capacity of air flow : 40Nℓ/min.

{with air supply 5.0kgf/cm² (490kPa)}

Rotating angle : 60 degrees (fixed span)

Type of operation : Direct action

Bypass mechanism : Air-supply pressure introduction system (for pneumatic manual operation)

Pneumatic tubing connection : Rc ¼ or ¼NPT internal thread

Ambient temperature : -20 to +70°C

Ambient humidity : 10 to 90% RH

Accuracy : ±2% FS

Dead zone : 0.1% FS or less

Operating speed (maximum) :

8 sec. (with VR2 actuator)

21 sec. (with VR3 actuator)

(Typical values, when no-load)

Weight : 1.3kg

Additional specifications (by special order)

• Corrosion-resistant and silver finish (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 (Y138C);

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.

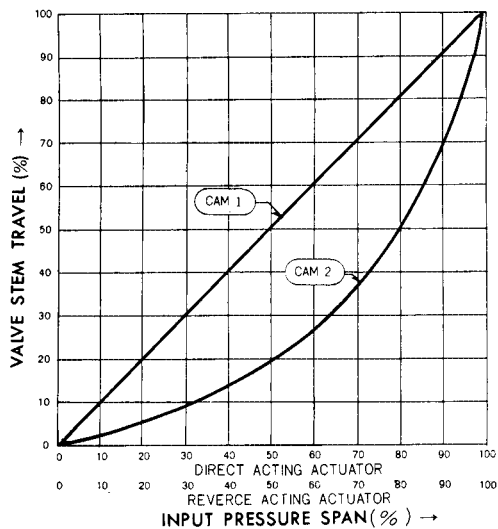
Material of housing :

Body; Aluminium alloy

Cover; Polyester resin

Finish : Baked acryl resin

Finish color : Dark beige (smooth tone finish)



Cam characteristics

By selecting the other linear cam (cam1), valve characteristics can be approximated as follows.

Cam 2 : Linear characteristic valve plug
 → Quick opening characteristic

Figure 1. Cam characteristics

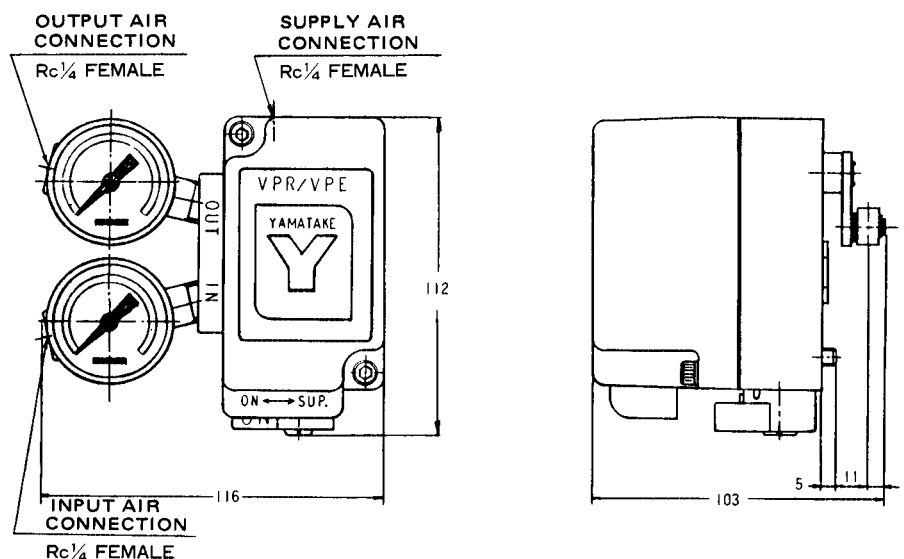


Figure 2 . External dimensions

Ordering Information

When ordering, please specify :

- 1) Model number : VPR
- 2) Input range
- 3) Supply air pressure
- 4) Actuator

Yamatake Corporation

Totate international Building
 2-12-19 Shibuya
 Shibuya-ku, Tokyo 150-8316
 Japan

Tel : 81-3-3486-2310

Fax : 81-3-3486-2593

YAMATAKE

Savemation

Saving through Automation