

**KITZ SCT**

# PCVA Series

APC Butterfly Valve



**KITZ**  
Group

VACUUM Series

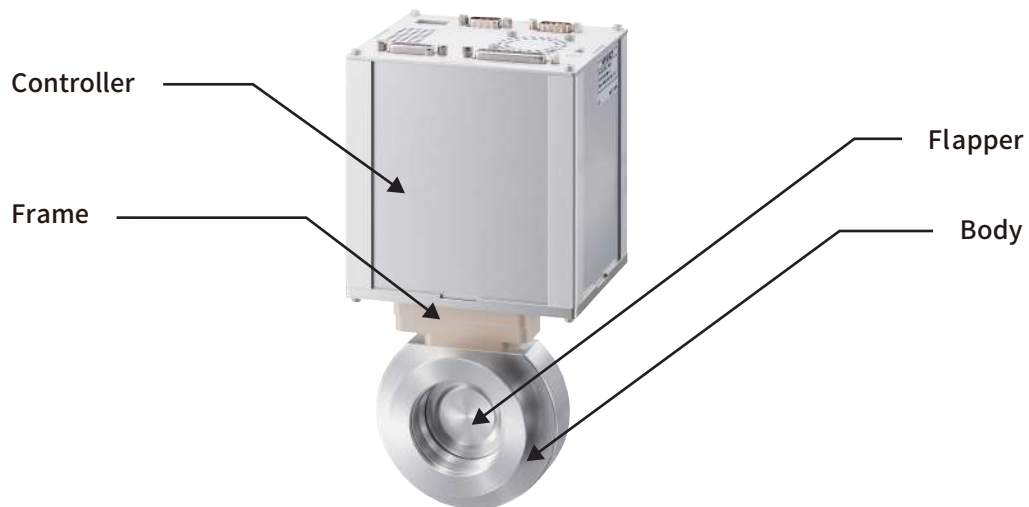
## Features

### Auto PID Function provides the following controls:

- **Pressure control** : Adjusts pressure automatically to a specified target pressure.
- **Target change** : Responds to changes in target pressure value during pressure control.
- **Flow rate fluctuation** : Allows pressure control for flow rates other than the learned flow rate.
- **Disturbance effect** : Converges to target pressure regardless of flow rate changes during target pressure control.
- **Detection of misalignment** : Allows detection of misalignment caused by-product adhesion, mechanical part trouble, etc.

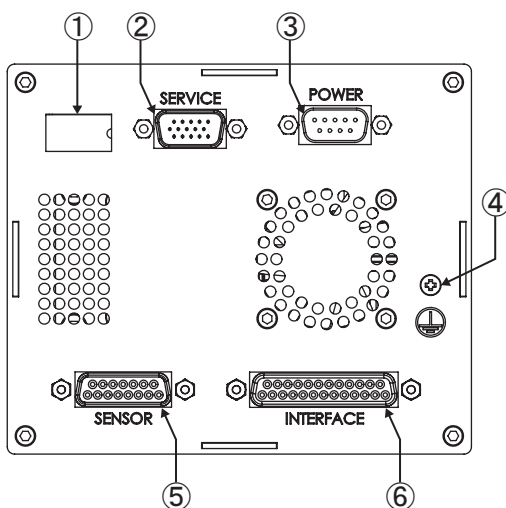
## Structure

### Appearance

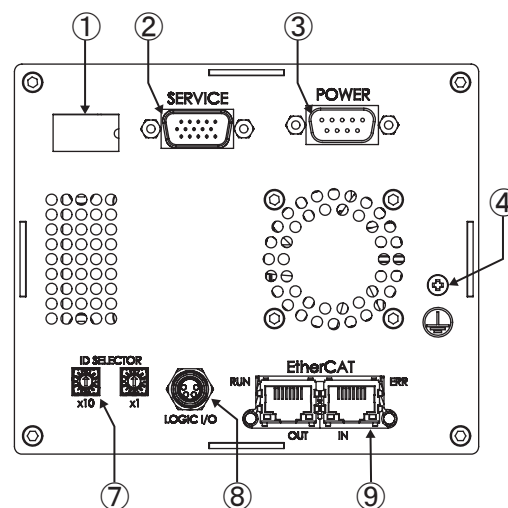


### Interface

#### LOGIC, RS232C specification



#### EtherCAT specification



- ① Digital display
- ② PC connection
- ③ DC 24 V power connection
- ④ External ground connection
- ⑤ Pressure sensor connection
- ⑥ Logic/RS232C connection
- ⑦ ID selector
- ⑧ Logic connection
- ⑨ EtherCAT connection

## Specifications

Items	Specifications	
Body Size	40A	50A
Conductance *1	64L/s	138L/s
Connection Flange	ISO-KF NW Flange	
Operating Pressure	$1 \times 10^{-6}$ Pa ~ 0.101MPa	
Leak Rates *2	Inboard He Leak Rates : $1 \times 10^{-10}$ Pa·m <sup>3</sup> /s Across the Seat He Leak Rates : $1 \times 10^{-9}$ Pa·m <sup>3</sup> /s	
Differential Pressure	14.6psi(0.101MPa)	
Response Time	Fully open ⇒ Fully close : 0.5s Fully close ⇒ Fully open : 0.5s	
Cycle Life *3	Fully open/close: 250,000 times Pressure regulation: 2 million times	
Atmospheric Temperature	5~50°C	
Body Allowable Temperature	120°C	
Standard Material	Body, Flapper, Stem : SUS316L Frame : PEEK Sealant (O ring) : FKM	
Weight	2.7kg	3kg

Items	Specifications
Pressure Control Accuracy	0.1% of sensor full scale
Opening Control Accuracy	0.1% of valve opening
Maximum Number of Pressure Sensors Connectable	2
Full Scale of Operating Pressure Sensor	13.3 Pa ~ $1.33 \times 10^5$ Pa (0.1Torr~1000Torr)
Power	LOGIC specification: DC24V±10% 3.2A max RS232C, EtherCAT specification : DC24V±10% 3.1A max
Network Interface	LOGIC, RS232C, EtherCAT

\*1 Calculated value at flapper fully open, in molecular flow range, and at distance between valve surfaces

\*2 Test conditions

Temperature : Normal temperature

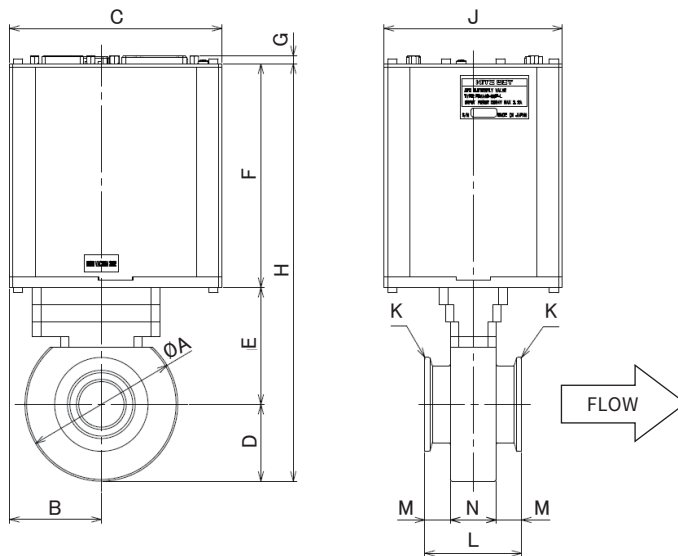
Inspection time : 30 seconds

\*3 Test conditions

Atmospheric release, set at 120°C

## Dimensions

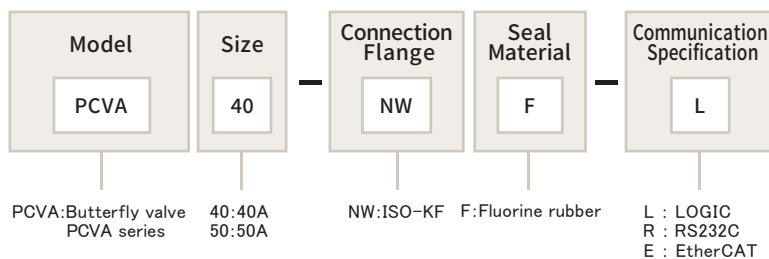
Unit: mm(inch)



Size	40A	50A
A	90(3.543)	100(3.937)
B	54(2.126)	
C	125(4.921)	
D	45(1.772)	50(1.969)
E	68.5(2.697)	73(2.874)
F	131(5.157)	
G	LOGIC, RS232C specification : 4.8(0.189)* EtherCAT specification : 8(0.315)*	
H	244.5(9.626)	254(10.000)
J	105(4.134)	
K	KF40	KF50
L	57(2.244)	
M	15(0.591)	
N	27(1.063)	

\* Connector dimension from top surface of controller.

## Product Number



Options	Overview
INTERFACE cable 5.0m[16.4ft] (LOGIC)	Cable for connecting INTERFACE connector
INTERFACE cable 5.0m[16.4ft] (RS232C)	
SENSOR cable 5.0m[16.4ft]	Cable for connecting SENSOR connector
POWER cable 5.0m[16.4ft]	Cable for connecting POWER cable

\*Contact us for options other than those listed above.

■ Global Network

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