KITZ SCT

PCVB Series

APC Butterfly Valve



KITZ Group

VACUUM Series

Features

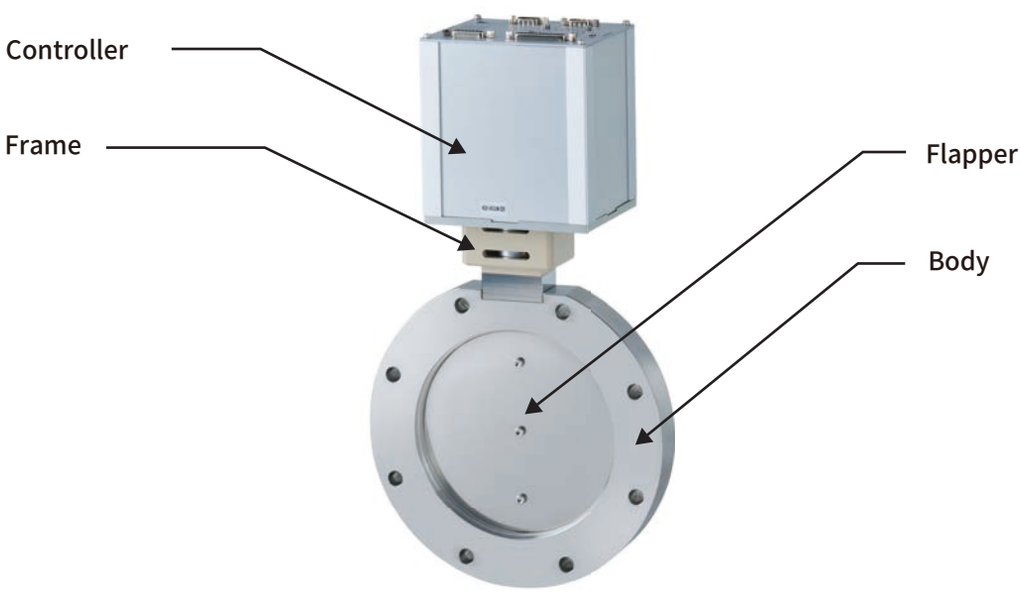
Auto PID Function provides the following controls:

- **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.

Non-sealing type compatible with high-speed operation

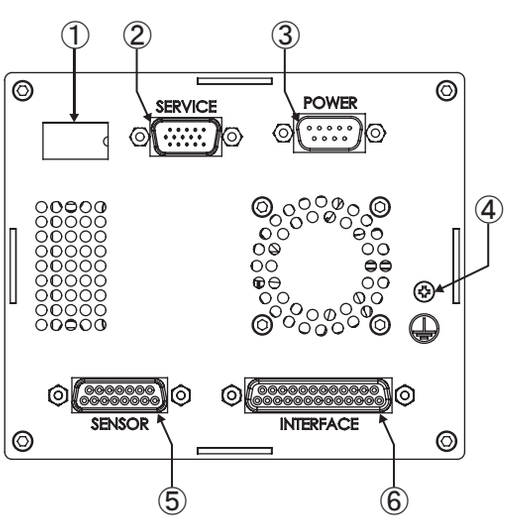
Structure

■ Appearance

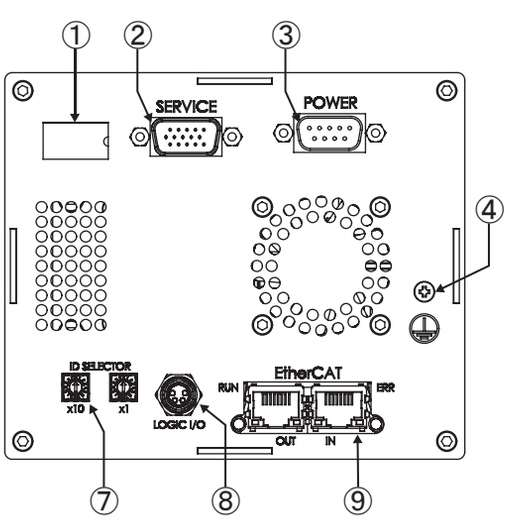


■ Interface

LOGIC, RS232C specification



EtherCAT specification



① Digital display
② PC connection
③ DC24V 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	100A	150A	200A
Conductance *1	1300L/s	3500L/s	6900L/s
Minimum Conductance *2	0.6L/s	0.9L/s	1.2L/s
Connection Flange	ISO-BT Flange		
Operating Pressure	1×10^{-6}Pa ～ 0.101MPa		
Leak Rates *3	Across the Seat He Leak Test Rates: 1×10^{-10} Pa·m³/s		
Differential Pressure	80kPa	30kPa	15kPa
Response Time	Fully open⇒Fully close : 0.11s Fully close⇒Fully open : 0.11s	Fully open⇒Fully close : 0.13s Fully close⇒Fully open : 0.13s	Fully open⇒Fully close : 0.17s Fully close⇒Fully open : 0.17s
Cycle Life *4	Pressure regulation : 3million times		
Operating Ambient Temperature	5～50℃ (Recommended ≤ 40℃)		
Body Allowable Temperature	150℃		
Standard Material	Body,Flapper,Stem : SUS316L Frame : PEEK Shaft Seal : FKM		
Weight	5.0kg	7.3kg	10.0kg

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	13.3Pa ～1.33×10⁵Pa (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
The conductance value is calculated using our original formula, including the flapper.

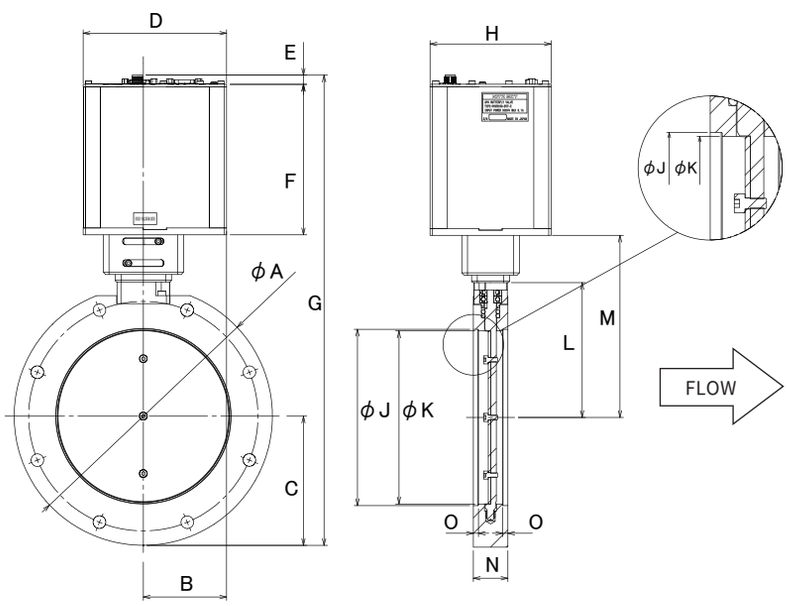
*2 Calculated value at flapper fully closed, in molecular flow range, and at distance between valve surfaces

*3 Test conditions
Ambient temperature: Room temperature
Body temperature: Non-heated
Inspection time: 30 seconds

*4 Test conditions
Ambient temperature: Room temperature
Body temperature: 150℃
Atmospheric release

Dimensions

Unit :mm (inch)



Size	100A	150A	200A
A	165(6.497)	225(8.859)	285(11.221)
B	72.5(2.854)		
C	82.5(3.249)	112.5(4.430)	142.5(5.611)
D	125(4.922)		
E	LOGIC、RS232C specification:4.8(0.189)* EtherCAT specification:8(0.315)*		
F	131(5.158)		
G	351.3(13.831)	406.3(15.997)	466.3(18.359)
H	105(4.134)		
J	102(4.016)	153(6.024)	213(8.386)
K	100(3.938)	150(5.906)	200(7.875)
L	98.5(3.878)	123.5(4.863)	153.5(6.044)
M	133(5.237)	158(6.221)	188(7.402)
N	30(11.82)		
O	4.5(0.178)		

*Connector dimension from top surface of controller.

Product Number

Model	Size		Connection Flange	Shaft Sealing Material		Communication Specification
PCVB	100	–	BT	F	–	L

PCVB : Butterfly valve PCVB series
100 : 100A
150 : 150A
200 : 200A
BT : ISO-BT
F : Fluorine rubber
L : LOGIC
R : RS232C
E : EtherCAT

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 connector

* Contact us for options other than those listed above.

Optional Heater Specifications

Items	Specifications		
Size	100A	150A	200A
Heater Rated Capacity	233W(AC200V)/282W(AC220V)	421W(AC200V)/510W(AC220V)	501W(AC200V)/606W(AC220V)
Resistance	171.7Ω ±10%	95.0Ω ±10%	79.9Ω ±10%
Voltage	AC200V/AC220V		
Set Temperature *	200℃	190℃	180℃
Insulation Resistance	50MΩ or more at DC500V		
Withstand Voltage Performance	AC1500V/1min		
Operating Ambient Temperature	5～50℃		
Thermostat	NC, manual reset		
Thermocouple	Type K		
Weight	0.5kg	0.7kg	0.9kg

* The heater set temperature is based on the assumption that the temperature of the wetted area of the valve can be maintained at 150℃ or higher when the piping heater prepared by the user is set to 150℃.

■Product Number

Model		Size
PCVB Jacket Heater	–	100

PCVB Jacket Heater
:Heating Jacket for Butterfly Valve PCVB Series

100 : 100A
150 : 150A
200 : 200A

* For details, contact our sales representative and check the drawings.

⚠ Caution

Product specifications and performance values described in this catalog are based on our design calculations, in-house testing, product usage performance and public standards and specifications, and are posted as a user's guide under general usage conditions of the product. If the product is used outside of the described usage conditions or under special usage conditions, you should receive our technical advice in advance or it will be necessary to first conduct research and evaluation for performance verification at the users' own responsibility. Even if physical or personal damage occurs without use of the procedure, we shall assume no responsibility. Although this catalog has been edited with the utmost care possible, contact us if there are any unclear points if you come across any question-able matter. In addition, information described in this catalog will be revised without notice due to reasons that include correction of errors, supplement/improve-ment of insufficient content, improvement in product performance design change, and discontinuation of production of products, etc., when deemed necessary. This invalidates the product catalog of the previous version. The issue code is described in the back of your catalog. For product selection, contact us to confirm whether your catalog is the latest version. In addition, when exporting our products, exporters should obtain an export permit from the Ministry of Economy, Trade and Industry based on the provisions of the Export Trade Control Order of the "Foreign Exchange and Foreign Trade Act." Contact us regarding any unclear points.

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025-E 26.09②