

# IB-K Interface Board

Electronic Circuit Board



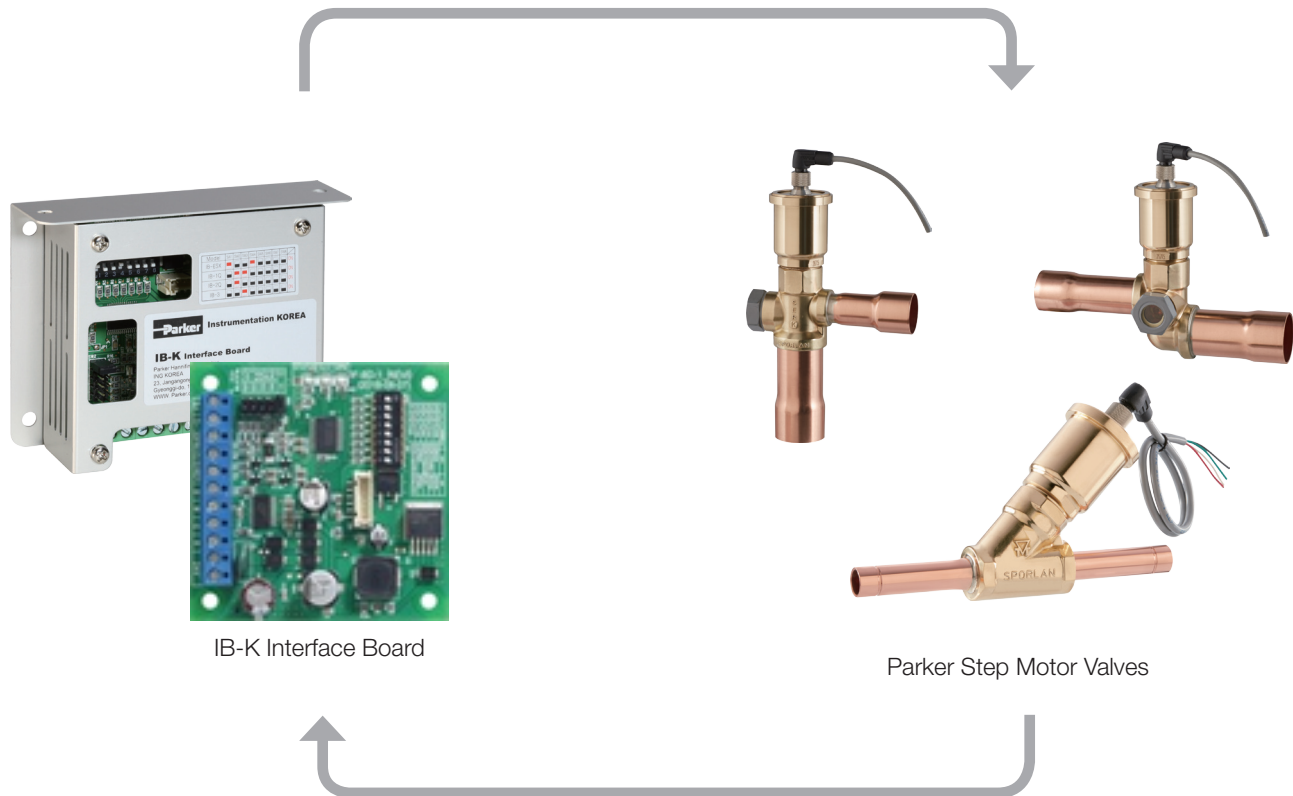
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## Introduction

The IB-K is developed to be applicable in Korea and various markets. It is also applicable to Parker Sporlan products and all step motor valves manufactured in Korea and China.

The IB-K is a small electronic circuit board that extends the functionality of an external system controller to drive step motor valves.

The external controller must provide an analog 0-10VDC or 4-20mA signal to the IB-K.



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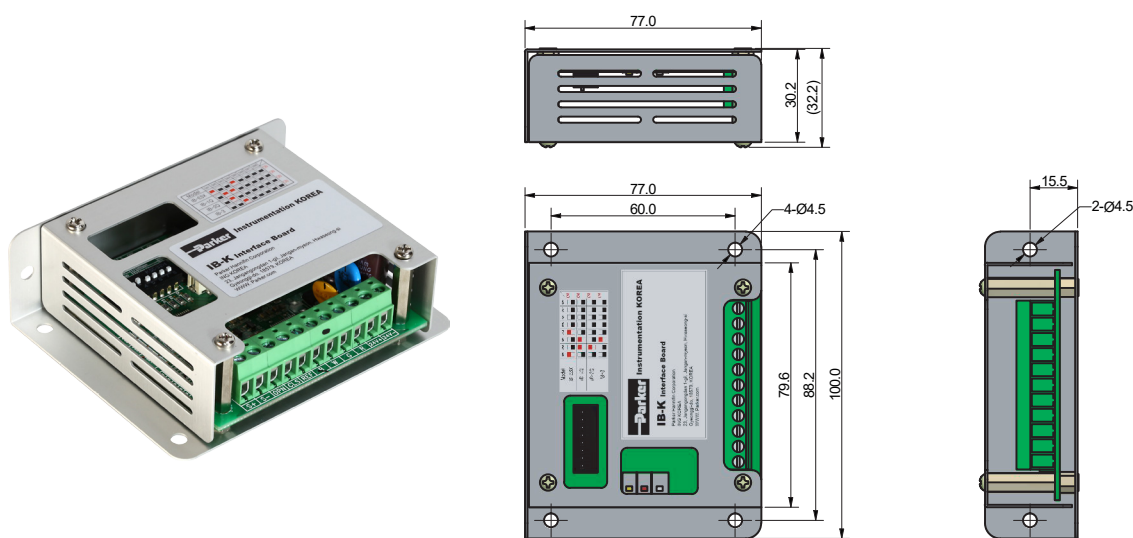
## Features

- The IB-K Interface Board is available for all Parker step motor valves.
- Precise control of various stepping motors is possible.
- Applicable to all valves with bipolar and unipolar control of 4 phases
- The compact size allows you to minimize the mounting space.



## Specifications

| Part number    | Connections | Input Voltage | Output Voltage | Control Signal   | Excitation Speed | Excitation Method     |                         |
|----------------|-------------|---------------|----------------|------------------|------------------|-----------------------|-------------------------|
|                | Type        | [DC V]        | [DC V]         | [V, mA]          | [pps]            | Bipolar               | Unipolar                |
| IB-K<br>IB-K-C | Lead Wire   | 24            | 12             | 0-10V,<br>4-20mA | 30~400           | 2 phase<br>excitation | 1-2 phase<br>excitation |



IB-K-C (Case Ass'y)

## Applications

- Air conditioner
- Heat pump system
- Refrigerator cargo vehicles
- Supermarket system
- Semiconductor chiller
- Other refrigerant devices

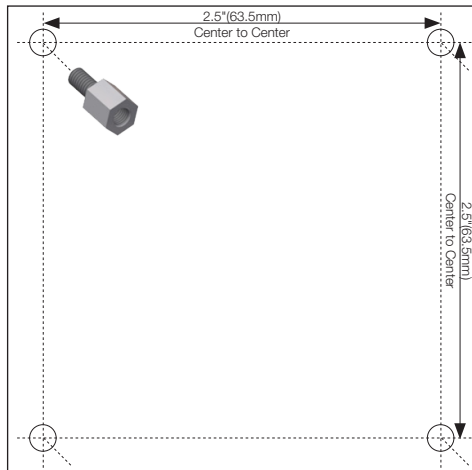
## Applicable Valve Type & Step Stroke

| VALVE TYPE                                                                           | STEP STROKE | MOTOR TYPE        |
|--------------------------------------------------------------------------------------|-------------|-------------------|
| SDR-1x, SDR-2, SDR-2x,<br>SEI-1/2 thru SEI-11                                        | 1596        | Bipolar           |
| CDS-2,4,7, SER-AA, SER-A,<br>SER-B, SER-C, SER(I)-G,<br>SER(I)-F, SER(I)-J, SER(I)-K | 2500        | Bipolar           |
| SDR-3, SDR-3x, SEI-30                                                                | 3193        | Bipolar           |
| CDS-9, CDS-16, CDS-17,<br>SDR-4, SHE                                                 | 6386        | Bipolar           |
| SER-B-U, SER-C-U,<br>SER-D-U, SER-E-U                                                | 1596        | Unipolar          |
| ESX, SEV, CEV                                                                        | 500         | Unipolar          |
| PEV, WEV                                                                             | 2000        | Bipolar, Unipolar |

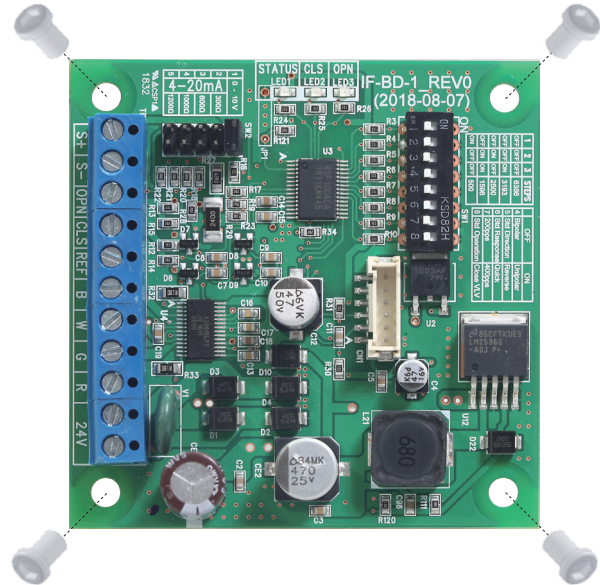
# Installation

## Mouting Instructions

- Non metallic standoffs (Not included with IB-K)



Screw standoffs in place (8-32 thread or smaller)



Screw IB-K standoffs. (Screws Not included)

## SETUP IB-K

Install jumper to see control signal



0-10V



4~20mA 300Ω



4~20mA 600Ω



4~20mA 1,000Ω



4~20mA 1,200Ω

## SETUP IB-K

Set dip switches for valve type and operation



**Notes**





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### **Key Markets**

Aftermarket services  
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Launch vehicles  
Military aircraft  
Missiles  
Power generation  
Regional transports  
Unmanned aerial vehicles

### **Key Products**

Control systems & actuation products  
Engine systems & components  
Fluid conveyance systems & components  
Fluid metering, delivery & atomization devices  
Fuel systems & components  
Fuel tank inerting systems  
Hydraulic systems & components  
Thermal management  
Wheels & brakes



## **Climate Control**

### **Key Markets**

Agriculture  
Air conditioning  
Construction Machinery  
Food & beverage  
Industrial machinery  
Life sciences  
Oil & gas  
Precision cooling  
Process  
Refrigeration  
Transportation

### **Key Products**

Accumulators  
Advanced actuators  
CO<sub>2</sub> controls  
Electronic controllers  
Filter driers  
Hand shut-off valves  
Heat exchangers  
Hose & fittings  
Pressure regulating valves  
Refrigerant distributors  
Safety relief valves  
Smart pumps  
Solenoid valves  
Thermostatic expansion valves



## **Electromechanical**

### **Key Markets**

Aerospace  
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Life science & medical  
Machine tools  
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Paper machinery  
Plastics machinery & converting  
Primary metals  
Semiconductor & electronics  
Textile  
Wire & cable

### **Key Products**

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Electric actuators, gantry robots & slides  
Electrohydraulic actuation systems  
Electromechanical actuation systems  
Human machine interface  
Linear motors  
Stepper motors, servo motors, drives & controls  
Structural extrusions



## **Filtration**

### **Key Markets**

Aerospace  
Food & beverage  
Industrial plant & equipment  
Life sciences  
Marine  
Mobile equipment  
Oil & gas  
Power generation & renewable energy  
Process  
Transportation  
Water Purification

### **Key Products**

Analytical gas generators  
Compressed air filters & dryers  
Engine air, coolant, fuel & oil filtration systems  
Fluid condition monitoring systems  
Hydraulic & lubrication filters  
Hydrogen, nitrogen & zero air generators  
Instrumentation filters  
Membrane & fiber filters  
Microfiltration  
Sterile air filtration  
Water desalination & purification filters & systems



## **Fluid & Gas Handling**

### **Key Markets**

Aerial lift  
Agriculture  
Bulk chemical handling  
Construction machinery  
Food & beverage  
Fuel & gas delivery  
Industrial machinery  
Life sciences  
Marine  
Mining  
Mobile  
Oil & gas  
Renewable energy  
Transportation

### **Key Products**

Check valves  
Connectors for low pressure fluid conveyance  
Deep sea umbilicals  
Diagnostic equipment  
Hose couplings  
Industrial hose  
Mooring systems & power cables  
PTFE hose & tubing  
Quick couplings  
Rubber & thermoplastic hose  
Tube fittings & adapters  
Tubing & plastic fittings



## **Hydraulics**

### **Key Markets**

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Agriculture  
Alternative energy  
Construction machinery  
Forestry  
Industrial machinery  
Machine tools  
Marine  
Material handling  
Mining  
Oil & gas  
Power generation  
Refuse vehicles  
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Hydraulic systems  
Hydraulic valves & controls  
Hydrostatic steering  
Integrated hydraulic circuits  
Power take-offs  
Power units  
Rotary actuators  
Sensors



## **Pneumatics**

### **Key Markets**

Aerospace  
Conveyor & material handling  
Factory automation  
Life science & medical  
Machine tools  
Packaging machinery  
Transportation & automotive

### **Key Products**

Air preparation  
Brass fittings & valves  
Manifolds  
Pneumatic accessories  
Pneumatic actuators & grippers  
Pneumatic valves & controls  
Quick disconnects  
Rotary actuators  
Rubber & thermoplastic hose & couplings  
Structural extrusions  
Thermoplastic tubing & fittings  
Vacuum generators, cups & sensors



## **Process Control**

### **Key Markets**

Alternative fuels  
Biopharmaceuticals  
Chemical & refining  
Food & beverage  
Marine & shipbuilding  
Medical & dental  
Microelectronics  
Nuclear Power  
Offshore oil exploration  
Oil & gas  
Pharmaceuticals  
Power generation  
Pulp & paper  
Steel  
Water/wastewater

### **Key Products**

Analytical Instruments  
Analytical sample conditioning products & systems  
Chemical injection fittings & valves  
Fluoropolymer chemical delivery fittings, valves & pumps  
High purity gas delivery fittings, valves, regulators & digital flow controllers  
Industrial mass flow meters/ controllers  
Permanent no-weld tube fittings  
Precision industrial regulators & flow controllers  
Process control double block & bleeds  
Process control fittings, valves, regulators & manifold valves



## **Sealing & Shielding**

### **Key Markets**

Aerospace  
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Consumer  
Fluid power  
General industrial  
Information technology  
Life sciences  
Microelectronics  
Military  
Oil & gas  
Power generation  
Renewable energy  
Telecommunications  
Transportation

### **Key Products**

Dynamic seals  
Elastomeric o-rings  
Electro-medical instrument design & assembly  
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High temperature metal seals  
Homogeneous & inserted elastomeric shapes  
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