



Highly reliable cutoff valve ideal for main gas lines, with integrated motor/hydraulic pump.

## Fluid operated 2-position cutoff valve **HK1 Series**

- NC (normally closed)
- City gas/LPG
- Port size: Rp1<sup>1/2</sup>, Rp2, Rp2<sup>1/2</sup>  
40A to 80A (JIS flange)/100A to 200A (DIN flange)



### Features

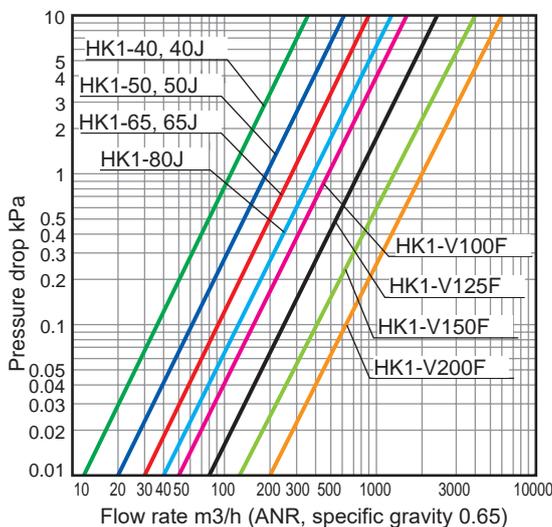
- 2-position shutdown valve with integrated motor and hydraulic pump
- Excellent performance in safe gas cutoff
- Reliable and long service-life actuator
- Indicator for checking valve open/close state
- Integrated strainer prevents foreign matter from being caught in pipes.
- With flow rate controller. For easy adjustment of calorie of gas (excluding bore sizes 125 A to 200 A)
- Pressure detection port on the body enables easy installation of the pressure switch and reduces cost for piping.
- Supplied terminal box makes wiring easier.

### Specifications

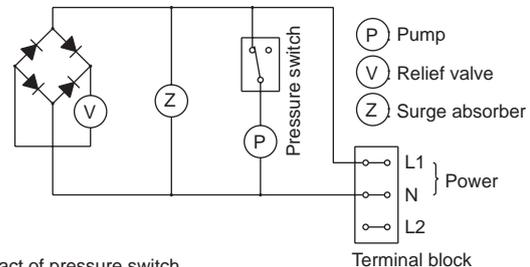
Item	HK1-40	HK1-40J	HK1-50	HK1-50J	HK1-65	HK1-65J	HK1-80J	HK1-V100F	HK1-V125F	HK1-V150F	HK1-V200F	
Working fluid	City gas/LPG (hydrogen gas *1)							City gas/LPG				
Working pressure MPa	0 to 0.4		0 to 0.25		0 to 0.2		0 to 0.14	0 to 0.1	0 to 0.06	0 to 0.04	0 to 0.023	
Flow rate <small>Specific gravity of city gas 0.65 △Pa=25Pa</small> m <sup>3</sup> /h(ANR)	59		96		145		196	287	399	601	950	
Cv	39		64		97		132	191	265	399	631	
Rated voltage V	100 AC ±10% 200 AC ±10%											
Frequency Hz	Common in 50 and 60											
Power consumption (apparent power)VA	When valve is opening											
	When valve is held open											
Ambient temperature °C	-15 to +60 (no freezing)											
Opening time s	30 or less (ambient temperature 0 to 60°C with rated voltage)											
Closing time s	1.0 or less											
Frequency cycles/min	4 or less											
Flow rate adjustment %	0 to 100								Without flow rate controller			
Mounting orientation	Vertical direction with the actuator up or horizontal direction with the terminal box side of actuator up											
Connection	Screw-in (Rp)	Flange (JIS10KRF)	Screw-in (Rp)	Flange (JIS10KRF)	Screw-in (Rp)	Flange (JIS10KRF)	Flange (DINPN16)					
Port size	1 1/2	40A	2	50A	2 1/2	65A	80A	100A	125A	150A	200A	
Weight kg	9	21.5	9.2	10.7	12.7	14.3	15.3	19	24	32	52	
Proof pressure MPa	0.6						0.2	0.12	0.08	0.05		
Degree of protection	IP54 (IP21 or equivalent with HP terminal box)											

\* 1: Only the option for hydrogen gas as the working fluid can be used.  
\* 2: DIN flange Connection includes companion flange and gasket.

### Flow characteristics



### Electric circuit Fig.



### Reference: Conversion coefficient

Converted flow rate = (flow rate in table) x (coefficient)

Gas	City gas (13A)	Propane	Butane	Hydrogen gas *1
Specific gravity (air = 1)	0.65	1.6	2.0	0.07
Coefficient	1.0	0.63	0.57	3.04

### How to order



Model No.

① Model

② Port size

\*1

③ Terminal box

\*2

④ Micro switch

⑤ Outdoor type

\*2

⑥ Working fluid

\*1

⑦ Voltage

Code	Description
<b>① Model</b>	
1	ON/OFF 2-position control
1E	ON/OFF 2-position control with micro switch

<b>② Port size</b>	
40	Screw-in Rp1 <sup>1</sup> / <sub>2</sub>
50	Screw-in Rp2
65	Screw-in Rp2 <sup>1</sup> / <sub>2</sub>
40J	JIS Flange 40A
50J	JIS Flange 50A
65J	JIS Flange 65A
80J	JIS Flange 80A
V100F	DIN Flange 100A
V125F	DIN Flange 125A
V150F	DIN Flange 150A
V200F	DIN Flange 200A

<b>③ Terminal box</b>	
Blank	None
3M	HP terminal box (G1/2)

<b>④ Micro switch</b>		
Blank	①When it is 1	Without micro switch
	①When it is 1E	With valve opening confirmation micro switch
S	①When it is 1E	With valve closing confirmation micro switch
ES	only	With valve opening/closing confirmation micro switch

<b>⑤ Outdoor type</b>	
Blank	Standard
ZZ	Outdoor type

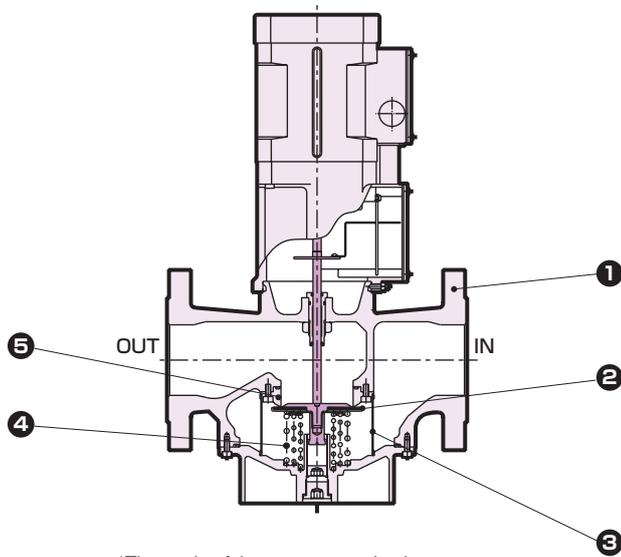
<b>⑥ Working fluid</b>	
Blank	Standard
H2	Working fluid: With hydrogen gas/hydrogen nameplate

<b>⑦ Voltage</b>	
AC100V	100 VAC 50/60 Hz
AC200V	200 VAC 50/60 Hz

\*1: When "V100F", "V125F", "V150F", or "V200F" is selected for the ② port size, ⑥ "H2" cannot be selected for the working fluid.

\*2: When "ZZ" is selected for ⑤ Outdoor type specifications, a round terminal box is automatically included and "3M" is not available for the ③ terminal box.

## Internal structure/material



\*The angle of the actuator section is changed by 90°.

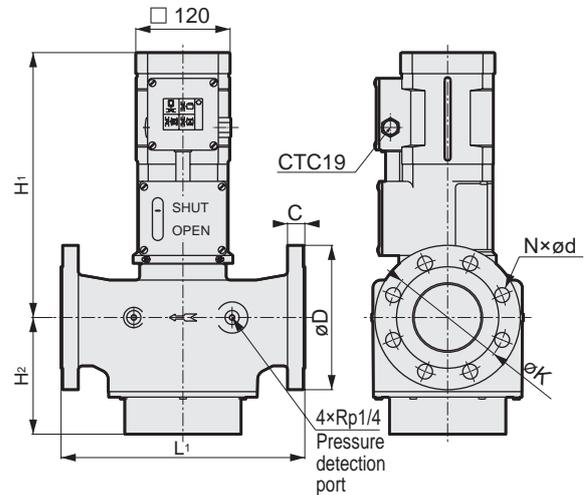
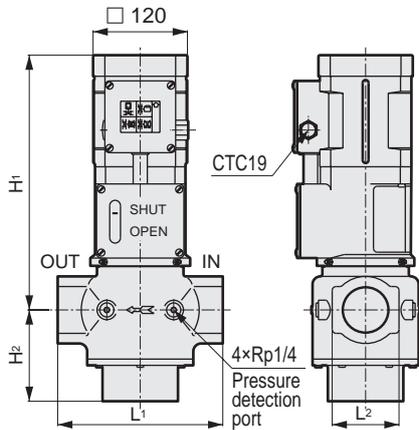
**Cannot be disassembled**

Part No.	Part name	Material
1	Body	Aluminum (except for 40J)
		Cast iron (40J)
2	Valve disc	Urethane rubber (40 to 80J)
		Nitrile rubber (V100F to V200F)
3	Filter	Stainless steel wire
4	Spring	Stainless steel wire
5	Valve seat	Aluminum

## Dimensions

● HK1-40/50/65

● HK1-40J to 80J, V100F to V200F



Code	Connection	H <sub>1</sub>	H <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	C	øD	øK	N-ød
HK1-40	Thread connection	324	114	210	70	-	-	-	-
HK1-50		327	117	210	85	-	-	-	-
HK1-65		337	140	310	100	-	-	-	-
HK1-40J	JIS flange connection	324	114	230	-	20	140	105	4x19
HK1-50J		327	117	230	-	20	155	120	4x19
HK1-65J		337	140	290	-	22	175	140	4x19
HK1-80J		340	150	310	-	22	185	150	8x19
HK1-V100F	DIN flange connection	400	163	350	-	24	229	180	8x18
HK1-V125F		450	158	400	-	26	250	210	8x18
HK1-V150F		445	173	480	-	26	285	240	8x23
HK1-V200F		475	218	600	-	30	340	295	12x23