

Air operated 2-port ball valve stainless steel full bore
(compact rotary valve)

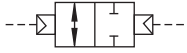
CHBF/CHBF-V* Series CHBF-R*/CHBF-X* Series

● Port size: Rc1/2 to Rc1 1/2

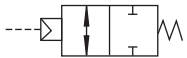


JIS symbol

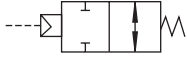
● CHBF
(double acting)



● CHBF-R1
(single acting-NC)



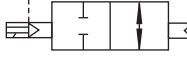
● CHBF-R2
(single acting-NO)



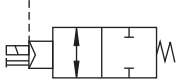
● CHBF-V1
(double acting-NC)



● CHBF-V2
(double acting-NO)



● CHBF-X1
(single acting-NC)



● CHBF-X2
(single acting-NO)



Common specifications

Descriptions	Double acting	Single acting	
	CHBF/CHBF-V*	CHBF-R*/CHBF-X*	
Actuation	Air operated, with solenoid valve		
Working fluid	Water/air/oil (500 mm ² /s or less)		
Working pressure MPa	0 to 1.0		
Proof pressure (water) MPa	2.0		
Fluid temp °C	0 to 80 (no freezing)		
Ambient temp °C	-10 to 60 (no freezing)		
Working environment	Indoors		
Mounting orientation	Unrestricted		
Frequency Cycle/min.	1 or less		
Rotary actuator	Pilot fluid	Compressed air	
	Lubrication	Not required (use turbine oil class 1 ISO VG32 if necessary for lubrication)	
	Proof pressure (water) MPa	1.5 (air operated), 1.05 (with solenoid valve)	
	Working pressure MPa	0.35 to 0.7	0.4 to 0.7
	Fluid temp °C	5 to 60	
	Port size	Rc1/8	

Electrical specifications (with solenoid valve)

Rated voltage	100 VAC (50/60 Hz), 200 VAC (50/60 Hz), 24 VDC		
Starting current (A) (with lamp)	100 VAC	0.056/0.044 (50/60 Hz)	
	200 VAC	0.028/0.022 (50/60 Hz)	
	24 VDC	0.075 (0.083)	
Holding current (A)	100 VAC	0.028/0.022 (50/60 Hz)	
	200 VAC	0.014/0.011 (50/60 Hz)	
	24 VDC	0.075	
Power consumption (W) (with lamp)	100 VAC	1.8/1.4 (1.9/1.5) (50/60 Hz)	
	200 VAC	1.8/1.4 (1.9/1.5) (50/60 Hz)	
	24 VDC	1.8 (2.0)	
Thermal class	Class 130 (B)		
Degree of protection	Dust-proof		
Voltage fluctuation range	±10%		

Individual specifications

Descriptions	Model No.	Port size	Orifice size (mm)	Cv	Weight (kg)		Weight (kg)	
					Air operated		With solenoid valve	
					Double acting	Single acting	Double acting	Single acting
Full bore	CHBF-(*)15	Rc1/2	15	23	1.1	1.2	1.3	1.4
	CHBF-(*)20	Rc3/4	20	51	1.3	2.1	1.5	2.3
	CHBF-(*)25	Rc1	25	66	2.0	2.4	2.2	2.6
	CHBF-(*)32	Rc1 1/4	32	114	2.5	4.7	2.7	4.9
	CHBF-(*)40	Rc1 1/2	40	176	3.2	5.4	3.4	5.6

*1: Weight increases by 0.2 kg with one limit switch and by 0.3 kg with two limit switches.

2: Limit switch CHBF-R-32/40 and CHBF-X*-32/40 are made-to-order products.

CHBF/CHBF-V* CHBF-R*/CHBF-X* Series

How to order

● Air operated

CHBF - **R1** - **15** - **E** - **H** - **FP2**

● With solenoid valve

CHBF - **V1** - **25** - **N** - **B** - **W** - **S** - **AC100V**

A Actuator

B Port size

C Body material

D Coil option

E Limit switch

F Other options

G Voltage

H Series

Code	Content	Air operated	With solenoid valve
A Actuator			
Blank	Double acting	●	
R1	Single acting NC (normally closed)	●	
R2	Single acting NO (normally open)	●	
V1	Double acting NC (normally closed)		●
V2	Double acting NO (normally open)		●
X1	Single acting NC (normally closed)		●
X2	Single acting NO (normally open)		●
B Port size			
15	Rc1/2	●	●
20	Rc3/4	●	●
25	Rc1	●	●
32	Rc1 1/4	●	●
40	Rc1 1/2	●	●
C Body material			
E	Stainless steel	●	●
N	Stainless steel/oil-prohibited specifications	●	●
D Coil option			
Blank	Grommet lead wire		●
B	Compact terminal box		●
L	Compact terminal box with lamp (surge suppressor is built into the DC type)		●
C	C-connector with lead wire		●
C2	C-connector with lead wire with surge suppressor and indicator lamp		●
D	D-connector with lead wire		●
D2	D-connector with lead wire with surge suppressor and indicator lamp		●
E Limit switch *1 *2 *3			
Blank	Without switch	●	●
H	Detection at valve open	●	●
V	Detection at valve closed	●	●
W	With 2 switches	●	●
F Other options			
Blank	No	●	●
S	Metering valve with silencer *4		●
G Voltage			
AC100V	100 VAC 50 Hz/60 Hz, 110 VAC/60 Hz		●
AC200V	200 VAC 50 Hz/60 Hz, 220 VAC/60 Hz		●
DC24V	24 VDC		●
H Series			
Blank	Standard	●	●
FP2	Series for food manufacturing processes	●	
P4	Series for components for rechargeable battery production	●	

[Example of model No.]

CHBF-R1-15-E-W

Model name: CHBF (Full bore)

A Actuator: Single acting NC (normally closed)

B Port size: Rc1/2

C Body material: Stainless steel

E Limit switch: Two switches

1: CHBF-R-32/40 and CHBF-X*-32/40 with limit switch are made-to-order products.

*2: OMRON D4E-1G20N

*3: The limit switch option is not available for the FP2 and P4 Series.

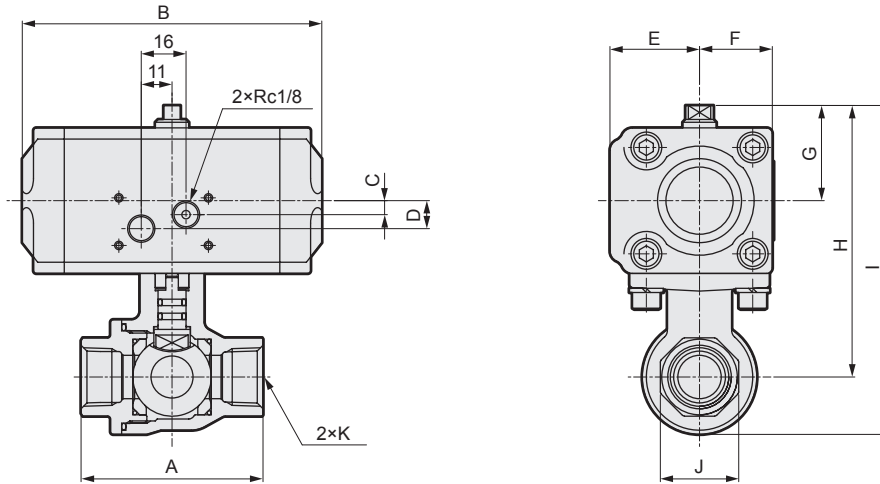
*4: CKD SMW2-6A is attached with the product.

CHBF/CHBF-R* Series

Dimensions: CHBF/CHBF-R* Series

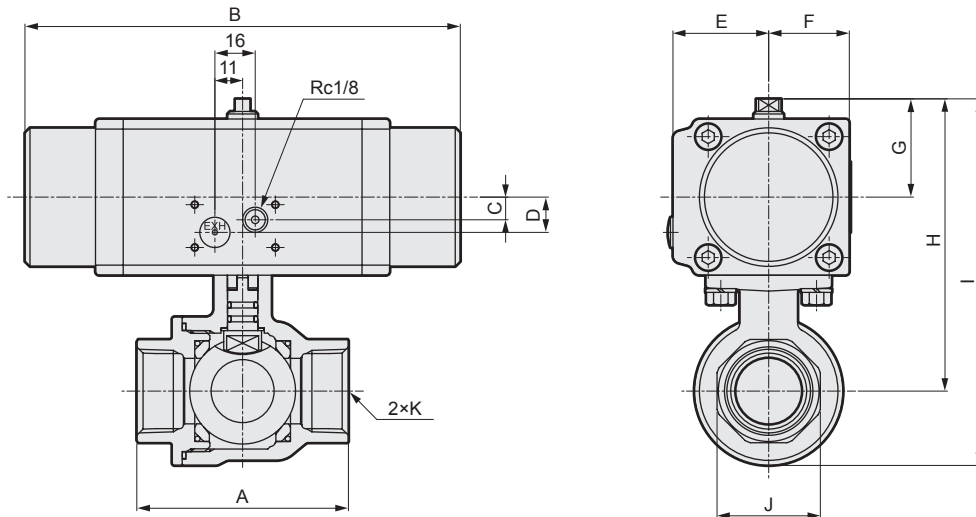


- CHBF-15/20/25/32/40
CHBF-R*-15

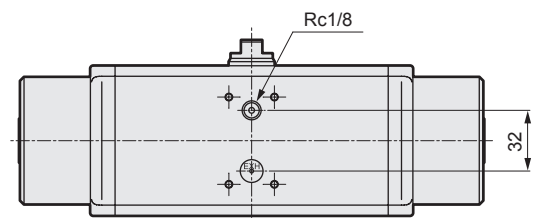


Model No.	A	B	C	D	E	F	G	H	I	J	K
CHBF-15	65	107	5	10	32	26	34	97	117.5	28	Rc1/2
CHBF-R*-15								100	124	34	Rc3/4
CHBF-20	71	125	9	14	38	32	39	116	144.5	41	Rc1
CHBF-25	84							122	156.5	50	Rc1 1/4
CHBF-32	95							131	171.5	57	Rc1 1/2
CHBF-40	107										

- CHBF-R*-20/25/32/40



- CHBF-R*-32/40 Actuator

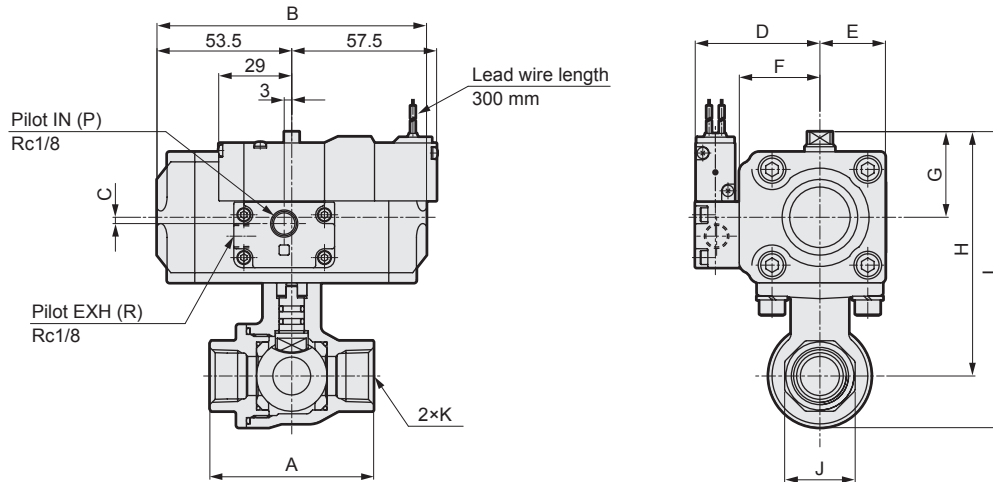


Model	A	B	C	D	E	F	G	H	I	J	K
CHBF-R*-20	71	173	9	14	38	32	39	110	134	34	Rc3/4
CHBF-R*-25	84							116	144.5	41	Rc1
CHBF-R*-32	95	244	-	-	43	38	53	156.5	191	50	Rc1 1/4
CHBF-R*-40	107		-	-				165.5	206	57	Rc1 1/2

Dimensions: CHBF-V*/CHBF-X* Series

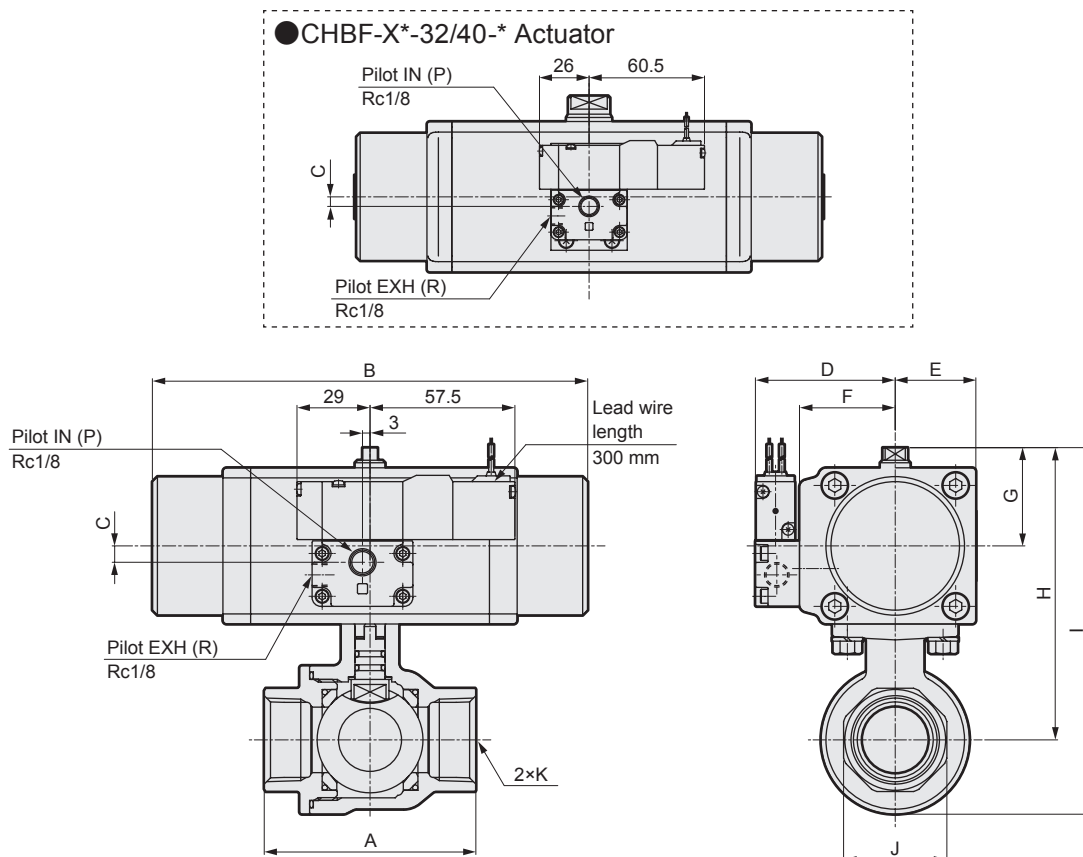


- CHBF-V*-15/20/25/32/40*
CHBF-X*-15*



Model No.	A	B	C	D	E	F	G	H	I	J	K
CHBF-V*-15*	65	107	2.5	49.5	26	32	34	97	117.5	28	Rc1/2
CHBF-X*-15*								100	124	34	Rc3/4
CHBF-V*-20*	71	125	6.5	55.5	32	38	39	116	144.5	41	Rc1
CHBF-V*-25*	84							122	156.5	50	Rc1 1/4
CHBF-V*-32*	95							131	171.5	57	Rc1 1/2
CHBF-V*-40*	107										

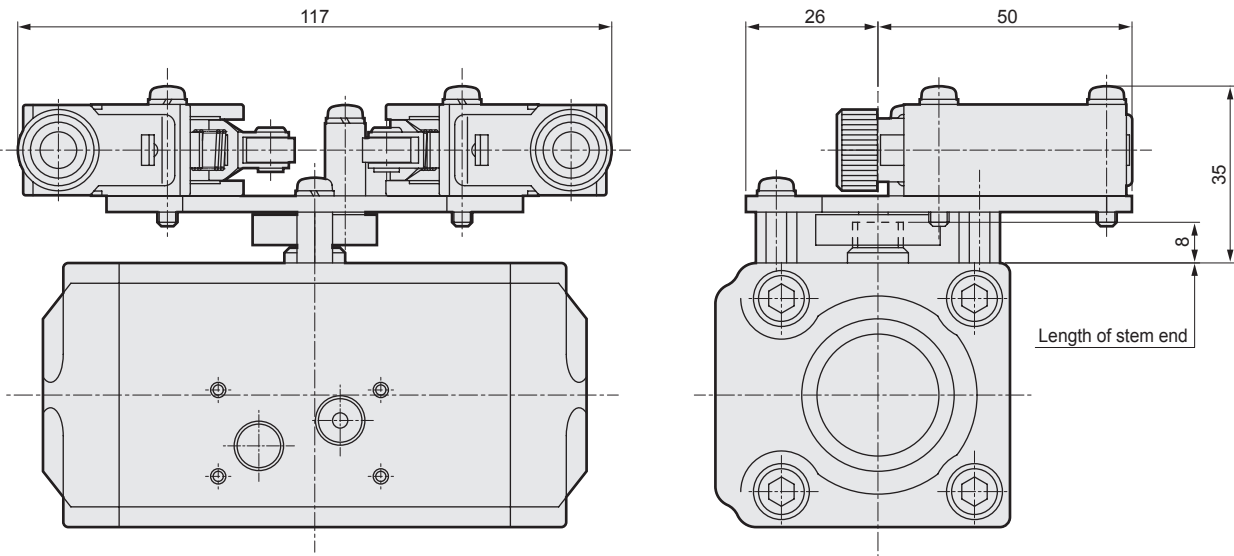
- CHBF-X*-20/25/32/40*



Model	A	B	C	D	E	F	G	H	I	J	K
CHBF-X*-20*	71	173	6.5	55.5	32	38	39	110	134	34	Rc3/4
CHBF-X*-25*	84							116	144.5	41	Rc1
CHBF-X*-32*	95	244	5	70.5	38	43	53	156.5	191	50	Rc1 1/4
CHBF-X*-40*	107							165.5	206	57	Rc1 1/2

Optional dimensions

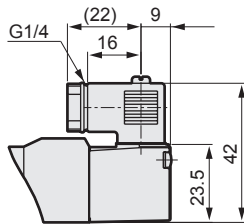
● Limit switch



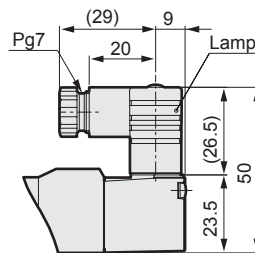
* Product with limit switch is 27 mm higher.

● Compact terminal box: (B [without indicator lamp]/L [with indicator lamp])

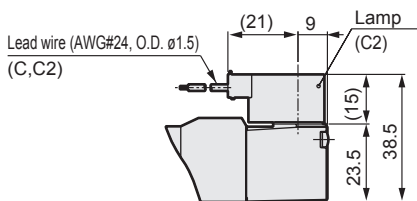
Without indicator lamp



With indicator lamp



● C-connector: (C/C2)



● D-connector: (D/D2)

