

CT-100

■Features

1. Versatile application with equal percentage characteristics and 50:1 rangeability.
2. Stainless steel trim provides excellent sealing (ANSI Class IV seat leakage).
3. Easy to service.



■Specifications

Model		CT-100	
Nominal size		15-32A	40A-50A
Application	Controlled fluid	Steam, air, cold and hot water, oil, other non-dangerous fluids	
	Driving fluid	Compressed air	
Connection		JIS 10KRF/20KRF, EN PN16/25, ASMEclass150/300 flanged	
Maximum working differential pressure	Standard type	2.5MPa*1	1.0MPa
	High pressure type		2.5MPa*1
Working temperature		-5 to 250°C (no freezing) *1	
Valve characteristic		Equal percentage	
Rangeability		50:1	
Seal (valve and seat)		Metal to metal	
Seat leakage		Cv x 0.01% or less (ANSI Class IV) *2	
Ambient temperature		-20 to 60°C	
Actuator	Type	Pneumatic single-acting diaphragm actuator	
	Action	Reverse Acting (normally closed) or Direct Acting (normally open)	
	Air pressure	0.1-0.3MPa *3	
Material	Body	Ductile cast iron	
	Valve	Stainless steel(SUS316 or 316L)	
	Valve seat	Stainless steel(SUS316 or 316L)	
	Gasket	Graphite + Stainless steel	
	Gland packing	Graphite	
Accessories (option)		DC 4-20mA E/P positioner + Air regulator	
		DC 4-20mA E/P smart positioner + Air regulator	
		Positioner Mounting Kit (Reverse Acting Only)	

*1 The relation between maximum pressure and maximum temperature is according to the table below.

*2 Please refer to the table on the next page for the rated CV values.

*3 Supply a pressure of 0.4 to 0.7 MPa to the positioner (optional accessory regulator) to ensure full travel.

■Maximum working pressure

Flange	Temperature (degC)			
PN	-5 to 120	150	200	250
16	1.60MPa	1.55MPa	1.47MPa	1.39MPa
25	2.50MPa	2.43MPa	2.30MPa	2.18MPa

Flange	Temperature (degC)			
ASME	-5 to 120	150	200	250
150	2.00MPa	1.95MPa	1.87MPa	1.79MPa
300	2.50MPa	2.43MPa	2.30MPa	2.18MPa

Flange	Temperature (degC)			
JIS	-5 to 120	150	200	250
10K	1.00MPa	0.97MPa	0.92MPa	0.87MPa
20K	2.00MPa	1.95MPa	1.87MPa	1.79MPa

■Cv Value

Pressure rating	Max. differential pressure	Nominal Size					
		15A	20A	25A	32A	40A	50A
PN16	1.0MPa	4.6 (CV005)	8.6 (CV009)	13.3 (CV013)	18.5 (CV018)	28.9 (CV028)	41.6 (CV042)
	1.6MPa					24.8 (CV025)	36.2 (CV036)
PN25	1.0MPa					28.9 (CV028)	41.6 (CV042)
	1.6MPa					24.8 (CV025)	36.2 (CV036)
	2.5MPa						

Pressure rating	Max. differential pressure	Nominal Size					
		15A	20A	25A	32A	40A	50A
ASMEclass150 (PN20)	1.0MPa	4.6 (CV005)	8.6 (CV009)	13.3 (CV013)	18.5 (CV018)	28.9 (CV028)	41.6 (CV042)
	2.0MPa					24.8 (CV025)	36.2 (CV036)
ASMEclass300 (PN50)	1.0MPa					28.9 (CV028)	41.6 (CV042)
	2.5MPa					24.8 (CV025)	36.2 (CV036)

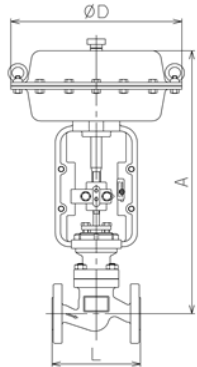
Pressure rating	Max. differential pressure	Nominal Size					
		15A	20A	25A	32A	40A	50A
JIS10KRF	1.0MPa	4.6 (CV005)	8.6 (CV009)	13.3 (CV013)	18.5 (CV018)	28.9 (CV028)	41.6 (CV042)
JIS20KRF	1.0MPa					28.9 (CV028)	41.6 (CV042)
	2.0MPa					24.8 (CV025)	36.2 (CV036)

*The values in parentheses are Nominal Cv used in the model code. Please refer to the next page.

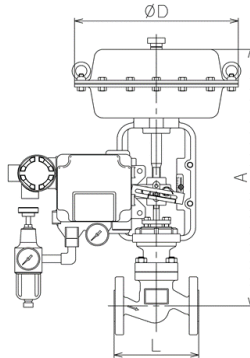
Control Valve

■Dimensions (mm) and Weights (kg)

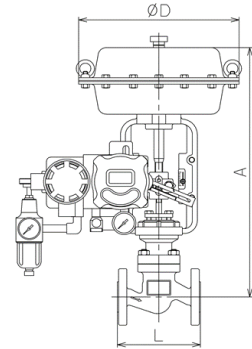
●No accessories



●With E/P positioner and air regulator



●With Smart positioner and air regulator



EN PN16/25

Nominal Size	L	H	A	Stroke	Weight		
					No accessories	With E/P positioner	With smart positioner
15A	130	464	290	25	19	23	24
20A	150				20	24	25
25A	160				21	25	26
32A	180	465			23	27	28
40A	200	468			25	29	30
50A	230	576	360	40	38	42	43

JIS 10KRF/ASME class150RF Flange

Nominal Size	L	H	A	Stroke	Weight		
					No accessories	With E/P positioner	With smart positioner
15A	184	464	290	25	20	24	25
20A	184				21	25	26
25A	184				22	26	27
32A	222	465			24	28	29
40A	222	468			26	30	31
50A	254	576	360	40	39	43	44

JIS 20KRF/ASME class300RF Flange

Nominal Size	L	H	A	Stroke	Weight		
					No accessories	With E/P positioner	With smart positioner
15A	184	464	290	25	20	24	25
20A	184				21	25	26
25A	184				22	26	27
32A	222	465			24	28	29
40A	222	468			26	30	31
50A	254	576	360	40	39	43	44

■Description of CT-100 model code

CT-100 - □ □ □ E □ - □ □ - CV □											
Pressure rating	PN16										PN16 flanged
	PN25										PN16 flanged
	JS10										JIS10KRF flanged
	JS20										JIS20KRF flanged
	AS15										ASMEclass150(PN20) flanged
	AS30										ASMEclass300(PN50) flanged
Max. working differential pressure	10										Max. 1.0MPa
	16										Max. 1.6MPa (not available for AS15, AS30, JIS10K, JIS20K)
	20										Max. 2.0MPa (not available for PN16,PN25, AS30, JIS10K)
	25										Max. 2.5MPa (not available for PN16, AS15, JIS10K, JIS20K)
Nominal size	DN015										15A
	DN020										20A
	DN025										25A
	DN032										32A
	DN040										40A
	DN050										50A
Valve characteristic				E							Equal percentage
Actuator				DA							Direct Acting (Normally open)
				RA							Reverse Acting (Normally closed)
Positioner					N						No positioner
					E						E/P positioner
					S						Smart positioner
EAC certificate					N						Without EAC certificate
					E						With EAC certificate (not available with positioner)
Nominal Cv								CV			Nominal Cv