

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		15-65A	
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	1.0MPa
	High pressure type		2.5MPa
Working temperature		-5 to 250℃ (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	
Actuator	Type	Pneumatic single-acting diaphragm actuator	
	Action	Reverse Acting (normally closed)	
		Direct Acting (normally open)	
	Air pressure	0.1-0.3MPa *3	
Ambient temperature		-20 to 60℃	
Material	Body	Ductile cast iron(FCD 450)	
	Valve(15-50A)	Stainless steel(SUS316 or 316L)	
	Valve(65A)	Stainless steel(316L)	
	Valve seat(15-50A)	Stainless steel(SUS316 or 316L)	
	Valve seat(65A)	Stainless steel(SUS304)	
	Gasket	Stainless Steel + Graphite Coating	
	Gland packing	Graphite	
	Diaphragm	NBR	
	Pressure-Balanced Trim	PTFE + Stainless Steel	
Accessories (Standard Option)		Electro-Pneumatic (E/P) Positioner with Air Regulator	
		Smart Positioner (S/P) with Air Regulator	
Accessories (Options for Overseas Markets)		Positioner Mounting Kit for 15–65A (Reverse-Acting Only)	
		Intelligent Positioner(I/P) with Air Regulator	

*1 The body and bonnet are made of FCD450 ductile cast iron

. When handling high-temperature fluids, ensure that the pressure–temperature ratings are not exceeded. For details, refer to the Instruction Manual.

*2 Refer to the Cv Value Table for the rated Cv values.

*3 To ensure reliable full-stroke operation, supply the positioner (including the optional air regulator) with an air pressure of 0.4–0.7 Mpa.

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

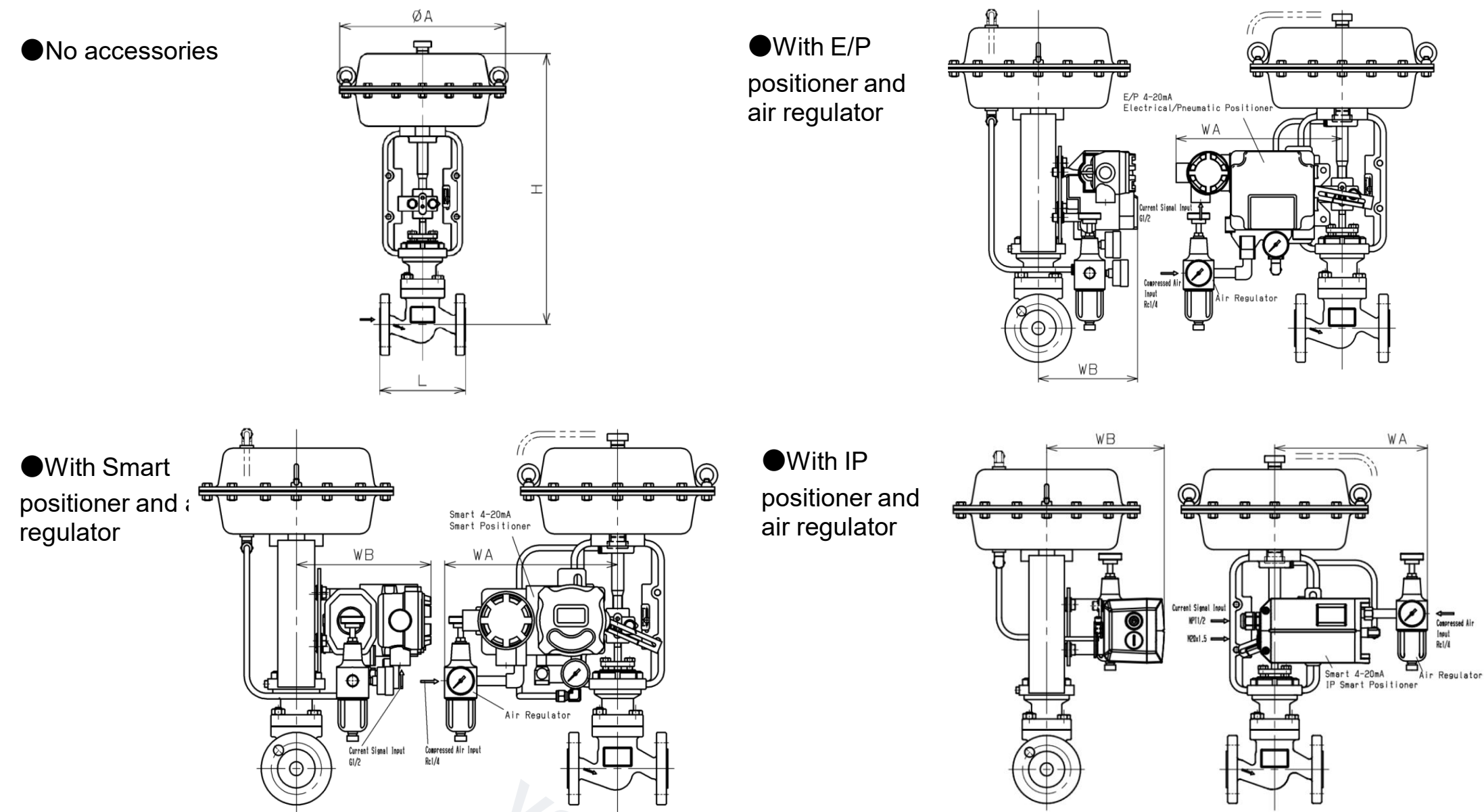
Pressure rating	Max. differenti	Nominal Size						
		15A	20A	25A	32A	40A	50A	65A
PN16	1.0MPa	4.6 (CV005)	8.6 (CV009)	13.3 (CV013)	18.5 (CV018)	28.9 (CV028)	41.6 (CV042)	73.0 (CV073)
	1.6MPa					24.8 (CV025)	36.2 (CV036)	
PN25	1.0MPa					28.9 (CV028)	41.6 (CV042)	
	1.6MPa					24.8 (CV025)	36.2 (CV036)	
	2.5MPa							

Pressure rating	Max. differenti	Nominal Size						
		15A	20A	25A	32A	40A	50A	65A
ASMEclass150 (PN20)	1.0MPa	4.6 (CV005)	8.6 (CV009)	13.3 (CV013)	18.5 (CV018)	28.9 (CV028)	41.6 (CV042)	73.0 (CV073)
	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. differenti	Nominal Size						
		15A	20A	25A	32A	40A	50A	65A
JIS10KRF	1.0MPa	4.6 (CV005)	8.6 (CV009)	13.3 (CV013)	18.5 (CV018)	28.9 (CV028)	41.6 (CV042)	73.0 (CV073)
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.

■Dimensions (mm) and Weights (kg)



EN PN16/25

Nominal Size	L	H	A	Stroke	WA	WB	Weight			
							No accessories	With E/P positioner	With smart positioner	With IP positioner
15A	130	464	290	25	262	157	19	23	24	22
20A	150						20	24	25	23
25A	160						21	25	26	24
32A	180						23	27	28	26
40A	200	468	360	40	281	160	25	29	30	28
50A	230	576					38	42	43	41
65A	290	621					53	57	58	56

JIS 10KRF/ASME class150RF Flange

Nominal Size	L	H	A	Stroke	WA	WB	Weight			
							No accessories	With E/P positioner	With smart positioner	With IP positioner
15A	184	464	290	25	262	157	20	24	25	23
20A	184						21	25	26	24
25A	184						22	26	27	25
32A	222						24	28	29	27
40A	222	468	360	40	281	160	26	30	31	29
50A	254	576					39	43	44	42
65A	276	621					53	57	58	56

JIS 20KRF/ASME class300RF Flange

Nominal Size	L	H	A	Stroke	WA	WB	Weight			
							No accessories	With E/P positioner	With smart positioner	With IP positioner
15A	184	464	290	25	262	157	20	24	25	23
20A	184						21	25	26	24
25A	184						22	26	27	25
32A	222						24	28	29	27
40A	222	468	360	40	281	160	26	30	31	29
50A	254	576					39	43	44	42
65A	292	621					53	57	58	56

CT-100 Product Identification Code

CT-100 — ☐ ☐ ☐ E ☐ — ☐ ☐ — CV ☐										Description
① ② ③ ④ ⑤ ⑥ ⑦ ⑧										
①Pressure Rating	PN16									PN16 flanged
	PN25									PN16 flanged
	JS10									JIS10KRF flanged
	JS20									JIS20KRF flanged
	AS15									ASME Class150(PN20) flanged
	AS30									ASME Class300(PN50) flanged
②Max. 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)
③Nominal Size	DN015									15A
	DN020									20A
	DN025									25A
	DN032									32A
	DN040									40A
	DN050									50A
	DN065									65A
④Valve Characteristic				E						Equal percentage
⑤Actuator				DA						Direct Acting (Normally open)
				RA						Reverse Acting (Normally closed)
⑥Positioner						N				No positioner
						E				E/P positioner
						S				Smart positioner
						I				IP positioner
⑦EAC Certificate						N				Without EAC certificate
						E				With EAC certificate (not available with positioner)
⑧Nominal Cv							CV	xxx	Refer to the Cv Value table for the Cv code	