



PREX3000 VECTOR INVOLUTE TYPE PNEUMATIC DIFFERENTIAL PRESSURE TRANSMITTERS

MODEL: KDP 71/72 (REMOTE SEAL DIAPHRAGM TYPE)

The PREX3000 instruments are pneumatic type transmitters which employ a combination of vector balance mechanism and involute mechanism.

The instruments are featured by high resistance against adverse environments, high turn-down ratio, high accuracy, and ease of maintenance.

Standard Specifications

Item	Specifications
Measuring range (continuously adjustable)	KDP 71: 0-2,500 to 0-50,000 mmH ₂ O KDP 72: 0-250 to 0-5,500 mmH ₂ O
Process connection	Flange connection (both HP and LP side) Flush diaphragm type: 80mm- JIS 10K, 30K (RF) equivalent flange 3" – ANSI 150, 300 (RF) equivalent flange Extended diaphragm type: 100mm- JIS 10K, 30K (RF) equivalent flange 4" – ANSI 150, 300 (RF) equivalent flange
Capillary tube length	2, 3, or 5m
Sp. gr. of liquid fill	0.935 at 25°C
Air supply connection	Rc ¼ or ¼ NPT internal thread
Air supply pressure	1.4±0.14 kgf/cm ²
Output	0.2-1.0 kgf/cm ² or 3-15 PSI
External load	ID 4 mm x Length 3 m + 20 cm ³ or over
Air supply capacity	20N ℓ / minute or over, with 50 mmHg change
Air consumption	5 N ℓ / minute or less (when balanced at output 100%)
Accuracy	KDP 71: ±0.5% FS (for spans 0-5,000 to 0-50,000 mmH ₂ O) ±1.0% FS (for spans 0-2,500 to 0-less than 5,000 mmH ₂ O) KDP 72: ±0.5% FS (for spans 0-500 to 0-5,500 mmH ₂ O) ±1.0% FS (for spans 0-250 to 0-less than 500 mmH ₂ O)
Dead band	0.1% FS
Working pressure	-0.5 kgf/cm ² to maximum flange rated pressure.
Operating temperature	Meter body (process fluid): -40 to +120°C Transmitter (ambient): -30 to +80°C
Operating humidity	10 to 90% RH
Overload protection	Up to maximum flange rated pressure in either direction
Construction	Dustproof and waterproof, meets: IEC IP54, NEMA Type 3R, JIS F8001 Class 3 splashproof, JIS C0920 rainproof
Materials	Center body: SUS304 Flange: Carbon steel (SF45A), SUS304 Wetted parts: SUS316 (diaphragm: SUS316L), SUS316L, MONEL, Tantalum Capillary tube: SUS316 Armored tube: SUS304 Transmitter case: Aluminium alloy
Finish	Acryl baking finish Color: Light beige (MUNSELL 4Y 7.2 / 1.3)
Mounting	Directly flange mounted to process flange. (transmitter body is mounted on vertical or horizontal 2 inch pipe)
Net weight	Approx. 17.5kg (80 mm – JIS 10K flange, add 0.8 kg for air-set)

Optional Specifications

Item	Specifications			
(1) Suppression and elevation	(unit: mmH ₂ O)			
	Model No.	Span	Suppression (max.)	Elevation (max.)
	KDP71	2,500-50,000	50,000	47,500
	KDP72	250-5,500	5,500	5,250
	(note: elevation + span \leq maximum span, suppression \leq maximum span)			
(2) Air-set (filter and pressure regulator)	Primary pressure:	2-9.9 kgf/cm ²		
	Secondary pressure:	1.4 kgf/cm ²		
	Filter mesh diameter:	5 microns		
	Connections:	Rc ¼ or ¼ NPT internal thread		

Model Number Table

Ex: KDP82-2222A1-5.7

Basic Model No.	Cover Mat'l		Wetted Parts Mat'l		Flange Rating	Capillary Tube Length	Length of Extended Part of Flange	Air Piping Connection	Pneumatic Signal. AUGE Scale Unit	Options	Description
	HP	LP	HP	LP							
KDP71											0-2,500 to 0-50,000 mmH ₂ O
KDP72											0-250 to 0-5,500 mmH ₂ O
		-1									Carbon steel (SF45A)
		-7									SUS304
				1							Carbon steel (SF45A)
				7							SUS304
										2	SUS316 (diaphragm: SUS316L)
										3	MONEL (excluding extended diaphragm type)
										4	Tantalum (excluding extended diaphragm type)
										8	SUS316L
										2	SUS316 (diaphragm: SUS316L)
										3	MONEL (excluding extended diaphragm type)
										4	Tantalum (excluding extended diaphragm type)
										8	SUS316L
										1	Flush diaphragm type: 80mm- JIS 10K (RF) equiv. flange
										2	Flush diaphragm type: 80mm- JIS 30K (RF) equiv. flange
										3	Flush diaphragm type: 3" – ANSI 150 (RF) equiv. flange
										4	Flush diaphragm type: 3" – ANSI 300 (RF) equiv. flange
										5	Extended diaphragm type: 100mm- JIS 10K (RF) equiv. flange
										6	Extended diaphragm type: 100mm- JIS 10K (RF) equiv. flange
										7	Extended diaphragm type: 4" – ANSI 150 (RF) equiv. flange
										8	Extended diaphragm type: 4" – ANSI 300 (RF) equiv. flange
										9	Special requirement
										02	ℓ = 2 m
										03	ℓ = 3 m
										05	ℓ = 5 m
										00	Flush diaphragm type
										10	L = 100 mm (extended diaphragm type)
										15	L = 150 mm (extended diaphragm type)
										A	Rc ¼ internal thread
										B	¼ NPT internal thread
										1	0.2~1.0 kgf/cm ²
										2	3~15 psi
										3	0.2~1.0 bar
										4	20~100 Kpa
										-X	No option
										-5	Elevation
										-6	Suppression
										-7	Air-set

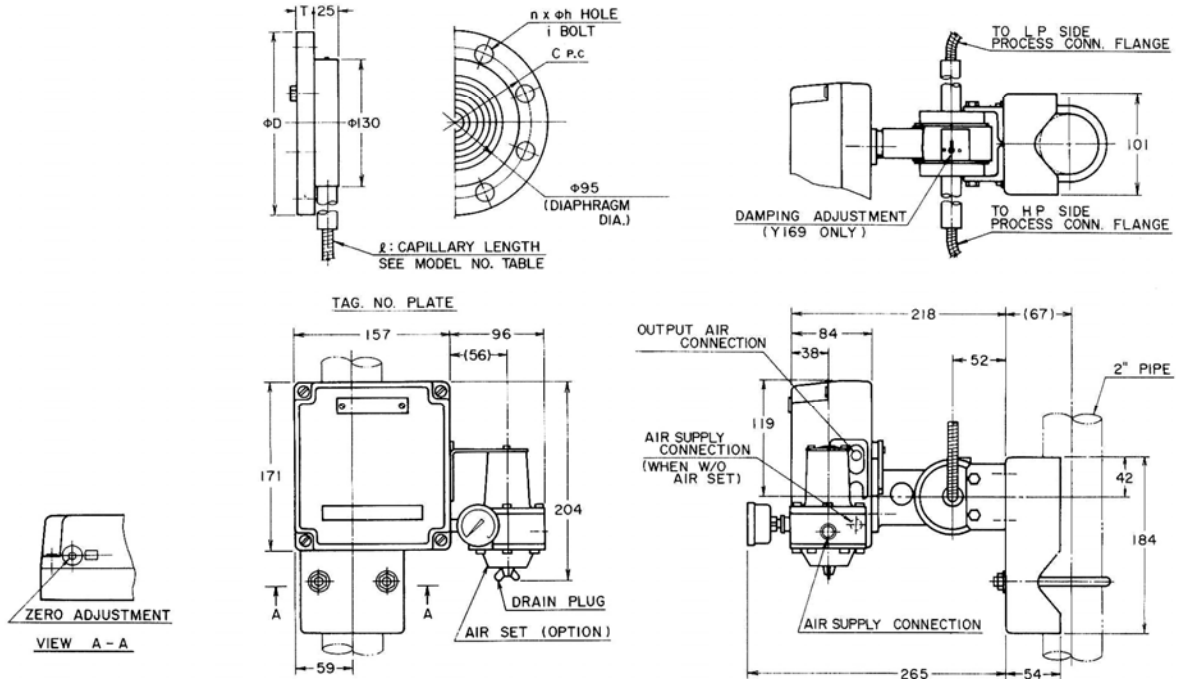
Dimensions

(Unit: mm)

Flush Diaphragm Type

Flange Dimensions

ITEM	FLANGE RATING	D	T	C	n	h	i BOLT
1	80 mm JIS 10K RF	185	18	150	8	19	M16
2	80 mm JIS 30K RF	210	28	170	8	23	M20
3	3" ANSI 150 RF	191	24	152.4	4	19	5/8
4	3" ANSI 300 RF	210	29	168.3	8	22	3/4
A	3" JPI 150 RF	191	24	152.4	4	19	5/8
B	3" JPI 300 RF	210	29	168.3	8	22	3/4



Extended Diaphragm Type

Flange Dimensions

ITEM	FLANGE RATING	D	T	C	n	h	i BOLT
5	100 mm JIS 10K RF	210	18	175	8	19	M16
6	100 mm JIS 30K RF	240	32	195	8	25	M22
7	4" ANSI 150 RF	229	24	190.5	8	19	5/8
8	4" ANSI 300 RF	254	32	200	8	22	3/4
C	4" JPI 150 RF	229	24	190.5	8	19	5/8
D	4" JPI 300 RF	254	32	200	8	22	3/4

