

PREX3000 VECTOR INVOLUTE TYPE PNEUMATIC DIFFERENTIAL PRESSURE TRANSMITTERS

MODEL: KDP 61/62 (FLANGE 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 61: 0-2,500 to 0-50,000 mmH ₂ O		
	KDP 62: 0-250 to 0-5,500 mmH ₂ O		
Process connection	Measuring side (liquid level):	Flange connection	
	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			
Reference side:	Rc ½ or ½ NPT internal thread		
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 × Length 3 m + 20 cm ³ or over		
Air supply capacity	20Nℓ / minute or over, with 50 mmHg change		
Air consumption	5 Nℓ / minute or less (when balanced at output 100%)		
Accuracy	KDP61:	±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)	
	KDP62:	±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. (differs by material cover) [refer to Fig. 1]		
Operating temperature	Meter body (process fluid): -40 to +120°C		
	Transmitter (ambient):	-30 to +80°C [refer to Fig. 1]	
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	
	Wetted parts of flange side and those of center body:	SUS316 (diaphragm: SUS316L), SUS316L, MONEL, Tantalum	
	Meter body cover :	Reference side:	Carbon steel (SF45A), SUS316, MONEL, PVC (reinforced with SUS304 plates, working pressure range: -0.1 to +15 kgf/cm ² operating temperature range: 0 to 55°C)
		Measuring side:	Carbon steel (SF45A), SUS304
	Flange:	Carbon steel (SF45A), SUS304	
	Gasket (reference pressure side):	Teflon	
Transmitter case:	ALUMINIUM alloy		
Finish	Acryl baking finish Color: Light beige (MUNSELL 4Y 7.2 / 1.3)		
Mounting	Directly flange mounted to process flange.		
Net weight	Approx. 13kg (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.)
	KDP61	2,500-50,000	50000	47,500
	KDP62	250-5,500	5500	5,250
	(note: elevation + span ≒ maximum span, suppression ≒ 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: KDP62-1122100A1-5.7

Basic Model No.	Flange & Cover Mat'l		Wetted Parts Mat'l		Flange Rating	Length of Extended Part of Flange	Air Piping Connection	Pneumatic Signal. Gauge Scale Unit	Options	Description
	Measuring side	Reference side	Measuring side	Reference side						
KDP 61										0-2,500 to 0-50,000 mmH ₂ O
KDP 62										0-250 to 0-5,500 mmH ₂ O
	-1									Carbon steel (SF45A)
	-7									SUS304
		1								Carbon steel (SF45A)
		2								SUS316
		3								MONEL
		5								PVC
			2							SUS316 (diaphragm: SUS316L)
			3							MONEL (excluding extended diaphragm type)
			4							Tantalum (excluding extended diaphragm type)
			8							SUS316L
				2						SUS316 (diaphragm: SUS316L)
				3						MONEL
				4						Tantalum
				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
					00					Flush diaphragm type
					10					Extended diaphragm type 100 mm
					15					Extended diaphragm type 150 mm
							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

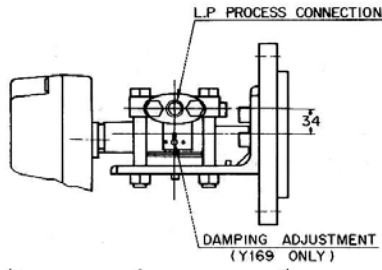
Dimensions

(Unit: mm)

Flush Diaphragm Type

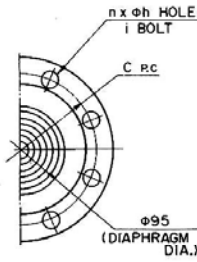
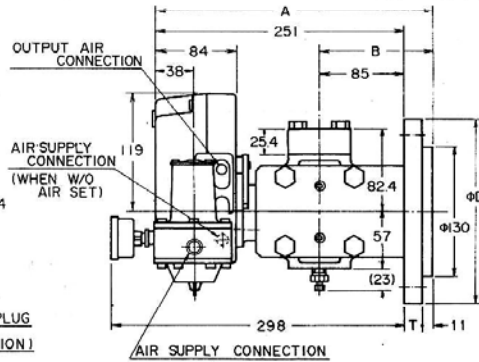
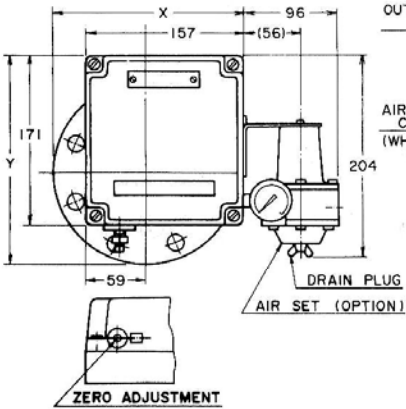
Main Dimensions

ITEM	FLANGE RATING	A	B	X	Y
1	80 mm JIS 10K RF	280	114	190.5	211.5
2	80 mm JIS 30K RF	290	124	203	224
3, A	3" ANSI/JPI 150 RF	286	120	193.5	214.5
4, B	3" ANSI/JPI 300 RF	291	125	203	224



Flange Dimensions

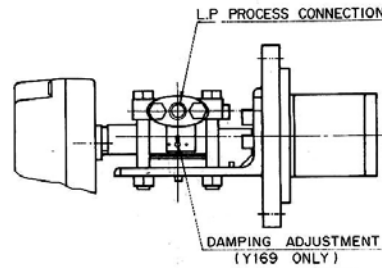
ITEM	FLANGE RATING	D	T	C	n	h	i BOLT
1	80 mm JIS 10K RF	185	18	150	8	19	M16
2	80 mm JIS 30K RF	210	28	170	8	23	M20
3	3" ANSI 150 RF	191	24	152.4	4	19	5/8
4	3" ANSI 300 RF	210	29	168.3	8	22	3/4
A	3" JPI 150 RF	191	24	152.4	4	19	5/8
B	3" JPI 300 RF	210	29	168.3	8	22	3/4



Extended Diaphragm Type

Main Dimensions

ITEM	FLANGE RATING	A	B	X	Y
5	100 mm JIS 10K RF	280	114	203	224
6	100 mm JIS 30K RF	294	128	218	239
7, C	4" ANSI/JPI 150 RF	288	120	212.5	233.5
8, D	4" ANSI/JPI 300 RF	294	128	225	246



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

