

## PREX3000 VECTOR INVOLUTE TYPE PNEUMATIC DIFFERENTIAL PRESSURE TRANSMITTERS



### MODEL: KDP 11/22 (STANDARD TYPE FOR HIGH OR MEDIUM DIFFERENTIAL PRESSURE)

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)	KDP11: 0-2,500 to 0-50,000 mmH <sub>2</sub> O	
	KDP22: 0-250 to 0-5,500 mmH <sub>2</sub> O	
Process connection	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 <sup>2</sup>	
Output	0.2-1.0 kgf/cm <sup>2</sup> or 3-15 psi	
External load	ID 4 mm × Length 3 m + 20 cm <sup>3</sup> 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	KDP11:	±0.25% FS (for spans 0-5,000 to 0-50,000 mmH <sub>2</sub> O)
		±0.5% FS (for spans 0-2,500 to 0-less than 5,000 mmH <sub>2</sub> O)
	KDP22:	±0.25% FS (for spans 0-500 to 0-5,500 mmH <sub>2</sub> O)
		±0.5% FS (for spans 0-250 to 0-less than 500 mmH <sub>2</sub> O)
Dead band	0.1% FS	
Working pressure	-0.5 to +100 kgf/cm <sup>2</sup> (differs by material of 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	100 kgf/cm <sup>2</sup> (on one side)	
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 center body:	SUS316 (diaphragm: SUS316L), SUS316L, MONEL, Tantalum
	Meter body cover (differential pressure chambers):	Carbon steel (SF45A), SUS316, MONEL, PVC (reinforced with SUS304 plates, working pressure range: -0.1 to +15 kgf/cm <sup>2</sup> , operating temperature range: 0 to 50°C)
	Wetted parts gasket:	Teflon
	Transmitter case:	ALUMINIUM alloy
Finish	Acryl baking finish Color: Light beige (MUNSELL 4Y 7.2 / 1.3)	
Mounting	On vertical or horizontal 2-inch pipe.	
Net weight	Approx. 8kg (add 0.8 kg for air-set)	

## Optional Specifications

Item	Specifications			
<b>(1) Suppression and elevation</b>	(unit: mmH <sub>2</sub> O)			
	Model No.	Span	Suppression(max.)	Elevation (max.)
	KDP11	2,500-50,000	50,000	47,500
	KDP22	250-5,500	5,500	5,250
(note: elevation + span ≤ maximum span, suppression ≤ maximum span)				
<b>(2) Air-set (filter and pressure regulator)</b>	Primary pressure:		2-9.9 kgf/cm <sup>2</sup>	
	Secondary pressure:		1.4 kgf/cm <sup>2</sup>	
	Filter mesh diameter:		5 microns	
	Connections:		Rc ¼ or ¼ NPT internal thread	

## Model Number Table

Ex: KDP22-2222A1-5.7

Basic Model No.	Cover Mat'l		Wetted Parts Mat'l		Air Piping Connection	Pneumatic Signal. Gauge Scale Unit	Options	Description
	HP	LP	HP	LP				
KDP 11								0-2,500 to 0-50,000 mmH <sub>2</sub> O
KDP 22								0-250 to 0-5,500 mmH <sub>2</sub> O
	-1							Carbon steel (SF45A)
	-2							SUS316
	-3							MONEL
	-5							PVC
		1						Carbon steel (SF45A)
		2						SUS316
		3						MONEL
		5						PVC
			2					SUS316 (diaphragm: SUS316L)
			3					MONEL
			4					Tantalum
			8					SUS316L
				2				SUS316 (diaphragm: SUS316L)
				3				MONEL
				4				Tantalum
				8				SUS316L
					A			Rc ¼ internal thread
					B			¼ NPT internal thread
						1		0.2-1.0 kgf/cm <sup>2</sup>
						2		3-15 PSI
							-X	No option
							-5	Elevation
							-6	Suppression
							-7	Air-set

# Dimensions

(Unit: mm)

