

## PREX3000 VECTOR INVOLUTE TYPE PNEUMATIC DIFFERENTIAL PRESSURE TRANSMITTERS



### MODEL: KDP 33 (STANDARD TYPE FOR LOW 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)	0-50 to 0-600 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	±0.5% FS (for spans 0-100 to 0-600 mmH <sub>2</sub> O) ±1.0% FS (for spans 0-50 to 0-less than 100 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	Up to 35 kgf/cm <sup>2</sup> 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 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 +10 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. 14.6 kg (add 0.8 kg for air-set)	

### Optional Specifications

Item	Specifications		
<b>(1) Suppression and elevation</b>	(unit: mmH <sub>2</sub> O)		
	Span	Suppression(max.)	Elevation (max.)
	50-600	600	550
	(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: KDP33-2222A1-5.7

Basic Model No.	Cover Mat'l		Wetted Parts Mat'l		Air Piping Connection	Pneumatic Signal. Gauge	Options	Description
	HP	LP	HP	LP				
<b>KDP 33</b>								0-50 to 0-600 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)

