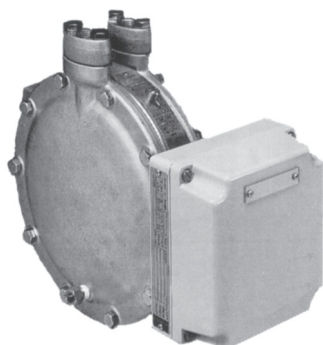


# PREX 3000 Vector Involute Type Pneumatic Differential Pressure Transmitters

## Model KDP 44

(Standard Type for Lowest Differential Pressure)



### Introduction

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	
<b>Measuring range (continuously adjustable)</b>	0-0.1 to 0-1.2 kPa {0-10 to 0-120 mmH <sub>2</sub> O}	
<b>Process connection</b>	Rc 1/2 or 1/2 NPT internal thread	
<b>Air supply connection</b>	Rc 1/4 or 1/4 NPT internal thread	
<b>Air supply pressure</b>	140 kPa {1.4±0.14 kgf/cm <sup>2</sup> }	
<b>Output</b>	20-100 kPa {0.2-1.0 kgf/cm <sup>2</sup> }	
<b>External load</b>	ID 4 mm × Length 3 m+20 cm <sup>3</sup> or over	
<b>Air supply capacity</b>	20Nℓ/minute or over, with 6.7 kPa {50 mmHg} change	
<b>Air consumption</b>	5Nℓ/minute or less (when balanced at output 100%)	
<b>Accuracy</b>	±0.5% FS (for spans 0-0.2 to 0-1.2 kPa {0-20 to 0-120 mmH <sub>2</sub> O}) ±1.0% FS (for spans 0-0.1 to 0-Less than 0.2 kPa {0-10 to 0-Less than 20 mmH <sub>2</sub> O})	
<b>Dead band</b>	0.1% FS	
<b>Damping adjustment</b>	Time constant: Minimum 2 sec. or less, Maximum 15 sec. or over	
<b>Working pressure</b>	-1.5 to +500 kPa {-0.015 to +5 kgf/cm <sup>2</sup> }	[Refer to Fig. 1]
<b>Operating temperature</b>	Meter body (process fluid): -40 to +120°C Transmitter (ambient): -30 to +80°C	[Refer to Fig. 1]
<b>Operating humidity</b>	10 to 90% RH	
<b>Overload protection</b>	Up to 0.5 MPa {5 kgf/cm <sup>2</sup> } in either direction	
<b>Construction</b>	Dustproof and waterproof, meets IEC IP54, NEMA Type 3R, JIS F8001 Class 3 splashproof, JIS C0920 rainproof	
<b>Materials</b>	Center body: Aluminium alloy Wetted parts of center body: SUS316 Meter body cover (differential pressure chambers): Carbon steel (SF45A), SUS316 Wetted parts gasket: Teflon Transmitter case: Aluminium alloy	
<b>Finish</b>	Acryl baking finish Color: Light beige (munsell 4Y7.2/1.3)	
<b>Mounting</b>	On vertical 2-inch pipe	
<b>Net weight</b>	Approx. 17.5 kg (add 0.8 kg for air-set)	

## Optional Specifications

Item	Specifications		
<b>(1) Suppression and elevation</b>	(unit: kPa {mmH <sub>2</sub> O})		
	Span	Suppression (max.)	Elevation (max.)
	0.1 to 1.2 {10-120}	1.2 {120}	1.1 {110}
(note: elevation+span ≤ maximum span, suppression ≤ maximum span)			
<b>(2) Air-set (filter and pressure regulator)</b>	Primary pressure:	200 to 990 kPa {2-9.9 kgf/cm <sup>2</sup> }	
	Secondary pressure:	140 kPa {1.4 kgf/cm <sup>2</sup> }	
	Filter mesh diameter:	5 microns	
	Connections:	Rc 1/4 or 1/4 NPT internal thread	

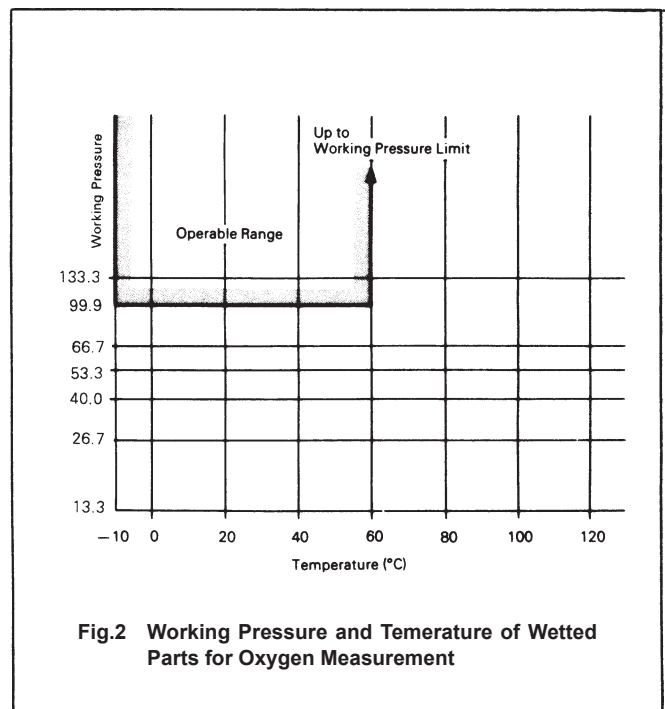
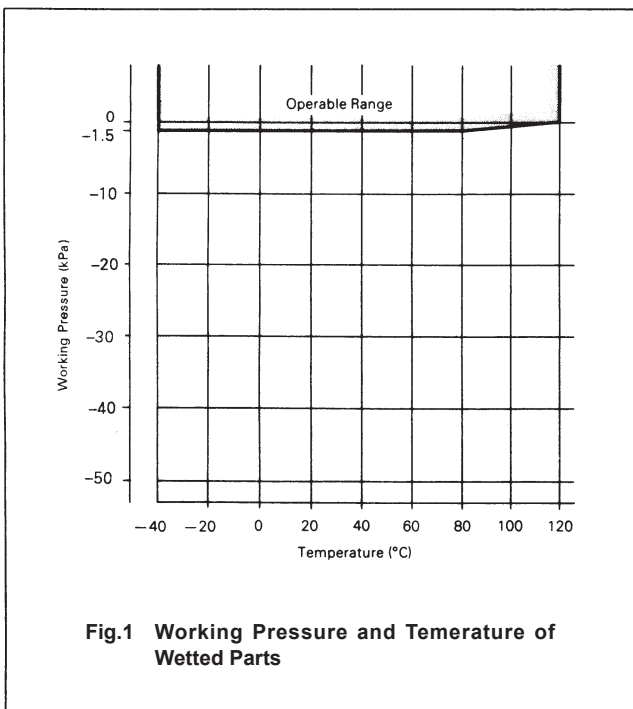
## Optional Semi-standard Specifications

Item	Specifications
<b>(1) SUS304 bolts for meter body clamping (Y 66)</b>	Operating pressure: Same as the standard specifications
<b>(2) Corrosion-resistant and silver finish (Y 138)</b>	Corrosion resistant (acryl baking) finish (Y138A): Resistant against corrosive gases.
	Corrosionproof (epoxy baking) finish (Y138B): Resistant against corrosive liquids.
	Silver-normal (acryl baking) finish (Y138C): To prevent temperature rise of instrument caused by direct sunlight or radiation from other source of heat.
	Silver-corrosion-resistant (acryl baking) finish (Y138D): To prevent temperature rise the same as above, plus resistance against corrosive gases.
	(note: silver finish is not applicable for alkaline gases.)
<b>(3) For oxygen measurement (Y182)</b>	Measuring element: SUS316 Liquid fill: Fluorine oil (specific gravity: 1.915 at 25°C) Operating temperature (fluid and ambient temperature): -10 to +60°C Wet parts treatment: Treated for degreasing
<b>(4) Output pressure gauge (Y185)</b>	Pressure gauge (100 mm diameter)
	
<b>(5) High vibration resistant type (Y188)</b>	High vibration resistant type with dashpot

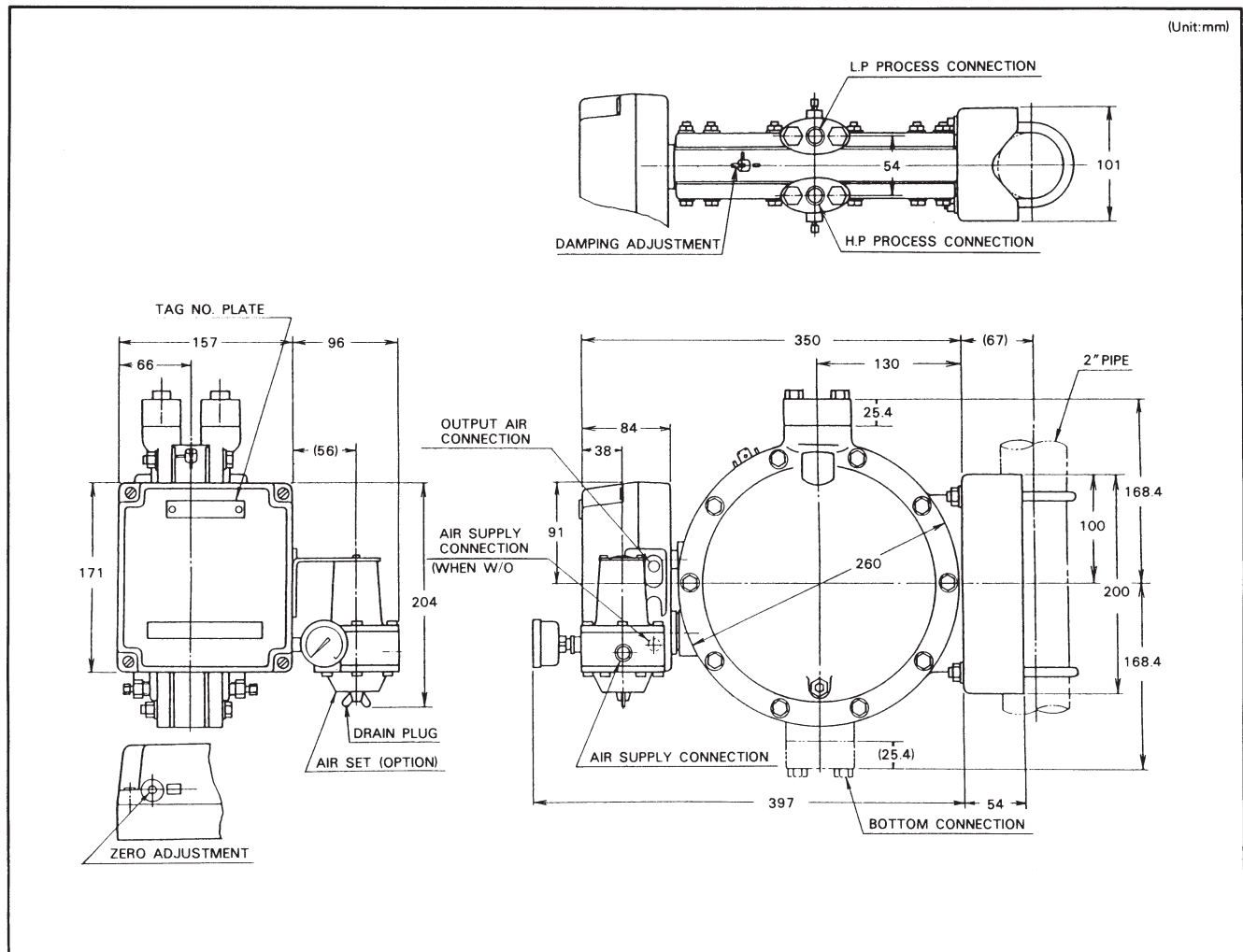
**Model Number Table**

Ex: KDP44-2222A1-5.7

Base Model No.	Cover Mat'l		Wetted Parts Mat'l		Air Piping Connections	Pressure unit / Output	Options	Description
	HP	LP	HP	LP				
KDP 44								0-0.1 to 0-1.2 kPa (0-10 to 0-120 mmH <sub>2</sub> O)
	-1							Carbon steel (SF45A)
	-2							SUS316
			1					Carbon steel (SF45A)
			2					SUS316
				2				SUS316
					2			SUS316
					A			Rc 1/4 internal thread
					B			1/4 NPT internal therad
						1		kgf/cm <sup>2</sup> (or mmH <sub>2</sub> O) / 0.2 to 1.0 kgf/cm <sup>2</sup>
						2		PSI / 3 to 15 PSI
						3		bar / 0.2 to 1.0 bar
						4		Pa / 20 to 100 kPa
						8		Pa / 19.6 to 98.1 kPa (equality to 0.2 to 1.0 kgf/cm <sup>2</sup> )
						- x	No option	
						-5	Elevation	
						-6	Suppression	
						-7	Air-set	



## Dimensions



### Ordering Information

When ordering, please specify:

- 1) Model No.
- 2) Measuring range

Note) PREX3000 Transmitter covers a wide measuring range. At a span close to the minimum range point, however, the instrument exhibits particular characteristics.

- 3) Optional specification
- 4) Optional semi-standard specification

Note) For any combination of two or more Y-specification items, please consult an Azbil Corp. agent.

Please, read 'Terms and Conditions' from following URL before the order and use.

<http://www.azbil.com/products/bi/order.html>

Specifications are subject to change without notice.

**azbil**

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