



PREX3000 VECTOR INVOLUTE TYPE PNEUMATIC DIFFERENTIAL PRESSURE TRANSMITTERS

MODEL: KKP 71/72/73/74/75/76 (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)	KKP 71: 0-50 to 0-700 kgf/cm ²												
	KKP 72: 0-12.5 to 0-250 kgf/cm ²												
	KKP 73: 0-3.5 to 0-70 kgf/cm ²												
	KKP 74: 0-1.75 to 0-35 kgf/cm ²												
	KKP 75: 0-0.35 to 0-7 kgf/cm ²												
	KKP 76: 0-0.1 to 0-2 kgf/cm ²												
Working pressure, Overload protection (refer to Fig.1)	Model No.	Working pressure range (up to 120 °C)				Overload protection							
						Up to 120°C				Normal temperature			
	KKP71	-1 to +700								750			
	KKP72	-1 to +300								320			
	KKP73	-1 to +105								140			
	KKP74	-1 to +52.5 (2" – ANSI wafer)								70			
		-1 to +51 (JIS 30K flange)								51			
KKP75	-0.5 to +10.5				37				50				
KKP76	-0.5 to +3								14				
Process connection	Connection	Screw con.			Flange connection								
		Model No.	G 1½ (φ34 button diaphragm)	2" (RF) Wafer	Flush diaphragm type				Extended diaphragm type				
	80mm- JIS 10K				80mm- JIS 30K	3"-ANSI 150	3"-ANSI 300	100mm- JIS 10K	100mm- JIS 30K	4"-ANSI 150	4"-ANSI 300		
	KKP71	○											
	KKP72	○	○										
	KKP73		○										
	KKP74		○		○			○		○		○	
KKP75				○			○	○	○	○	○		
KKP76				○			○	○	○	○	○		
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 × 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	Model No.	KKP71		KKP72		KKP73		KKP74		KKP75		KKP76	
	Span (kgf/cm ²)	50 to less than 100	100 or over	12.5 to less than 25	25 or over	3.5 to less than 7	7 or over	1.75 to less than 3.5	3.5 or over	0.35 to less than 0.7	0.7 or over	0.1 to less than 0.2	0.2 or over
	Accuracy (%FS)	±1	±0.5	±1	±0.5	±1	±0.5	±1	±0.5	±1	±0.5	±1	±0.5
	Dead band (%FS)	0.1		0.1		0.1		0.1		0.1		0.1	
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 protecti	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	Flange:	Carbon steel (SF45A), SUS304											
	Wetted parts:	SUS316 (diaphragm: SUS316L), SUS316L, MONEL, Tantalum											
	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. 12.5kg with 80 mm – JIS 10K flange (add 0.8 kg for air-set)												

Optional Specifications

Item	Specifications						
	Model No.	Span	Suppression (max.)	Spring A	Spring B	Working Pressure (max.) (up to 120°C)	
Elevation (max.)				High Elevation			
(1) Suppression and elevation	KKP71	50-700	-1	650	-	700	
	KKP72	12.5-250		225	225-287.5	300	
	KKP73	3.5-70		60	60-101.5	105	
	KKP74	2"-ANSI Wafer	1.75-35	-1	30	30-50.75	52.5
		80,100 mm- JIS 30K				30-49.25	51
		3", 4"-ANSI 300				30-35.25	37
	KKP75	0.35-7	-0.5	6	6-10.15	10.5	
	KKP76	0.1-2		1.8	1.8-2.9	3	
(note: elevation + span \leq maximum operating pressure)							
(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. KKP72-22010200A1-5.7

Basic Model No.	Flange or Screw Mat'l	Wetted Parts Mat'l	Flange or Screw Rating	Capillary Tube Length	Length of Extended Part of Flange	Air Piping Connection	Pneumatic Signal. Gauge Scale Unit	Options	Description
KKP71									0-50 to 0-700 kgf/cm ²
KKP72									0-12.5 to 0-250 kgf/cm ²
KKP73									0-3.5 to 0-70 kgf/cm ²
KKP74									0-1.75 to 0-35 kgf/cm ²
KKP75									0-0.35 to 0-7 kgf/cm ²
KKP76									0-0.1 to 0-2 kgf/cm ²
	-1								Carbon steel (SF45A) (excluding button diaphragm and wafer type)
	-2								SUS316 (excluding button diaphragm and flange type)
	-7								SUS304 (excluding wafer type)
	-8								SUS316L (excluding button diaphragm and
		2							SUS316 (diaphragm: SUS316L)
		3							MONEL
		4							Tantalum
		8							SUS316L
			01						Flush diaphragm type 80mm- JIS 10K (RF) equiv. Flange
			02						Flush diaphragm type 80mm- JIS 30K (RF) equiv. Flange
			03						Flush diaphragm type 3" – ANSI 150 (RF) equiv. Flange
			04						Flush diaphragm type 3" – ANSI 300 (RF) equiv. Flange
			05						Flush diaphragm type 100mm- JIS 10K (RF) equiv. Flange
			06						Flush diaphragm type 100mm- JIS 10K (RF) equiv. Flange
			07						Flush diaphragm type 4" – ANSI 150 (RF) equiv. Flange
			08						Flush diaphragm type 4" – ANSI 300 (RF) equiv. Flange
			09						2" – ANSI 1500 (RF) equiv. Wafer
			11						G 1½ external thread (button diaphragm type)
				02					ℓ = 2 m
				03					ℓ = 3 m
				05					ℓ = 5 m
					00				Available for flush diaphragm, button diaphragm and wafer 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
								-X	No option
								-5	Elevation
								-6	Suppression
								-7	Air-set

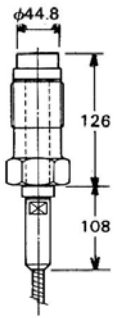
Dimensions

(Unit: mm)

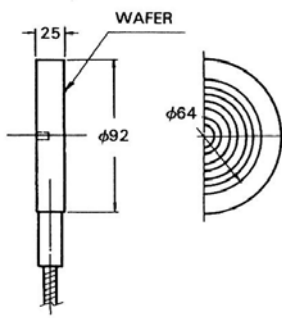
Flange Dimensions

ITEM	FLANGE RATING		D	T	C	n	h	i BOLT
01	80 mm JIS 10 K RF		185	18	150	8	19	M16
02	80 mm JIS 30 K RF		210	28	170	8	23	M20
03, 0A	3"	ANSI/	150 RF	191	24	152.4	4	5/8
04, 0B		JPI	300 RF	210	29	168.3	8	22
05	100 mm JIS 10 K RF		210	18	175	8	19	M16
06	100 mm JIS 30 K RF		240	32	195	8	25	M22
07, 0C	4"	ANSI/	150 RF	229	24	190.5	8	19
08, 0D		JPI	300 RF	254	32	200	8	22

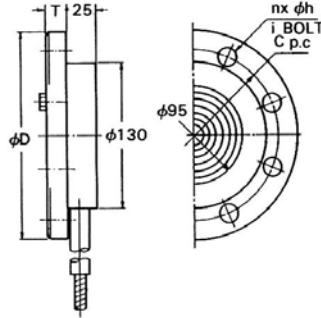
Button Diaphragm



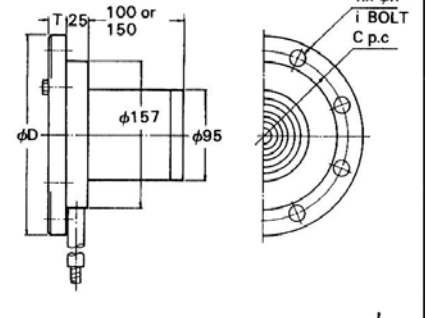
Wafer



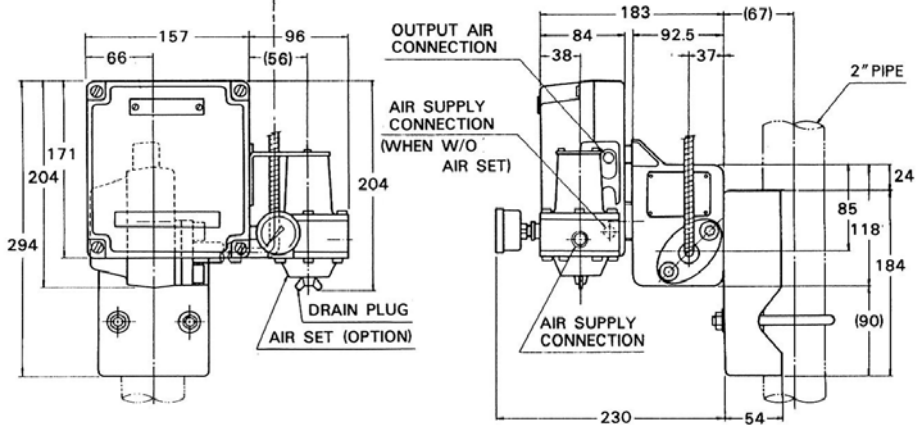
Flush Diaphragm



Extended Diaphragm



KKP71/72/73/74



KKP75/76

