



PREX3000 VECTOR INVOLUTE TYPE PNEUMATIC DIFFERENTIAL PRESSURE TRANSMITTERS

MODEL: KDP 44 (STANDARD TYPE FOR LOWEST 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) | 0-10 to 0-120 mmH ₂ 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 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 | ±0.5% FS (for spans 0-20 to 0-120 mmH ₂ O) ±1.0% FS (for spans 0-10 to 0-less than 20 mmH ₂ O) | |
| Dead band | 0.1% FS | |
| Damping adjustment | Time constant: Minimum 2 sec. or less, Maximum 15 sec. or over | |
| Working pressure | -150 to +5 kgf/cm ² (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 5 kgf/cm ² in either direction | |
| Construction | Dustproof and waterproof, meets IEC IP54, NEMA Type 3R, JIS F8001 Class 3 splashproof, JIS C0920 rainproof | |
| Materials | 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 |
| Finish | Acryl baking finish Color: Light beige (MUNSELL 4Y 7.2 / 1.3) | |
| Mounting | On vertical 2-inch pipe. | |
| Net weight | Approx. 17.5 kg (add 0.8 kg for air-set) | |

Optional Specifications

| Item | Specifications | | |
|---|---|-------------------------------|------------------|
| (1) Suppression and elevation | (unit: mmH ₂ O) | | |
| | Span | Suppression(max.) | Elevation (max.) |
| | 10-120 | 120 | 110 |
| | (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: KDP33-2222A1-5.7

| 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 44 | | | | | | | | 0-10 to 0-120 mmH ₂ O |
| | -1 | | | | | | | Carbon steel (SF45A) |
| | -2 | | | | | | | SUS316 |
| | | 1 | | | | | | Carbon steel (SF45A) |
| | | 2 | | | | | | SUS316 |
| | | | 2 | | | | | SUS316 (diaphragm: SUS316L) |
| | | | | 2 | | | | SUS316 (diaphragm: SUS316L) |
| | | | | | 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)

