

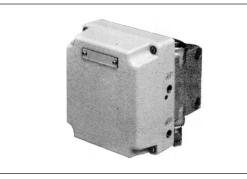
# Pneumatic Pressure Transmitters (Absolute Pressure)

Model KKP25/26/27/28

#### **Overview**

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Model KKP is a pneumatic transmitter which employs a combination of a vector balance mechanism and an involute mechanism. Its wide variety of features include high resistance against adverse environments, high turn-down ratio, and easy maintenance.



### **Standard Specifications**

|  | ltem                |  | Specifications      |  |  |  |  |
|--|---------------------|--|---------------------|--|--|--|--|
|  | Basic model No.     |  |                     |  |  |  |  |
| Measuring                                | 3                   | 0–35 to 0–686 kPa  |                     |  |  |  |  |
| range (cor<br>tinuously<br>variable)     |                     | 0–10 to 0–196 kPa  |                     |  |  |  |  |
|  | KKP27               | 0–3.4 to 0–66.6 kPa  |                     |  |  |  |  |
|  | KKP28               | 0–0.7 to 0–13.3 kPa  |                     |  |  |  |  |
| Operating pressure                       |                     | Operating pressure   | Overload resistance |  |  |  |  |
|  | KKP25               | 0–686 kPa abs  | 1.4 MPa abs         |  |  |  |  |
|  | KKP26               | 0–196 kPa abs  | 0.6 MPa abs         |  |  |  |  |
|  | ККР27               | 0–66.6 kPa abs   | 0.4 MPa abs         |  |  |  |  |
|  | KKP28               | 0–13.3 kPa abs   | 0.4 MPa abs         |  |  |  |  |
| Process connection                       |                     | Rc 1/2 or 1/4 and 1/2 or 1/4 NPT female thread   |                     |  |  |  |  |
| Air supply connection                    |                     | Rc 1/4 or 1/4 NPT female thread  |                     |  |  |  |  |
| Supply air pressure                      |                     | 140 ±14 kPa  |                     |  |  |  |  |
| Output                                   |                     | 20 to 100 kPa (see the model number selection for other outputs)   |                     |  |  |  |  |
| External lo                              | bad                 | I.D. 4 mm × Length 3 m + 20 cm <sup>3</sup> or more  |                     |  |  |  |  |
| Air supply                               | r capacity          | 20 L/min (normal) or more at 6.7 kPa   |                     |  |  |  |  |
| Air consur                               | mption              | 5 L/min (normal) or less (when balanced at 100 % output)   |                     |  |  |  |  |
| Accuracy                                 | KKP25               | ±1 % FS (span 35 to less than 70 kPa abs), ±0.5 % FS (span 70 kPa abs or more)   |                     |  |  |  |  |
|  | KKP26               | ±1 % FS (span 10 to less than 20 kPa abs), ±0.5 % FS (span 20 kPa abs or more)   |                     |  |  |  |  |
|  | KKP27               | ±1 % FS (span 3.4 to less than 6.8 kPa abs), ±0.5 % FS (span 6.8 kPa abs or more)  |                     |  |  |  |  |
|  | ККР28               | $\pm 1$ % FS (span 0.7 to less than 1.4 kPa abs), $\pm 0.5$ % FS (span 1.4 to less than 9.8 kPa abs), $\pm 0.75$ % FS (span 9.8 kPa abs or more) |                     |  |  |  |  |
| Deadbanc                                 | d                   | 0.1 % FS   |                     |  |  |  |  |
| Operating                                | temperature         | Meter body (process fluid): -40 to +120 °C<br>Transmitter (ambient): -30 to +80 °C   |                     |  |  |  |  |
| Operating humidity                       |                     | 10 to 90 % RH  |                     |  |  |  |  |
| Structure Dust-proof and water-<br>proof |                     | Satisfies IEC IP54, NEMA TYPE 3R, JIS C0920 rainproof  |                     |  |  |  |  |
| Material                                 | Bellows             | SUS316L  |                     |  |  |  |  |
|  | Wetted parts gasket | PTFE   |                     |  |  |  |  |
|  | Wetted parts        | Carbon steel (SF440A) or SUS316  |                     |  |  |  |  |
| Finish                                   |                     | Baked acrylic finish. Color: light beige (Munsell 4Y7.2/1.3)   |                     |  |  |  |  |

#### No. SS2-KKP250-0100

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| Item     |                     | Specifications   |  |  |  |  |
|----------|---------------------|--|--|--|--|--|
|          | Basic model No.     |  |  |  |  |  |
| Material | Bellows             | SUS316L  |  |  |  |  |
|          | Wetted parts gasket | PTFE   |  |  |  |  |
|          | Wetted parts        | Carbon steel (SF440A) or SUS316  |  |  |  |  |
|          | Transmitter case    | Aluminum alloy   |  |  |  |  |
| Finish   |                     | Baked acrylic finish. Color: light beige (Munsell 4Y7.2/1.3)                     |  |  |  |  |
| Mounting |                     | On vertical or horizontal 2-inch pipe  |  |  |  |  |
| Mass     |                     | Approx. 9 kg (+ 0.6 kg for model with Pressure Regulator with air filter (RA1B)) |  |  |  |  |

#### **Additional specifications**

| Item                   |                      | Specifications                  |                  |  |  |  |
|------------------------|----------------------|---------------------------------|------------------|--|--|--|
|                        | Basic model No.      | Span                            | Elevation (max.) |  |  |  |
| Elevation*             | KKP25                | 35 to 686 kPa                   | 653 kPa abs      |  |  |  |
|                        | KKP26                | 10 to 196 kPa                   | 186 kPa abs      |  |  |  |
|                        | KKP27                | 3.4 to 66.6 kPa                 | 63.2 kPa abs     |  |  |  |
|                        | KKP28                | 0.7 to 13.3 kPa                 | 12.6 kPa abs     |  |  |  |
| Pressure Regulator     | Primary pressure     | 200 to 1035 kPa                 |                  |  |  |  |
| with air filter (RA1B) | Secondary pressure   | 140 kPa                         |                  |  |  |  |
|                        | Filter mesh diameter | 5 µm                            |                  |  |  |  |
|                        | Connection           | Rc 1/4 or 1/4 NPT female thread |                  |  |  |  |

\* *Elevation* + *Span*  $\leq$  *Maximum operating pressure* 

# **Optional Specifications**

| ltem                                  |      | Specifications  |   |  |  |  |
|---------------------------------------|------|---|---|--|--|--|
| Degreasing                            | Y67  | Wetted parts  |   |  |  |  |
| Corrosion-resistant and silver finish | Y138 | Corrosion-resistant (baked acrylic)<br>finish (Y138A)     | Resistance against corrosive gases  |  |  |  |
|                                       |      | Heavy corrosion-resistant (baked epoxy) finish (Y138B)    | Resistance against corrosive liquids  |  |  |  |
|                                       |      | Silver-normal (baked acrylic) finish<br>(Y138C)           | Prevention of device temperature rise due to direct sunlight, radiant heat, etc.    |  |  |  |
|                                       |      | Silver-corrosion-resistant (baked acrylic) finish (Y138D) | Prevention of temperature rise as described above and resistance to corrosive gases |  |  |  |
|                                       |      | Note: Silver finish should not be use                     | ed in alkaline gases.   |  |  |  |
| Output indicator                      | Y185 | With $\phi 100$ gauge                                     |   |  |  |  |
| High vibration resistance             | Y188 | High vibration-resistance model with a dashpot            |   |  |  |  |

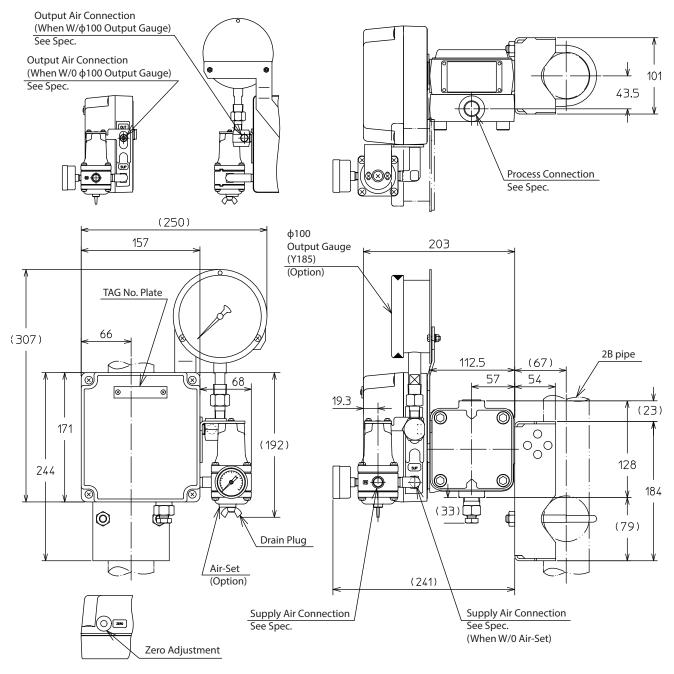
## **Model Selection Table**

|                   |   | Basic model No. |       | Optional spec. |   |   |   |     | Add'l sp |
|-------------------|---|-----------------|-------|----------------|---|---|---|-----|----------|
|                   |   |                 | ] - [ |                |   |   |   | ] – |          |
|                   |   |                 |       |                |   |   |   |     |          |
| Measuring span    | 0-35 to 0-686   | KKP25           |       |                |   |   |   |     |          |
| (kPa)             | 0–10 to 0–196   | KKP26           |       |                |   |   |   |     |          |
|                   | 0-3.4 to 0-66.6   | KKP27           |       |                |   |   |   |     |          |
|                   | 0-0.7 to 0-13.3   | KKP28           |       |                |   |   |   |     |          |
|                   |   | ·               | _     |                |   |   |   |     |          |
| Cover material/   | SF440A/SUS316L  |                 |       |                |   | ] |   |     |          |
| element material  | SUS316/SUS316L  |                 |       | 2              | 8 | ] |   |     |          |
| Air supply con-   | Rc 1/4 female thread  |                 |       |                |   | A | ] |     |          |
| nection           | 1/4 NPT female thread   |                 |       |                |   | В |   |     |          |
| Signal air pres-  | kgf/cm <sup>2</sup> : 0.2 to 1.0 kgf/cm <sup>2 *1</sup>             |                 |       |                |   |   | 1 | 1   |          |
| sure              | psi: 3 to 15 psi*1  |                 |       |                |   |   | 2 | ]   |          |
|                   | bar: 0.2 to 1.0 bar*1   |                 |       |                |   |   | 3 | 1   |          |
|                   | Pa: 20 to 100 kPa   |                 |       |                |   |   | 4 | 1   |          |
|                   | Pa: 19.6 to 98.1 kPa (0.2 to 1.0 kgf/cm <sup>2</sup> or equivalent) |                 |       |                |   |   | 8 |     |          |
|                   |   |                 |       |                |   |   |   | -   |          |
| Additional speci- | None  |                 |       |                |   |   |   |     | X        |
| fications         | Elevation   |                 |       |                |   |   |   |     | 5        |
|                   | Pressure Regulator with air filter (RA1B)                           |                 |       |                |   |   |   |     | R        |

\*1. Non-SI units can only be used overseas.

#### Model KKP25/26/27/28

unit: mm



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Specifications are subject to change without notice.

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