Hitachi Differential Pressure/Pressure Transmitter Series is based on our accumulated technology and is available in many types. This instrument is expected to be used in various fields.

### Lineup

<table>
<thead>
<tr>
<th>Application</th>
<th>Model</th>
<th>Product Name</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement of flow rate</td>
<td>EPR-N / EDR-N</td>
<td>Differential pressure transmitter</td>
<td></td>
</tr>
<tr>
<td>Measurement of flow rate</td>
<td>EPR-NT / EDR-NT</td>
<td>Differential pressure transmitter, high working pressure</td>
<td></td>
</tr>
<tr>
<td>Measurement of flow rate</td>
<td>EPR-NTS / EDR-NTS</td>
<td>Differential pressure with temperature/pressure compensation</td>
<td></td>
</tr>
<tr>
<td>Measurement of pressure</td>
<td>EPR-N / EDR-N</td>
<td>Differential pressure transmitter, remote-sealed diaphragm</td>
<td></td>
</tr>
<tr>
<td>Measurement of pressure</td>
<td>EPR-NP / EDR-NP</td>
<td>Pressure transmitter, remote-sealed diaphragm</td>
<td></td>
</tr>
<tr>
<td>Measurement of absolute pressure</td>
<td>EPR-N / EDR-N</td>
<td>Absolute pressure transmitter</td>
<td></td>
</tr>
<tr>
<td>Measurement of absolute pressure</td>
<td>EPR-NH / EDR-NH</td>
<td>Absolute pressure transmitter, high working pressure</td>
<td></td>
</tr>
<tr>
<td>Measurement of absolute pressure</td>
<td>EPR-NTS / EDR-NTS</td>
<td>Differential pressure with remote-sealed diaphragm</td>
<td></td>
</tr>
<tr>
<td>Measurement of absolute pressure</td>
<td>EPR-NTP / EDR-NTP</td>
<td>Differential pressure transmitter, high working pressure</td>
<td></td>
</tr>
<tr>
<td>Measurement of zero point</td>
<td>EPR-N / EDR-N</td>
<td>Zero point adjustment, remote-sealed diaphragm</td>
<td></td>
</tr>
<tr>
<td>Measurement of absolute pressure</td>
<td>EPR-N / EDR-N</td>
<td>Absolute pressure transmitter, remote-sealed diaphragm</td>
<td></td>
</tr>
<tr>
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<td>EPR-N / EDR-N</td>
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### Features

- **External zero point adjustment**
  - Free from through-hole
  - Non-contact magnet type (lead relay)

- **Switchable differential pressure lead-in direction**
  - The differential pressure lead-in direction is settable through the DCR type communicator (H/L, L/H)

- **Construction without flange**
  - The welded construction prevents liquid leakage, thus ensuring high reliability.

- **Multi-variable function**
  - The built-in static pressure sensor allows simultaneous measurement of pressure, besides differential pressure with a single transmitter and display/output of result data.

- **Excellent environmental resistance**
  - Higher resonance frequencies realized through central axis alignment (continuous vibration: up to 29.4 m/s²)

- **Flexible wiring**
  - Wiring can be provided from either side.

### Provided with density compensation function

Models provided with the density compensation function including temperature/pressure compensation, which is convenient for vapor or gas measurement, are also available. They provide high performance in various processes.

### Standard-equipped with burnout function

If an error occurs in a sensor, A/D, EEPROM or constant among self-diagnosis information, the output signal can be scaled out upward or downward (only with intelligent type).

### Highly reliable absolute pressure gauge

Hitachi Absolute Pressure Transmitters ensure reliability and long-term stability through a unique construction of the sensor, thus earning an excellent reputation in various plants.

### High-temperature, high-vacuum specifications based on unique construction

The high-temperature, high-vacuum specifications of the differential pressure/pressure transmitter fully cover 310°C, 13.3 Pa abs. (0.1 Torr) through a unique construction, thus realizing stable measurement at high temperature and under high vacuum.

### HART communication

HART communication function can also be chosen instead of the communication function equipped standardly for the check or change of the setting information on a transmitter.

**In addition to the above, there are many features available.**
Transmitters for Special Purposes

High-temperture, high-vacuum specifications based on unique construction

The high-temperature, high-vacuum specifications of the differential pressure/pressure transmitter fully cover 310°C, 10 Pa abs., 9.5 (1.3) Torr through a unique liquid-containment construction, thus realizing stable measurement at high temperature and under high vacuum.

〈Unique method of manufacturing〉
- Adoption of high-purity filled liquid
- Adoption of high-temperature dry cleaning method
- Adoption of high-temperature, high-purity filled liquid method
- Adoption of high-temperature, high-purity capsule

Working pressure and process fluid temperature

Construction of wetted part

Highly reliable absolute pressure transmitter

Hitachi Absolute Pressure Transmitters adopt an E type sensor and uniquely constructed capsule to ensure durability when an excessive pressure is applied. They realize excellent reliability and long-term stability, thus enjoying a good reputation in various plants.

〈Realization of high reliability〉
If an excessive pressure is applied, the sensor unit is pressurized and brought into contact with the mounting base to prevent damage to the sensor unit.

〈Long-term stability〉
For the absolute pressure transmitter, it is important to make the vacuum reference chamber more stable. In Hitachi Absolute Pressure Transmitters, the semiconductor sensor is coupled with the mounting base at high temperatures and under high vacuum by using special techniques. This coupling system allows you to obtain a dry, clean and stable vacuum reference chamber. Accordingly, the vacuum reference chamber is maintained under high vacuum at any time to realize stable absolute pressure measurement with a minimum of drift in various plants.

Sanitary type

A sanitary type transmitter which allows IDF Fermite connection is available for various measurements in food processes. The transmitter contributes to the lightning of washing work. (Propylene glycol is also selectable for filled liquid.)

Cover Flange type

In measurement of the differential pressure (flow rate), vigorous pulsation may occur in process fluid in the vicinity of the discharge port of the pump. Then, a flange type transmitter curbs the influence of pulsation to realize stable measurement. It is suitable for a power plant.

Analog type transmitter

The analog type transmitter features smooth response characteristics and is provided with a function that compensates for the influence of static pressure to realize accurate measurement. The transmitter is suitable for an atomic power plant because it is excellent in radiation resistance.

Gold-plated diaphragm

A gold-plated diaphragm, which prevents hydrogen permeation effectively, is optionally available. Plating process is applied only to the inside (filled liquid side) of the transmitter. Accordingly, there is no danger of the gilt coming off and mixing in process fluid.

Differential pressure transmitter with temperature/pressure compensation function

A temperature/pressure compensation function, which is convenient for measurement of vapor or gas is built in the transmitter. Utilizing this function reduces the total cost as well as the equipment cost.

Replacement kit

The transmitter is being downsized from year to year. So a deviation in pipe connection position will occur when upgrading the older type transmitter already installed. Kit for eliminating the deviation are prepared to reduce the construction cost in upgrading.

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For measurement of the flow rate in a manufacturing process, a reducer is attached to the flange section of the transmitter to enable direct connection of the process pipe.

**Features**
- Easily installed
- Adaptable to various applications (corrosive fluid, high temperature, high vacuum, etc.)
- Maintenance work including “elimination of clogging” lightened

### Reduction in total cost

**Lead pipe-free type differential pressure transmitter**

For pressure measurement of kPa order in a manufacturing process, the flanges on the high and low-pressure sides of the differential pressure transmitter with remote-sealed diaphragm are coupled to enable measurement of the range which cannot be measured with a pressure transmitter.

**Features**
- Flange on low-pressure side out of the way
- Influence of temperature change minimized owing to capillary tubes on high and low-pressure sides in same environment

### Pressure measurement in low range with high accuracy (±0.2%)
Notice: For proper operation, follow the instruction manual when using the instrument.
Specifications in this catalog are subject to change with or without notice, as Hitachi High-Tech Solutions Corporation continues to develop the latest technologies and products for our customers.
HART® is a registered trademark of the HART Communication Foundation.

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