

DP5 SERIES DPH SERIES

Related Information

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- Sensor selection guide P.661~
- Glossary of terms..... P.1373~
- General precautions P.1405



High speed response of 1/1,000 sec.

High speed response 1 ms

Mounting the detachable head close to the detecting section minimizes piping and enables response time of 1 ms, as well as greatly decreasing tact time delay. In addition, the ultra-small and light-weight design of the head means it can easily be mounted on moving sections.

Independent use of sensor head possible

Data can be controlled by taking the analog voltage output (1 to 5 V) from the sensor head and feeding it to a digital panel meter.

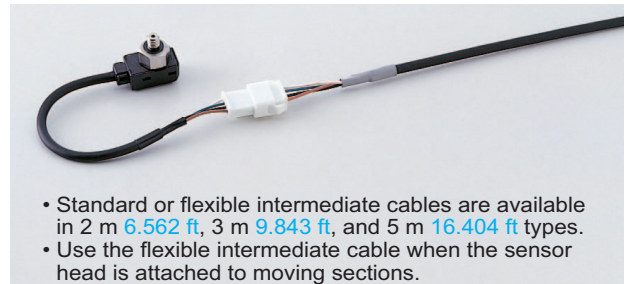
Sensor head with operation indicator

The sensor head is also equipped with operation indicator. Output ON / OFF can be checked on the sensor head, so that it is suitable for checking operation at the suction head. (Linked to Comparative Output 1)



Convenient intermediate cable with connector

Intermediate cable with connector for connecting the sensor head and the controller makes operation and maintenance easier.



- Standard or flexible intermediate cables are available in 2 m **6.562 ft**, 3 m **9.843 ft**, and 5 m **16.404 ft** types.
- Use the flexible intermediate cable when the sensor head is attached to moving sections.

A total of 10 head variations

A total of 10 head variations to meet all production demands.



Vacuum pressure type (0 to -101.3 kPa)

- M5 male thread
- R (PT) 1/8 male thread / M5 female thread
- NPT 1/8 male thread / 10-32UNF female thread
- 10-32UNF male thread

Positive pressure type (0 to 1.000 MPa)

- M5 female thread
- R (PT) 1/8 male thread / M5 female thread
- NPT 1/8 male thread / 10-32UNF female thread

Compound pressure type (-100.0 to 100.0 kPa)

- M5 female thread
- R (PT) 1/8 male thread / M5 female thread
- NPT 1/8 male thread / 10-32UNF female thread

FIBER SENSORS

LASER SENSORS

PHOTOELECTRIC SENSORS

MICRO PHOTOELECTRIC SENSORS

AREA SENSORS

LIGHT CURTAINS

PRESSURE / FLOW SENSORS

INDUCTIVE PROXIMITY SENSORS

PARTICULAR USE SENSORS

SENSOR OPTIONS

SIMPLE WIRE-SAVING UNITS

WIRE-SAVING SYSTEMS

MEASUREMENT SENSORS

STATIC CONTROL DEVICES

ENDOSCOPE

LASER MARKERS

PLC / TERMINALS

HUMAN MACHINE INTERFACES

ENERGY CONSUMPTION VISUALIZATION COMPONENTS

FA COMPONENTS

MACHINE VISION SYSTEMS

UV CURING SYSTEMS

Selection Guide

Pressure/ Digital Display

Pressure/ Head-separated

Flow

Other Products

DPC-L100/ DPH-L100

DPS-400/ DPH-100

DPC-100/ DPH-100

DP5/DPH

BASIC PERFORMANCE

Globally usable

Two types of output, NPN and PNP, are available to allow use of the sensors anywhere in the world. The sensor, of course, conforms to the CE marking EMC Directive. Further, it has obtained UL Recognition.



MOUNTING / SIZE

Easy mounting, mobile pressure port

The head's pressure port can be rotated independently (free-turning) of the sensor head. In addition to being easy to mount, the cable can be laid in any direction.



Light-weight, compact design

The controller was designed to be light-weight and compact. Control panel setup is low cost and requires minimal space.

Supplied with a panel mounting bracket

A panel mounting bracket (**MS-DP-1**) is enclosed to enable simple mounting of the controller onto the panel surface, thus contributing to the total cost reduction. Since the panel thickness can be from 1 to 6 mm **0.039 to 0.236 in**, the controller can even be mounted on thick, resin-made panels. The attached panel mounting bracket enables vertical installation.



FUNCTIONS

User friendly two-color digital display

The user friendly two-color digital display changes color when output changes (ON / OFF), making it easy to check operation status at a glance. The display color can be linked to Comparative Output 1 or Comparative Output 2.

Two independent outputs plus analog voltage output

In addition to two independent outputs (ON / OFF), analog voltage output (1 to 5 V) is also available. The different outputs allow you to create solutions for a wide variety of applications.

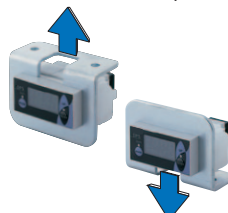
OPTIONS

2 types of sensor mounting brackets are available

Using the vertical mounting bracket (**MS-DP-3**) and the horizontal mounting bracket (**MS-DP-4**), the devices can be installed in the space inside machines or boxes.

MS-DP-3 for vertical orientation mounting

Installed oriented upwards



Installed oriented downwards

MS-DP-4 for horizontal orientation mounting

Installed oriented to the left



Installed oriented to the right

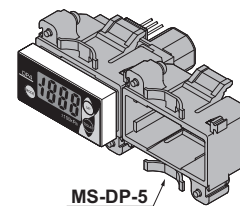
DIN rail mounting bracket is available

The controller can be mounted even on a 35 mm **1.378 in** width DIN rail by using the optional DIN rail mounting bracket (**MS-DP-2**). It can be fitted even in a narrow space inside your equipment because it can be mounted from four directions.



Made for horizontal panel mounting

Using the horizontal multiple panel mounting bracket, the **MS-DP-5** (optional), direct panel surface horizontal mounting is rendered possible. For installation, the panel thickness must be from 1 to 6 mm **0.039 to 0.236 in**.



Two operation indicators

There are two operation indicators that light respectively when Comparative Output 1 or Comparative Output 2 is ON. They are convenient for intensive operation checks.



Lights up in conjunction with comparative output 1

Lights up in conjunction with comparative output 2

Sensor head auto-recognition

The head's auto-recognition function means you don't have to manually set the head type at the controller, saving you valuable time.

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DPS-400/DPH-400

DPC-100/DPH-100

DP5/DPH

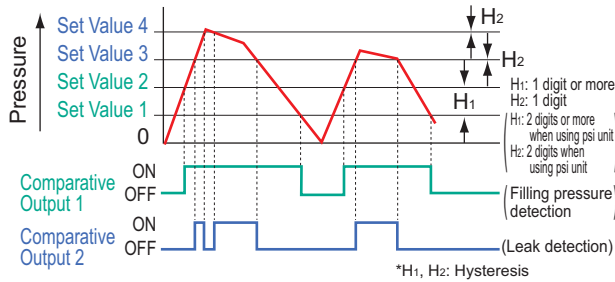
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FUNCTIONS

Able to handle a wide variety of applications through its four output modes

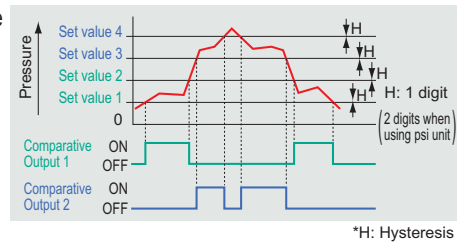
Leak test mode

It is suitable for a leak test since Comparative Output 1 can be set to the hysteresis mode and Comparative Output 2 can be set to the window comparator mode. Using it along with the external input function the auto-reference / remote zero-adjustment functions ensures a reliable leak test.



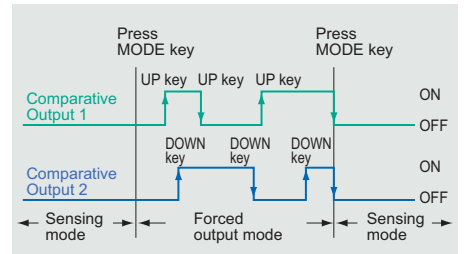
Window comparator mode

The comparative output can be turned ON or OFF by a pressure which is within the set pressure range.



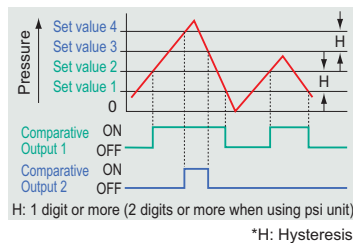
Forced output mode

The comparative outputs are forcibly maintained at OFF level in the sensing mode, irrespective of the set values. Hence, it is convenient for only displaying the pressure value without using the comparative outputs. Further, since the comparative outputs can be forcibly switched ON or OFF with key operation, without actually applying pressure, this mode is suitable for an operation check or a start-up check.



Hysteresis mode

The hysteresis of the comparative outputs can be set arbitrarily by the set values for ON / OFF control.

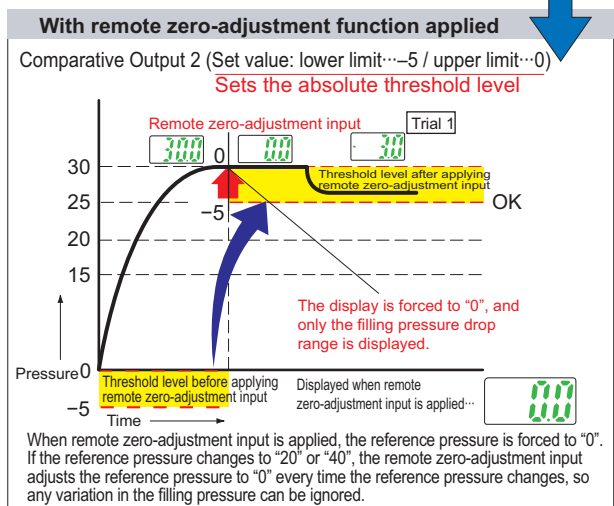
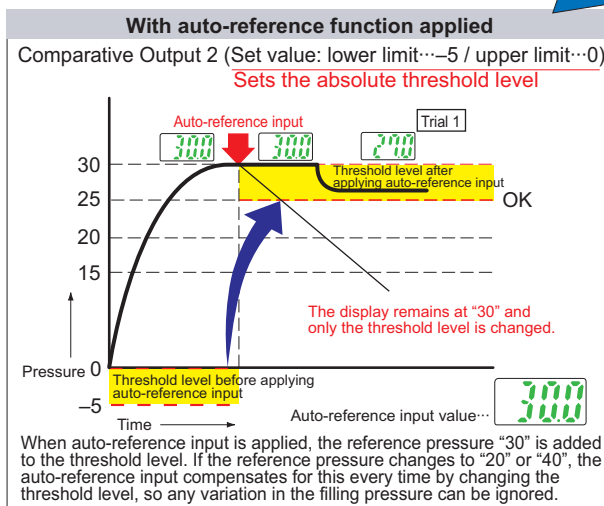
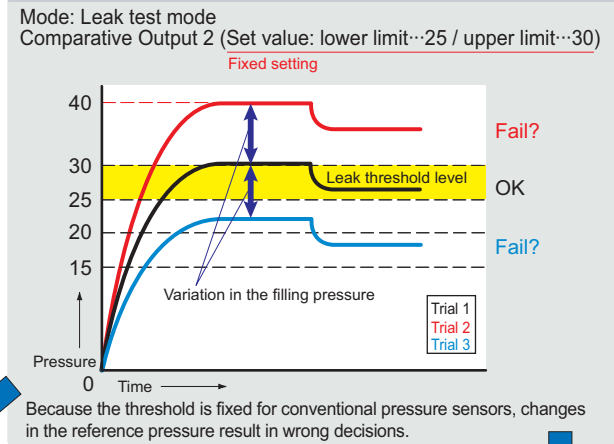


Equipped with external input function (auto-reference and remote zero-adjustment functions)

If the reference pressure of the equipment changes, the auto-reference function can compensate the threshold levels by the amount of change and the remote zero-adjustment function can reset the display value to zero via external input. These functions are ideal for places where the reference pressure fluctuates wildly, or where fine settings are desired. The external input functions can be selected with the supplementary setting mode using key operations.

Example: When leak test mode is applied, Comparative Output 1 detects the filling pressure and Comparative Output 2 detects the leakage.

Without auto-reference and remote zero-adjustment functions



- DPC-L100/DPH-L100
- DPS-400/DPH-100
- DPC-100/DPH-100
- DP5/DPH**