

Direct current power unit

HWS15A

HWS15A



RoHS

Direct current power unit

This instrument is used to drive a fine differential pressure sensor or fine differential pressure transmitter with 12 to 24 V DC power specification.



HWS15A

Product code

HWS15A-24/A

- ◆When making an inquiry or placing an order, specify the above product code.
- ◆The DC power device HWS15A is a product manufactured by TDK-Lambda Corporation.

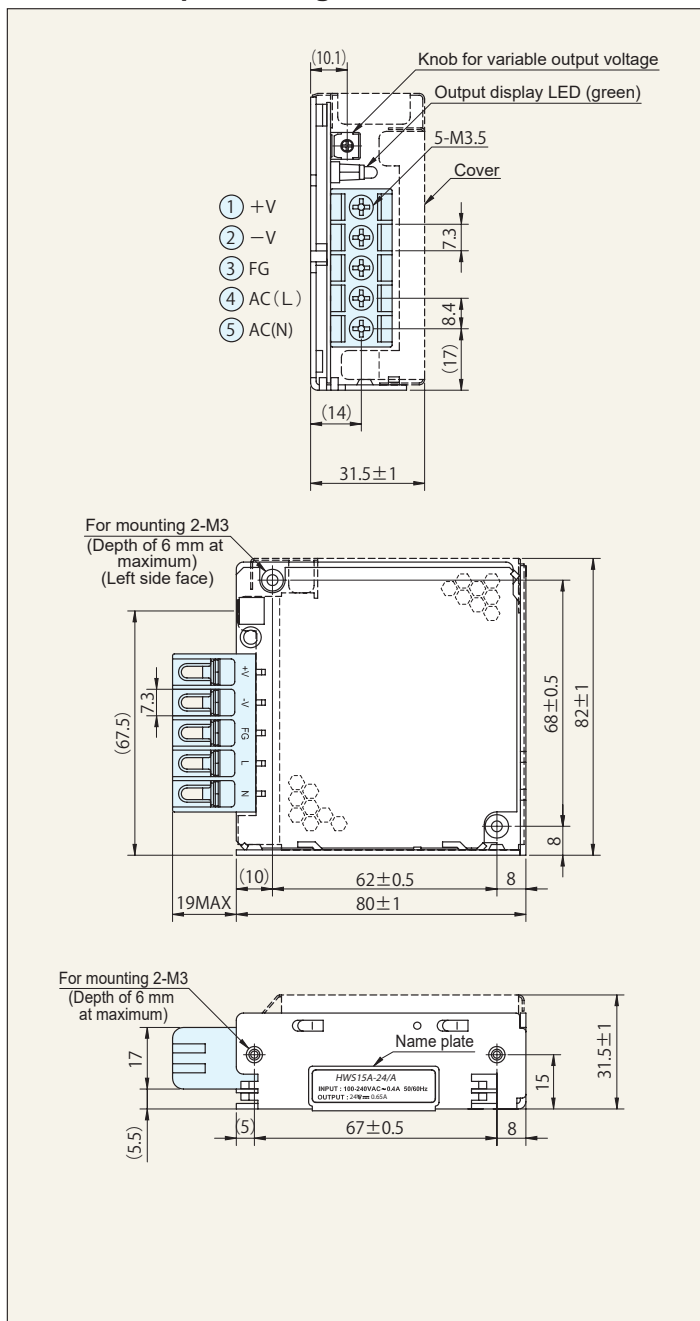
- List of products
- WO81
- WO71
- FR51A
- MS99
- MS99S
- MS61A-RA
- QDP33
- EMD8A
- EMD7
- EMT1
- EMTGP1
- EMT1H
- EMT6
- EMP5A
- EMRT1
- HWS15A**
- Accessories
- Application
- Precautions
- Maintenance

Specifications

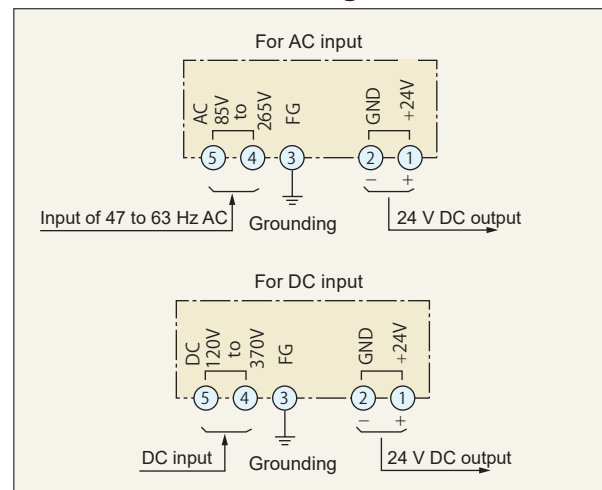
Model	HWS15A-24/A
Input voltage	85 to 265 V AC (47 to 63 Hz) or 120 to 370 V DC
Output voltage	24 V DC
Maximum output current	0.65 A
Output variation at operating ambient temperature	0.02%/°C or lower
Overcurrent protection	0.68 A and higher
Operating ambient temperature	-10°C to +70°C (-10°C to +50°C: 100%, +60°C: 80%, +70°C: 60%)
Operating ambient humidity	30% to 90% RH (no condensation allowed)
Withstand voltage	Between input and FG: 2 kV AC (20 mA), between input and output: 3 kV AC (20 mA) Between output and FG: 500 V AC (100 mA), each for one minute
Insulation resistance	100 MΩ or higher (between output and FG: 500 V DC, 25°C, 70% RH)
Mass	Approx. 210 g

◆For use environment, refer to page 118.

External shape drawing

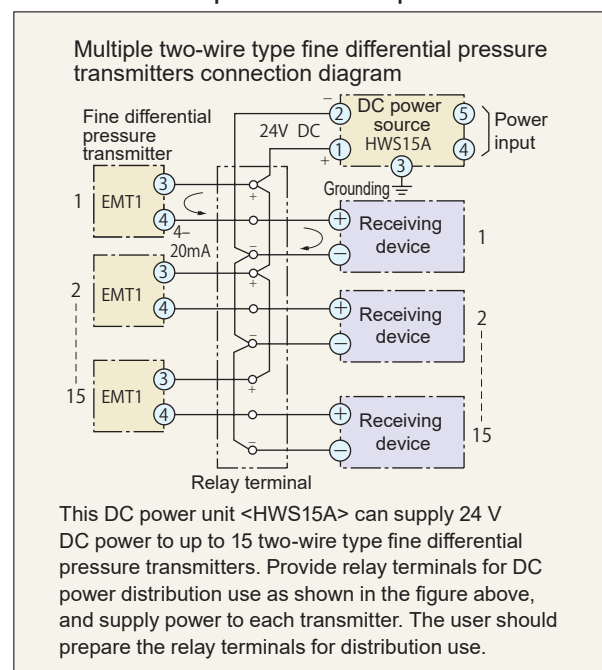


Terminal connection diagram



Caution Terminal screw tightening torque: 1.6 N·m
Do not tighten to a torque that exceeds the specified value because doing so breaks the instrument body.

When there are multiple fine differential pressure transmitters



This DC power unit <HWS15A> can supply 24 V DC power to up to 15 two-wire type fine differential pressure transmitters. Provide relay terminals for DC power distribution use as shown in the figure above, and supply power to each transmitter. The user should prepare the relay terminals for distribution use.

Combination

Combination with fine differential pressure transmitter

List of products

WO81

WO71

FR51A

MS99

MS99S

MS61A-RA

QDP33

EMD8A

EMD7

EMT1

EMTGP1

EMT1H

EMT6

EMP5A

EMRT1

HWS15A









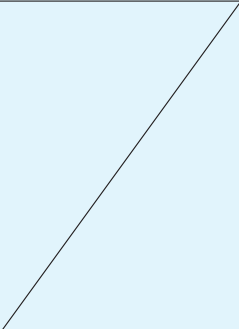
Accessories

Application

Precautions

Maintenance

When you use a fine differential pressure transmitter in combination with a displaying instrument or other device, select them by referring to the combination table below.

Transmission method	Fine differential pressure transmitter	Relevant device		Displaying instrument
Two-wire type		Direct current power unit  HWS15A	Airflow rate measurement Square root calculator  EMRT1	Receiving instrument  EMP5A
	Intrinsically safe type EMT1H  Intrinsically safe circuit  *Installation at hazardous locations	If a DC power circuit is not incorporated into the receiving device, use the device in combination with this power unit.	For airflow rate measurement, a square root calculation circuit is necessary. If a square root calculation circuit is not incorporated into the receiving device, use the device in combination with this calculator.	The receiving instrument EMP5A is incorporated with a DC power circuit and a square root calculation circuit. Adjustment meter 
Four-wire type				*We do not handle adjustment meters.

- ◆⊖: Represents power voltage of 100 V AC 50/60 Hz. (For the power voltage input range, refer to the page describing each product.)
- ◆Be sure to combine our receiving instrument with a fine differential pressure transmitter with the same pressure range as that on the nameplate attached to the body of the receiving instrument.
- ◆Please be advised that if a failure occurs because of the combination of our product with a device from another manufacturer, we shall assume no responsibility. Therefore, pay due attention to the functions and circuits of the device.
- ◆When installing a device as an intrinsically safe device, pay attention to hazardous and non-hazardous locations. (Refer to page 87)
- ◆When you use these products for airflow rate/airflow speed measurements, we need to obtain the specifications of the pressure detection side. Fill out the airflow rate/airflow speed specification document preparation sheet on page 15, and inform us of the data.

Warranty

Warranty period

The warranty period for our product is one (1) year from delivery to the location specified by the orderer who makes a direct transaction with us.

Scope of warranty

If any failure or defect attributable to us becomes clear during the above warranty period, we will repair the product or supply a substitute product free of charge. However, even during the warranty period, we will exclude the product from the scope of the warranty if the failure or defect corresponds to any of the following:

- (1) The failure or defect was caused by an unreasonable condition, environment, handling, or usage not mentioned in the instruction manual, specifications, and our product catalog.
- (2) The failure or defect was caused by a factor other than our product.
- (3) The failure or defect was caused by a modification or repair conducted by a party other than us.
- (4) The failure or defect was caused by an event that could not be foreseen at the scientific and technical levels at the time of product shipment from us.
- (5) The failure or defect was caused by an external factor not attributable to us, such as acts of God and disasters.

Please note that the warranty mentioned here means the warranty for our individual product, and damage provoked by a failure or defect of the product is excluded from the scope of the warranty.

*This warranty is valid only in Japan.

Application and usage

Our products are designed and manufactured as general-purpose instruments for general industries.

Therefore, our products are not intended for the following uses, and our products used in such a manner are outside the scope of application.

- (1) Equipment that is anticipated to greatly affect lives and properties, such as nuclear power generation, aviation, railways, marine vessels, vehicles, and medical devices
- (2) Utilities that include electricity, gas, and service water
- (3) Use in outdoor locations and under similar conditions or environments other than those stipulated in the instruction manual
- (4) Usage to which considerable safety consideration and attention equivalent to (1) and (2) above need to be given

Service

Scope of service

Because the product price does not include service expenses, such as the dispatch of engineers, we will separately charge for the expenses in the following cases:

- (1) Instruction for installation and adjustment and a witnessed test run
- (2) Maintenance inspection, adjustments, and repairs
- (3) Technical guidance and technical education
- (4) Witnessed inspections of products at our factory

<<Note>> The product specifications and information in this catalog are subject to change without prior notice for product improvement or other reasons.

● For order placement, contact

General agent  **Manostar Shop Co., Ltd.**

1-2-3 Nishishiriike-cho, Nagata-ku, Kobe City, Hyogo 653-0031
TEL. +81-78-621-7000 FAX. +81-78-621-7788

Manufacturer  **Yamamoto Electric Works Co., Ltd.**

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TEL. +81-78-631-6000 FAX. +81-78-631-6020