

Compressed Air  
**APPLICATION**

Golden Rules Co.,Ltd

[www.goldenrules.co.kr](http://www.goldenrules.co.kr)

For humidity reflecting air  
compressor mass flow meter



The nation's development item, 100% domestic goods, Patent **NO.** 10-1606497

# 1. For humidity reflecting air compressor mass flow meter

## KC-7730 Series



### ● Features :

#### FLOW TRANSMITTER

- Output : 4~20 mA, RS485, Pulse
- Flow rate, Total
- 4~20mA : kg/h, m3/h, MJ/h, Nm3/h
- Pulse : ton, m3, Nm3, MJ
- Time unit : second, minute, hour
- Density, Viscosity, Enthalpy, Compressibility
- Input power : DC 24V, AC 110~220V(Option )
- Accuracy :  $\pm 0.5\%$  RD
- Display : Digital 2-line LCD backlight
- Operation : IR Touch
- Anti explosion : KCs

### ● Application:

Mass flow measurement of water-containing lines of gases in industrial processes

Humidity-reflecting wet air flow rate measurement of air compressor

- Measurement principle: Absolute pressure and differential pressure sensor: single crystal silicon / metal sensor  
Temperature sensor : RTD Pt100 (3-wire) Temperature and Humidity Sensor: Installed a dedicated PTFE membrane to protect the sensor inlet against liquids and dust according to IP67

### ● Description:

The KC-7730 series is ideal for applications that measure the mass flow of gases, including moisture. Accurate measurement of mass flow and volume and the energy flow that controls them is critical. KC-7730 accurately measures the amount of pure gas and moisture by measuring the amount of moisture contained in the pure gas during the process and can be used in a wide range of flow management industries. In particular, it can help improve the specific power of the compressor by deriving the moisture content of the air compressor. The flow algorithm of KC-7730 has received NET (new technology certification) from the Korean government.

KC-773 applies a reliable mass flow measurement method that applies the expansion coefficient considering the density and the viscosity coefficient of the fluid considering the compression coefficient according to temperature and pressure.

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## KC-7730 Series



temperature and humidity mass flow meter

- Flow sensor calibration:

Temperature / differential pressure sensor / pressure sensor / differential pressure zero range / flow rate 8 points (contact us)

- Input power: Voltage :

DC 24V (Min. 6V to Max. 42V) / AC 85~220V (Option)

- Fluid property display:

Insulation index / density / viscosity coefficient / enthalpy / compression coefficient

- Temperature compensation and sensor accuracy:

Temperature constant  $\pm 0.02\%$  / 10K (%) of  $\pm$  span : < 0.05 % Humidity sensor: 0 to 100 % RH / long-term stability < 0.5% RT/year

- Unit setting:

Mass flow: kg/g/ton/lb Volume flow: m<sup>3</sup> / cc / l / gal / in<sup>3</sup> / ft<sup>3</sup> Normal volume flow: Nm<sup>3</sup> / Ncc / Nl / Ngal / Nin<sup>3</sup> / Nft<sup>3</sup> / Sm<sup>3</sup> / Scc / Sl / Sgal / Sin<sup>3</sup> / Sft<sup>3</sup> Energy flow: kJ / MJ / BTU Time : second(s) / minute(m) / hour(h) / day(d)

- Operating temperature conditions:

Ambient temperature for transmitter installation : - 40 to 60 °C Process temperature range: Max. 300°C

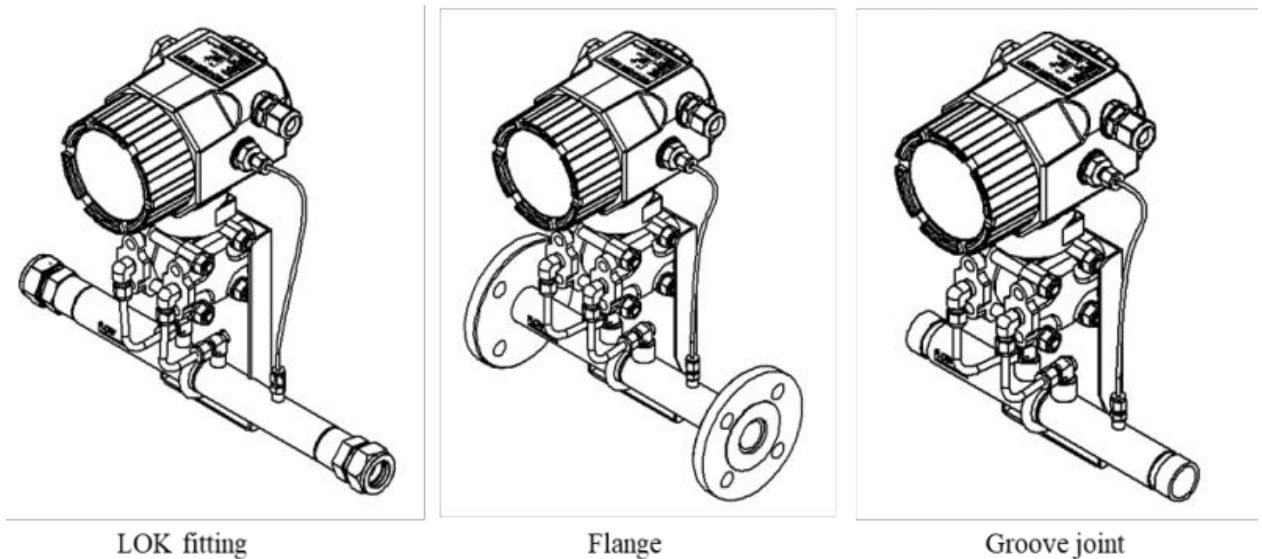
- Output signal:

Analog 4 to 20 mA DC Digital RS-485 (4 byte / 9600 to 115200 bps) Pulse

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## KC-7730 Series

### ● Flow Meter Connection



### ● Precautions for installation:

It is recommended to install the flowmeter in a horizontal position.

Perform zero set before operating the flowmeter.

Straight pipe length upstream of the flow meter: 10D or more of the pipe diameter (D)

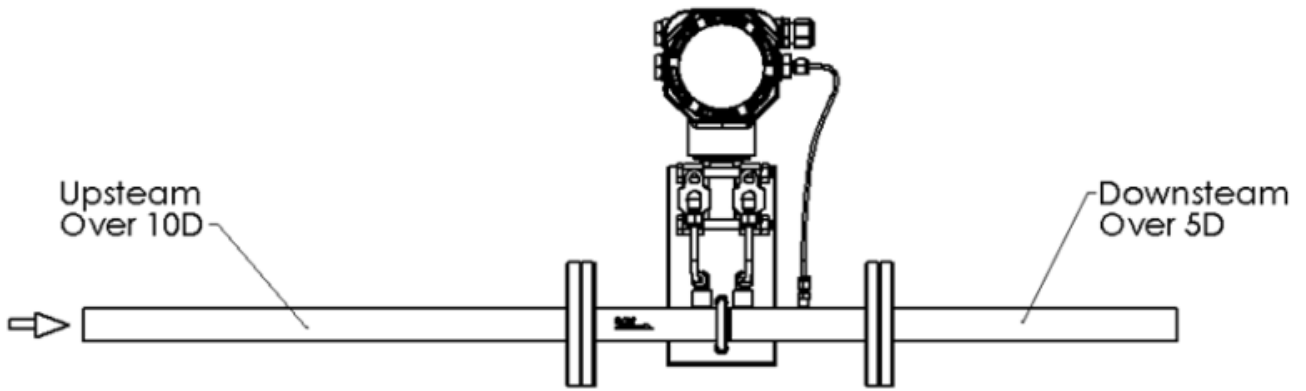
Straight pipe length at the rear end of the flow meter: 5D or more of the pipe diameter (D)

caution :

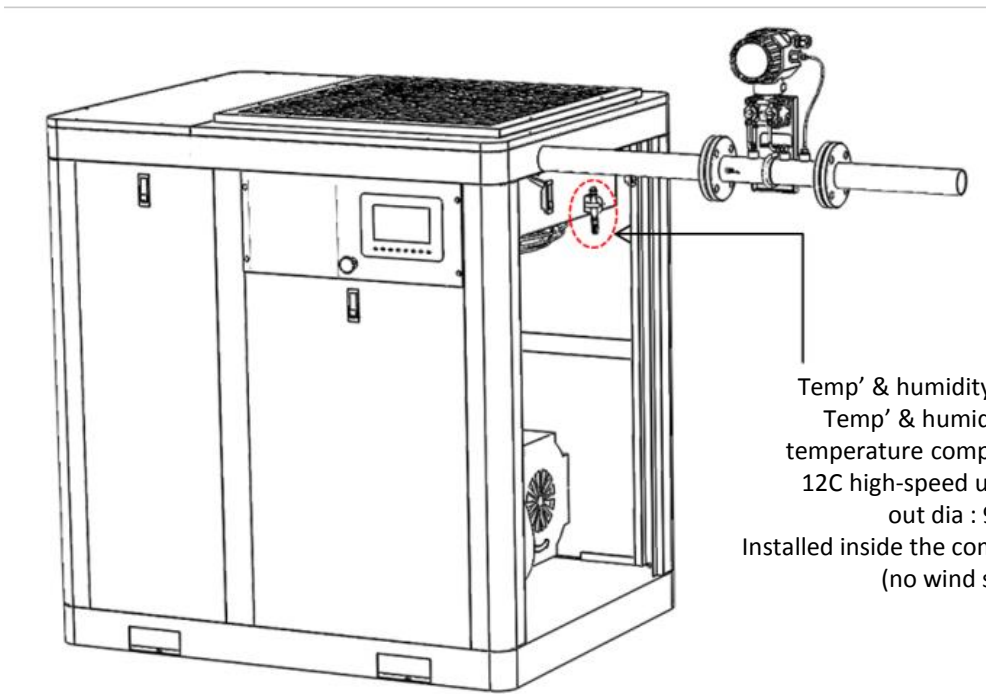
Do not install the valve within 10D of the flow meter. Install the control valve 5D after the flowmeter.

Install the temperature and humidity (RHT) sensor at atmospheric pressure.

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Mass Flowmeter :  
Sensor all in one : absolute pressure/  
d/p sensor/ temp' sensor  
Front screen : 2 line LCD with 4 button  
Flow direction : left to right (std.)  
Transmitter weight : about 5.2 kg  
Operation : Tact switch / IR remot control



Temp' & humidity transmitter :  
Temp' & humidity sensor :  
temperature compensated digital output  
12C high-speed up to 100kHz  
out dia : 9/16"  
Installed inside the compressor enclosure  
(no wind space)



**Golden Rules**

• GOLDEN RULES

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Gas, Steam, Liquid, Oil

**Mass Flowmeter**

Specialized manufacturer

**Distbuter**

Certified in accordance with

KC Q ISO 9001 : 2015

KC Q ISO 14001 : 2015

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