HPM310 Micro Differential Pressure Transmitter

Nanjing Hangjia Electronic Technology Co., Ltd.

Product Overview

HPM310 micro differential pressure transmitter selects high-precision, high-stability pressure sensitive chip, through the highly reliable amplification circuit, the pressure signal of the measured medium will be converted into 4～20mADC standard signal. High-quality sensors, exquisite packaging technology and perfect assembly process ensures the excellent quality and performance of the product.

The product is widely used in boiler air supply, fan pressure, air duct pressure, indoor ventilation, subway air pressure, subway ventilation, environmental air pressure pressure or differential pressure measurement.

Applications

- Duct Pressure
- Indoor extraction
- Underground ventilation
- Boiler air supply
- Differential Pressure Measurement

Features

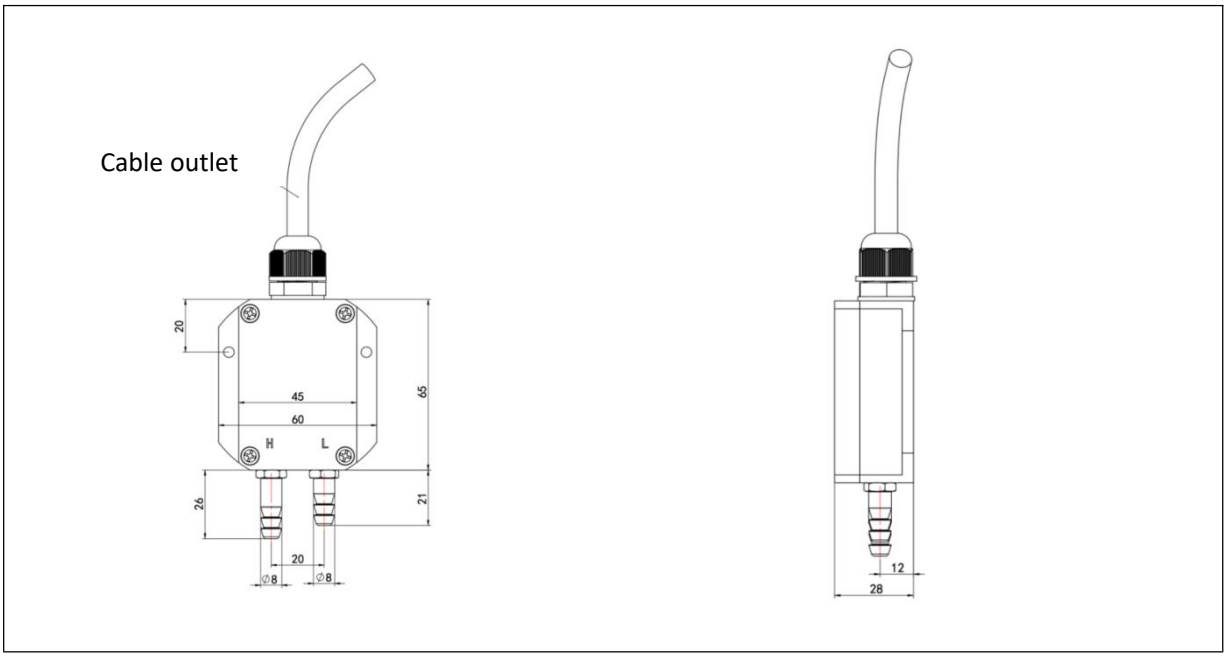
- Ø8 pagoda nozzle pressure connection for easy installation
- Measurement of small gas differential pressure
- 0.5 grade precision, small error
- Wide temperature zone compensation, small temperature drift
- Manual zero function

Technical Parameters

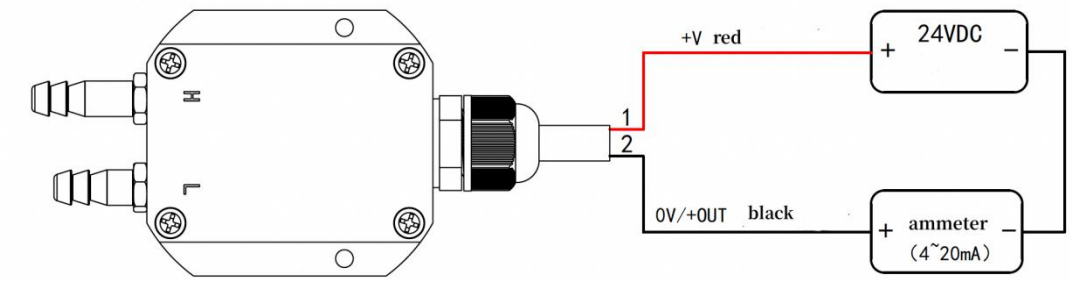
Pressure range	
Measuring range	0 ~ 100Pa, 0 ~ 200Pa, 0 ~ 500Pa, 0 ~ 1kPa, 0~2kPa, 0~5kPa, 0~10kPa, 0~40kPa，0 ~ 100kPa ±100Pa, ±200Pa, ±500Pa, ±1kPa, ±2kPa, ±5kPa, ±10kPa, ±40kPa, ±100kPa
Overload	3 ~ 5x of full scale range
Note: 1、Support negative pressure, composite pressure and other measurements 2、Support customized intermediate range	

Measuring medium	
Medium type	Dry and clear noncorrosive gas(cannot measure liquids)
Output Signal/Power supply	
Standard	4~20mA; 0 ~ 5V; 0 ~ 10V; RS485
Power supply	12~24V
Performance	
Accuracy	±1.0%FS @25℃ （100Pa≤pressure range<200Pa） ±0.5%FS @25℃ （200Pa≤pressure range<1kPa） ±0.25%FS @25℃ （1kPa≤ pressure range≤40kPa）
Response time	About 100ms
*Accuracy complies with IEC 60770 (non-linearity, hysteresis, repeatability)	
Temperature drift characteristics	
Compensation temperature range	-20 ~ 65℃
Temperature Coefficient of Zero	±1.0%FS reference 25℃， Within the temperature compensation range
Temperature Coefficient of Full Scale	±1.0%FS reference25℃， Within the temperature compensation range
Environment conditions	
Temperature range	Ambient temperature： -20 ~ 70℃ Medium temperature： -40 ~ 85℃ Storage temperature： -40 ~ 85℃
Protection grade	IP54
Insulation	
Insulation resistance	>20MΩ @500VDC
Dielectric strength	<2mA @ 500VAC (A test voltage of 500VAC 50Hz is applied, and there is no breakdown or arcing phenomenon for 1 minute.)

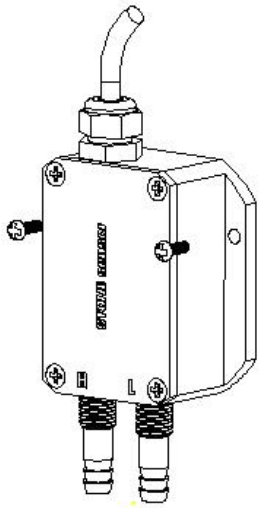
Structural Drawings



Electrical connection (Two-wire 4～20mA wiring diagram)



Installation Notes



1. This product can be directly installed on the wall or panel using threaded holes.
2. When installing in the open air, try to place the transmitter in a ventilated and dry place to avoid direct exposure to strong light and rain. Otherwise, the performance of the whole machine will be reduced and the life of the whole machine will be affected.
3. The lead-out cables should be protected. When used in industrial sites, it is recommended to use snakeskin pipes or iron pipes for protection, or to elevate them.

Ordering Guide

Model No.	Type						
HPM310	Micro differential pressure transmitter						
	Pressure range	Measuring range					
	(X_1 ~ X_2)kPa	Fill out X directly					
		Code	Output signal				
		B1	(4 ~ 20)mA				
		B3	0-10V				
		B4	0-5V				
		B7	RS485				
			Code	Pressure connection			
			T8	Φ8 Pagoda			
				Code	Electrical connection		
				C2	Cable outlet		
					Code	Sensor	
					X	MEMS chip	
						Code	Additional Functions
						J2.5	0.25% accuracy
						J5	0.5% accuracy
						J10	1.0% accuracy
e.g.HPM310	(0 ~ 2)kPa	B1	T8	C2	X	J5	