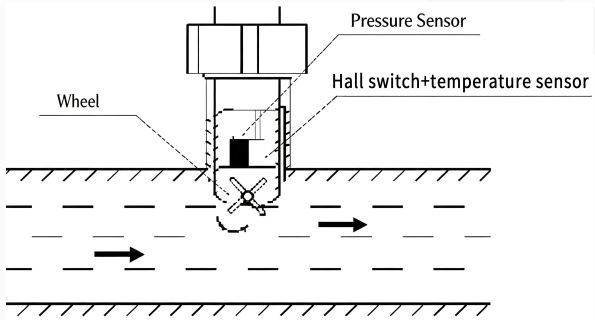
Please refer to page 4 for detailed selection

FTP10

Integrated Flow/Temperature/ Pressure Sensor

Product Description

The schematic diagram of the principle of the flow pressure temperature sensor is shown. The sensor probe is equipped with a pressure sensor, Hall switch, temperature sensor, and an impeller supported by bearings at the center of the pipeline. When the fluid passes through the pipeline, it impacts the impeller blades, causing the impeller to rotate. The rotational speed of the impeller is proportional to the fluid flow rate. The liquid flow drives the impeller to rotate, and the rotating impeller causes the induction Hall switch to generate a frequency signal proportional to the flow rate. The transmitter then converts the frequency signal into an electrical signal, and the pressure sensor outputs a pressure signal, while the temperature sensor outputs a temperature signal.



Scope of application

The integrated flow temperature pressure sensor is suitable for industries such as thermal heating, petrochemicals, power, water treatment, and light manufacturing. It can perform multi parameter online monitoring of gases, liquids, saturated and superheated steam in pipelines. Commonly used in heat exchange pipelines, process pipelines, and energy metering stations to collect real-time flow, temperature, and pressure data. The equipment only needs to be installed with a single opening, suitable for industrial automation control, energy consumption accounting, and working condition adjustment, and can meet the data collection needs of various pipeline process monitoring and system safety operation and maintenance.

Features

The flow temperature pressure integrated sensor adopts an integrated design, which can synchronously measure the three parameters of flow, temperature, and pressure in real time, eliminating the need for multiple instruments to be installed separately. Based on the principle of vortex street measurement, it has no mechanical moving parts, is wear-resistant, anti blocking, high stability, and low failure rate. The device has fast response speed, high measurement accuracy, good anti vibration and anti-interference capabilities, and supports standard signal output. The whole machine is made of stainless steel structure, resistant to high temperature and high pressure, and suitable for various media such as gas, liquid, and steam. Easy to install and require minimal maintenance, it can meet the needs of industrial automation measurement and control, energy consumption statistics, and pipeline safety monitoring.

✆ 400-860-9760

For more product information, please visit www.ludwig-schneider.com.cn

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Technical Parameters

Measurement range	Flow rate of 0.3~6m/s; Temperature 0~100 ° C; pressure 0~1MPa
accuracy	Traffic level 3; Temperature 1 ° C; pressure level 0.5
signal output	Three channel 4-20mA/RS485 output (optional)
Working Voltage	24VDC
insulation resistance	50MO at 100VDC
power consumption	3W
environmental conditions	-20~60°C,≤85RH

Flow rate flow comparison table

Flow rate m/S / Traffic m³/h / Pipe diameter mm	0.3	1	2	3	4	5	6
15	0.1909	0.6362	1.2723	1.9085	2.5447	3.1809	3.8172
20	0.3393	1.1310	2.2619	3.3929	4.5239	5.6549	6.7860
25	0.5301	1.7671	3.5243	5.3014	7.0686	8.8357	10.6026
40	1.3572	4.5239	9.0478	13.5717	18.0956	22.6159	27.1434
50	2.1206	7.0686	14.1732	21.2058	28.2743	35.3429	42.4116
65	3.5838	11.9459	23.8918	35.8377	47.7836	59.7295	71.6754
80	5.4287	18.0956	36.1911	54.2867	72.3823	90.4779	108.5736
100	8.4823	28.2743	56.5487	84.8230	113.0973	141.3717	169.6458
150	19.0852	63.6173	127.2345	190.8518	254.4690	318.0863	381.7038
200	33.9292	113.0973	226.1947	339.2920	452.3893	565.4867	678.5838
300	76.3407	254.4690	508.9380	763.4070	1017.8760	1272.3450	1526.8140
400	135.7168	452.3893	904.7787	1357.1680	1809.5574	2261.9467	2714.3358
500	212.0575	706.8583	1413.7167	2120.5750	2827.4334	3534.2917	4241.1498
600	3053.6281	1017.8760	2035.7520	3053.6281	4071.5041	5089.3801	6107.2560

Four types of traffic can be switched

Cubic meters per hour

Liters per hour

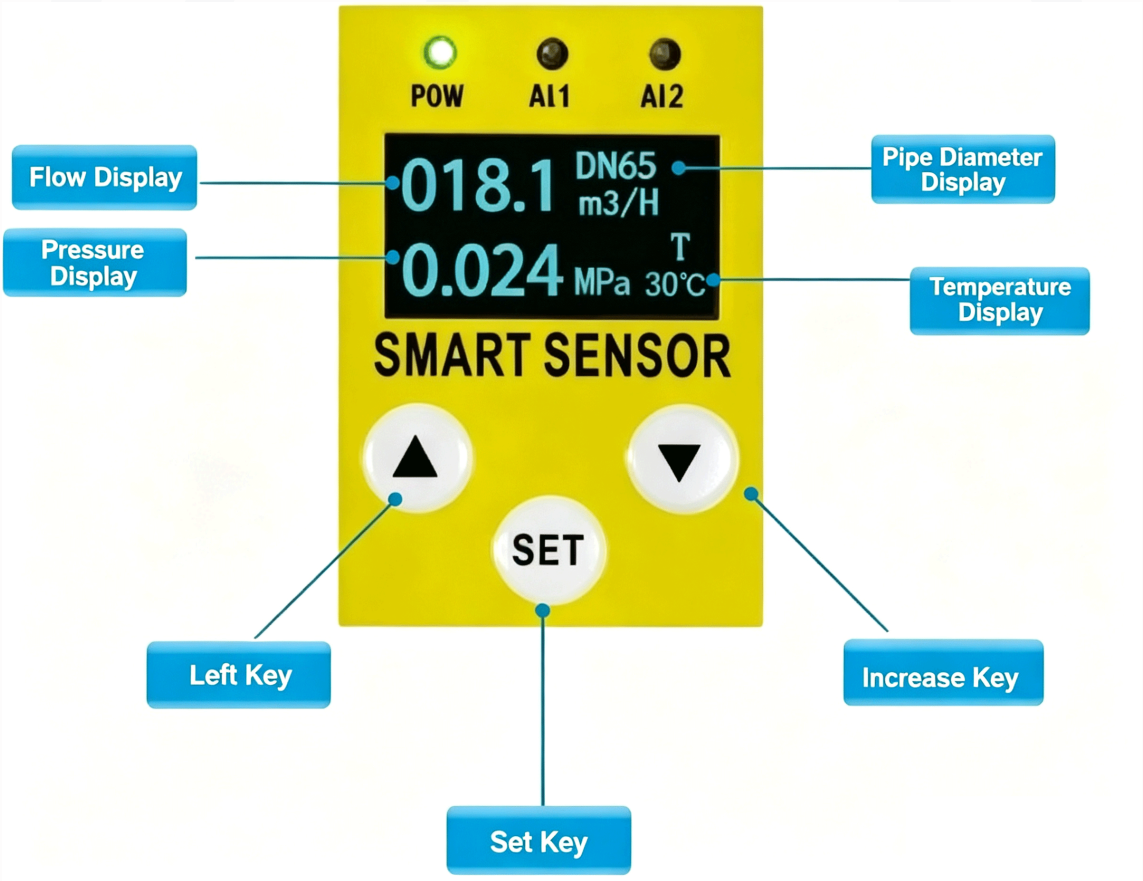
Liters per minute

Cubic meters per minute

Liters per second

Meters per second

Product dimensions



FTP10- Selection Composition

Example of Selection **FTP10**

A	I	D	N	Z	D	P	S	A	B	C	D
1	2	3	4	5	6	7	8	9	10	11	12

1. Instrument type	A	Digital display/flow/temperature/pressure integrated sensor	
	T( )	Other types	
2. Electrical interface	G	1/2NPT	
	H	3/4NPT	
	I	M20*1.5	
	J	M16*1.5	
	K	M12*1.5	
	T( )	Other electrical interfaces	
3. Output signal	D	4-20mA	
	F	0-10V	
	T( )	Other output signals	
4. Input signal	N	Pt100，B	
	O	Pt100，A	
	P	Pt1000，B	
	Q	Pt1000，A	
	R	K(NiCr-Ni)	
	S	E(NiCr-CuNi)	
	W	N(NiCrSi-NiSi)	
	U	J(Fe-CuNi)	
	V	J(T-CuNi)	
	T( )	Other measuring components	
5. Wire system	Z	2-wire system	
	W	3-wire system	
	S	4-wire system	
	T( )	Other wire systems	
6. Thread connection specifications	A	1/2NPT	
	B	3/4NPT	
	C	1/4NPT	
	D	G1/2	
	E	G3/4	
	F	G1/4	
	G	G1/8	
	H	G3/8	
	I	G1	
	J	M8×1.0	
	K	M10×1.0	

FTP10- Selection Composition

Example of Selection **FTP10**

A	I	D	N	Z	D	P	S	A	B	C	N
1	2	3	4	5	6	7	8	9	10	11	12

6. Thread connection specifications	L	M12×1.5
	M	M14×1.5
	N	M18×1.5
	O	M20×1.5
	T( )	Other Specifications
7. Probe length (mm)	R	50
	S	100
	P	150
	U	200
	V	250
	W	300
	X	350
	Y	400
	Z	450
	I	500
	T( )	Other lengths
8. Material of probe rod	S	304SS
	L	316L
	T( )	Other materials
9. Flow range	A	0.3~6m/s
	T( )	Other traffic ranges
10. Temperature range	B	0~100℃
	T( )	Other temperature ranges
11. Pressure range	C	0~1MPa
	T( )	Other pressure ranges
12. Special requirements	D	Additional information
	N	Nothing

Instructions:

The FTP10 flow temperature pressure integrated sensor has an electrical interface M20 * 1.5, an output of 4-20mA (2-wire system), an input signal of Pt100, B-grade, 2-wire system, a thread specification of G1/2, a probe length of 150mm, a probe diameter of 6mm, a probe material of 304 stainless steel, a flow range of 0.3~6m/s, a temperature range of 0~100 ℃, and a pressure range of 0~1MPa. The 12th item in the table is optional.

Product Certification

Compliance and approval; Rod Weige flowmeter meets key standards and certifications for process measurement technology;Thus ensuring the highest reliability in such settings;

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