OVERVIEW

LFT703 can accurately measure the pressure of liquid, gas or steam and convert it into a 4~20mA output signal. The Transmitter can be operated locally through three buttons, handheld operator, or configuration software. The display and configuration adjustment can be performed without impacting the 4~20mA output signal. It is widely used in pressure measurement in industrial sites such as petroleum, chemical, electric power, and hydrology.

STANDARD SPECIFICATIONS

Pressure range is calibrated based on the standard zero point, stainless steel 316L diaphragm, filled liquid is silicone oil.

PERFORMANCE REQUIREMEN

Overall performance includes but not limited to reference accuracy, static pressure influence, ambient temperature influence, and other influence.

Typical accuracy: ± 0.075% of Upper Range Value (URV)
Annual stability: ±0.2% of Upper Range Value (URV)

1)Pressure calibration reference accuracy

Including linearity, hysteresis and repeatability from zero point			
Linear output accuracy	Td≤10	±0.075%	Standard range: 40kPa、250kPa、1MPa、3MPa
	10＜TD≤100	±0.0075TD%	
TD is range turn down ratio. when |URV|≥|LRV|, TD=URL/|URV| when |URV|≤|LRV|, TD=URL/|LRV|			

2) Ambient temperature influence on partial gauge pressure range

For 6kPa or lower range, the accuracy under room temperature is 0.075%, but if within full range of -20~70℃, the accuracy is 0.15%.

3) Power supply influence

When the power supply voltage varies within 12~36 VDC, if zero point and span variation not exceed ±0.005%*URV per voltage, the influence can be ignored.

FUNCTIONAL SPECIFICATION

1) Range selection

Within the upper lower limit (URL) and lower range limit(LRL), you can adjust the TD value within the allowable range to select the range.For example, if URL and LRL -40~40kPa, then adjust the TD value to 10 and select the output of 0~4kPa or -4~4kPa. To ensure accuracy, the TD value should be as small as possible, generally within 10.

2) Zero point setting

Zero and Span can be adjusted to any value within the measuring range in the table, as long as calibrated span ≥ minimum span.

3) Impact of the installation position

Installation at any position, if offset pressure not more than 400Pa, can be corrected by zero clearing.

4) Range

Gauge pressure

Range/Upper and lower range limits(URL&LRL)		kPa	Range ratio TD
C	Range	0.4~40	1~100
	URL&LRL	-40~40	
D	Range	2.5~250	1~100
	URL&LRL	-100~250	
E	Range	10~1000	1~100
	URL&LRL	-100~1000	
F	Range	30~3000	1~100
	URL&LRL	-100~3000	

5) Output

Signal	Type	Output method
4~20mA	linear	two-wire
4~20mA+HART	linear	two-wire
RS485	linear	four-wire

6) Alarm current

Low alarm mode (minimum): 3.8 mA
High alarm mode (maximum): 20.8 mA
No alarm mode (hold): maintain the effective current value before the fault
Alarm current standard setting: high alarm mode

7) Response time

Total damping constant time: equal to the sum of the damping
time constants of the electronic circuit components and the sensor diaphragm box;
Damping time of electronic circuit components: adjustable from 0-60 seconds;
Sensor diaphragm box damping time: ≤0.2 seconds;
Power-on start-up time after power failure: ≤5 seconds;
Data recovery time to normal use: ≤2 seconds;

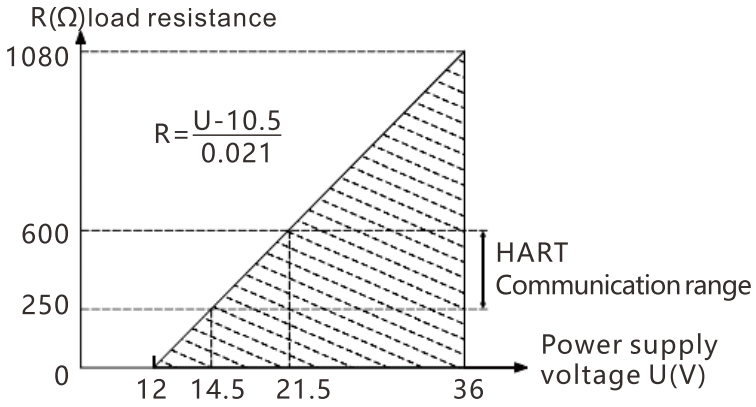
8) Environmental temperature

Item	Spec
Ambient working temperature	-20~70℃with display
Storage temperature	-40~85℃
Operating ambient humidity	5-100%RH@40℃
Protection	IP65
Dangerous occasions	ExdIICT6

INSTALL

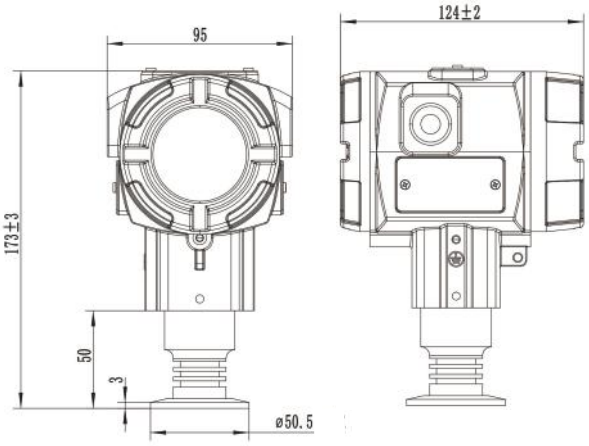
1) Power supply and load conditions

Output	Power Supply Requirement
Current	14.5~36VDC, load resistance during communication 250 ~600Ω
RS485	12-36VDC



2) Electrical connection

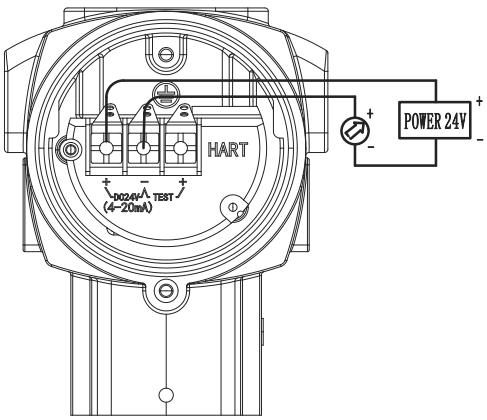
Item	Description
Electrical connection	Aluminum alloy junction box, 2 wire outlet ports with female thread M20*1.5, the main body is light blue,white cover
Wire outlet protection	One end with M20*1.5 waterproof connector, the other end with plug, PVC material, suitable for wire diameter 6-8mm, protection class IP65
	Explosion-proof configuration, one end with female NPT1/2 thread, the other end with a plug, stainless steel, for wire diameter 6-8mm, protection class IP65
	Explosion-proof configuration, one end with internal thread M20*1.5, the other end with plug, stainless steel, for wire diameter 6-8mm, protection class IP65

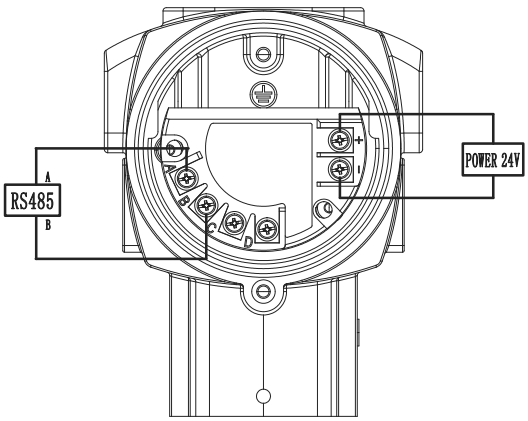


PHYSICAL SPECIFICATIONS

Measuring Diaphragm Enclosure	Stainless steel, 316L
Diaphragm	316L, Hastelloy, Tantalum
Process flange	Stainless steel 304, stainless
Transmitter housing	Aluminum alloy
Housing seal	Nitrile rubber (NBR)
Nameplate	Stainless Steel 304

ELECTRICAL CONNECTION





ORDER REF NO.

Code and Description												
Clamp Type Pressure Transmitter LFT703												
1	Pressure Type	G	Gauge pressure									
2	Range	C	0-400Pa~40kPa(0-40~4000mmH2O)/(0-4~400mbar)									
		D	0-2.5kPa~250kPa(0-0.25~25mH2O)/(0-25~2500mbar)									
		E	0-10kPa~1MPa(0-1~100mH2O)/(0-0.1~10bar)									
		F	0-30kPa~3MPa(0-3~300mH2O)/(0-0.3~30bar)									
3	Diaphragm Material	S	316L									
		H	Hastelloy C									
		T	Tantalum									
4	Filling Liquid	D	Silicone oil									
5	Electrical Connection	1	M20*1 .5 Female PVC									
		2	M20*1.5 Female, Stainless Steel									
		4	1/2NPT Female, Stainless Steel									
6	Output	N	4~20mA									
		J	4~20mA+HART									
		F	RS485									
7	Process Connection	K2	50.5mm chuck									
		Y	Other									
8	Mounting Bracket	N	No bracket									
		B4	Pipe bending bracket (carbon steel)									
		B5	Plate bending bracket (carbon steel)									
9	Explosion-proof	N	without Explosion-proof									
		D	Explosion-proof ExdIICT6									
10	Display	M5	With display									
		N	No display									
11	Additional Requirement	N	Connector material is 316L									
		K	Degreasing and cleaning treatment									
		L	Hanging tag plate									
		H	Lightning protection(withstands transient voltage)									
		E	English nameplate									
LFT703	G	C	S	D	1	J	K2	N	N	M5		