LEFOO

LFT3019

SMALL-DIAMETER LEVEL TRANSMITTER

PRODUCT OPERATION MANUAL

PRODUCT FEATURES

The LFT3019 Small-Diameter Level Transmitter features a fully sealed submersible structure and uses a high-quality, high-stability pressure sensor as its sensing element. Its slender 19 mm probe makes it ideal for narrow openings and is widely used for measuring the level and depth of water and wastewater in: Groundwater monitoring；Deep wells;Lift stations;Surface tanks;Storage reservoirs.

The housing is fully welded, and all connection points (housing, cable, etc.) are sealed with multi-layer protection. Internal components are potted to ensure long service life and reliable performance in: Water treatment;Industrial process control;Environmental monitoring.

SPECIFICATION

Measurement Range①	
Measurement Range	0～1...350mH_2O
Overload Pressure	1.5× full scale
Media	
Type	Liquids compatible with wetted materials
Output Signal & Power Supply	
Output Signal & Power Supply	2-wire：4～20mA / Vs=10～30VDC
	3-wire：0～10V / Vs=12～30VDC
	3-wire：0～5V / Vs=10～30VDC
	3-wire：0.25~1.25、0.5～2.5V/Vs=2.8~5.5VDC
	4-wire：Modbus-RTU/RS485/Vs=10～30V
Performance	
Accuracy②	±0.25% F.S.（Standard Accuracy）
	±0.1% F.S. (High Accuracy)
Long-Term Stability	±0.2% F.S./year（Standard Accuracy）， ±0.1% F.S./year（High Accuracy）
Response Time	approx. 1 ms

Note①：Units can be converted to ftH_2O@4°C,inH_2O@4°C, m, mm, etc. For m/mm units, specify the medium's density.

Note②：Accuracy conforms to IEC 60770 (non-linearity, hysteresis, repeatability)

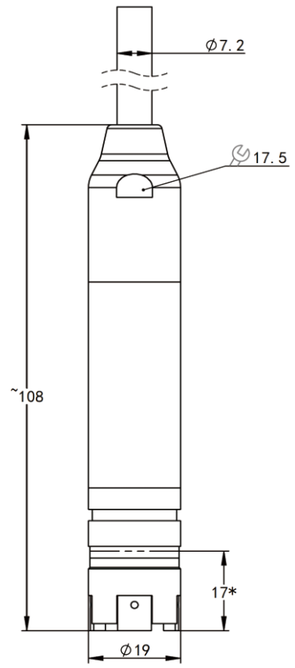
Compensation Temp	
Compensation Range	0~70°C (Standard Accuracy)
	-20~85°C (High Accuracy)
	Note:For a range of ≤20kPa，please consult.
Zero Temp Drift	±1.0% F.S. @ 35°C (≤35kPa: ±1.5%)③
Span Temp Drift	±1.0% F.S. @ 35°C (≤35kPa: ±1.5%)③
Environmental Conditions	
Temperature Range	Operating Temp：-40~80°C
	Media Temp：-40~80°C
	Storage Temp：-40~85°C
Protection Rating	IP68
Electrical Protection	
Reverse Polarity	Protected (no damage, circuit inactive)
Mechanical Stability	
Vibration	20g（20~5000Hz)
Shock Resistance	20g（11ms)
Insulation Performance	
Insulation Resistance	>100MΩ，500VDC
Dielectric Strength	500VAC, 50Hz, 1min (no breakdown or arcing)

Note③：If Range ≤35 kPa temp drift ±1.5%，0~70℃

ELECTRICAL PROTECTION

Component	Material
Probe Housing	304
	316L
Sensor	Silicon Piezoresistive, 316L Stainless Steel
O-Ring	FKM (−20 to 200°C)
	NBR (−40 to 120°C)
Cable	PU Ø7.2±0.2mm
	NBR, Ø7.2±0.2mm

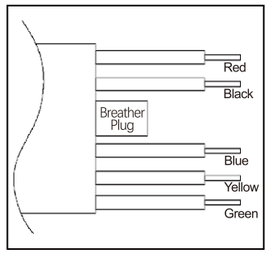
DIMENSION



*This dimension is the distance from the sensing diaphragm to the bottom

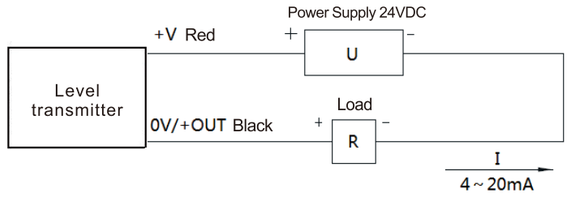
ELECTRICAL CONNECTION

ELECTRICAL CONNECTION

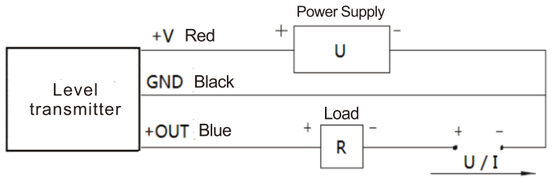


Wire Color	2-Wire 4–20 mA	3-Wire Voltage	Modbus-RTU/RS485
Red	+V (Power)	+V (Power)	+V (Power)
Black	0V / +OUT	GND（Common）	0V
Blue		+OUT (Signal)	
Yellow			RS485-A
Green			RS485-B

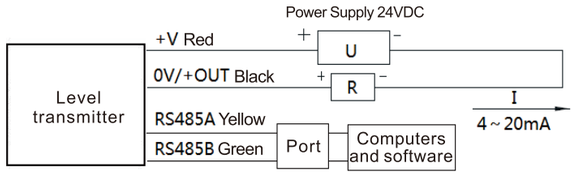
⚠ For gauge pressure models, ensure the breather plug remains dry and intact.



Wiring diagram of the 4-20mADC two-wire output transmitter



Wiring diagram of the three-wire voltage output type transmitter



Wiring diagram of the Modbus-RTU/RS485 output type transmitter