

Vortex Flow Meter Common Problems and Troubleshooting

Phenomenon	Cause	Troubleshooting	Solutions
No display	Failure of power supply	Use a universal meter to measure the voltage of a power source	Wire the power again or use a new power
	The power is not wired	Use a universal meter to measure the voltage of a power source	Wire the power
	The cable is broken	Check to see if there is a break in the cable	Check the cable and wire again
	Wiring is wrong	Check to see if it is wired to the correct terminal	Wire again
The flow is displayed 0 but there is flow in the pipe	Flow rate is lower than the meter's lower limit	Flow rate is lower than the meter's lower limit	Flow rate is lower than the meter's lower limit
	The flow of small signal cut off is too high	The flow of small signal cut off is too high	The flow of small signal cut off is too high
	Energy threshold value is too high	Energy threshold value is too high	Energy threshold value is too high
	Transmitter failure	Transmitter failure	Transmitter failure
	Sensor damage	Sensor damage	Sensor damage
	Pipe or sensor blockage	Pipe or sensor blockage	Pipe or sensor blockage
There are flow readings but no flow in the pipe	Power frequency interference	Check to see if the frequency display values on meter is stable and as same as the power frequency	Properly rewire the meter with shielded cable.
	High voltage devices or high frequency interference around the flow meter	Check to see if there is high voltage instrument or high frequency interference close to the flow meter	Eliminate the interference
	Heavy vibration along the pipe line	Check the vibration on the pipe line	Tighten the pipeline where the flow meter is installed

	The valve is not closed properly and there is flow leak into the pipe	Check the pressure and if valve is closed and sealed	Repair the valve
The flow rate reading fluctuate significantly	The gasket and the pipe are not concentric	Check the position of the gasket	Reinstall the gasket
	The flow meter pipe body and the pipe line are not concentric	Check if the flow meter pipe body and the pipe line are not concentric	Reinstall the meter
	The straight pipe section is not long enough or the inner diameter of the flow meter pipe body do not match the pipeline	Check the straight pipe length and the diameter of the pipeline	Relocate the flow meter
	Heavy vibration on the pipe line	Sense the vibration on the pipe line	Tighten the pipeline where the flow meter is installed
	The fluid is not full in the pipe	Check the fluid status and the location of the meter	Re-locate the flow meter
	Two phase flow	Check if there is 2-phase flow according to the pressure and temperature of the fluid	If the fluid is liquid-solid two phase flow,install a filter at upstream of the flowmeter. If the fluid is liquid-gas two phase flow, install a getter upstream.
	Transmitter failure	Replace the transmitter with another same type of transmitter.	Replace the transmitter
Big difference between the flow reading and the process flow rate	No density compensation for steam measurement	Check the density compensation devices and the setting	Fix density compensation
	The estimated flow rate before using the meter is wrong	Use other flow meters to confirm the actual flow rate	Use other flow meters to confirm the actual flow rate
	Incorrect settings	Check the settings of K factor, upper and lower limit of flow rate	Correctly set the meter