Coriolis Flowmeter Fault Finding Guide

Vendor neutral fault finding guide for field technicians

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Before you start

- Permit, isolation and control room informed.
- Put the loop in manual or inhibit trips as authorised.
- Use certified test equipment in hazardous areas.
- Record as found readings before changing anything.

Quick checks

- Meter full of single phase fluid?
- Drive gain normal compared with commissioning?
- Zero recorded at process conditions?
- No pipe stress on the meter?

Symptoms, causes and fixes

Symptom	Likely causes	Checks and fixes
Flow at zero	Zero not set at process conditions, mounting stress, valve passing	Zero with line full and still; check supports; confirm valves
Noisy flow and density	Gas bubbles or solids (two phase), cavitation	Raise pressure; check drive gain; locate meter lower in line
Density wrong	Coating, erosion, gas entrainment, wrong calibration	Check with lab sample; clean or check tubes
High drive gain	Two phase flow, coating, tube damage	Remove gas; inspect; contact maker if persistent
Reading shifts with temperature	Zero not done at operating temperature, stress	Re zero hot; check pipe expansion and supports
Sensor fault alarm	Pickoff or drive coil failure, cable fault	Check cable and terminal resistance per manual

NAMUR NE107 status

Status	Meaning	Action
F Failure	Output invalid	Repair or replace; check loop goes to safe state
C Function check	Simulation, calibration or maintenance active	Finish the work, return to normal mode
S Out of specification	Operating outside limits or uncertain	Check process conditions and sensor
M Maintenance required	Still valid but degrading	Plan maintenance before failure