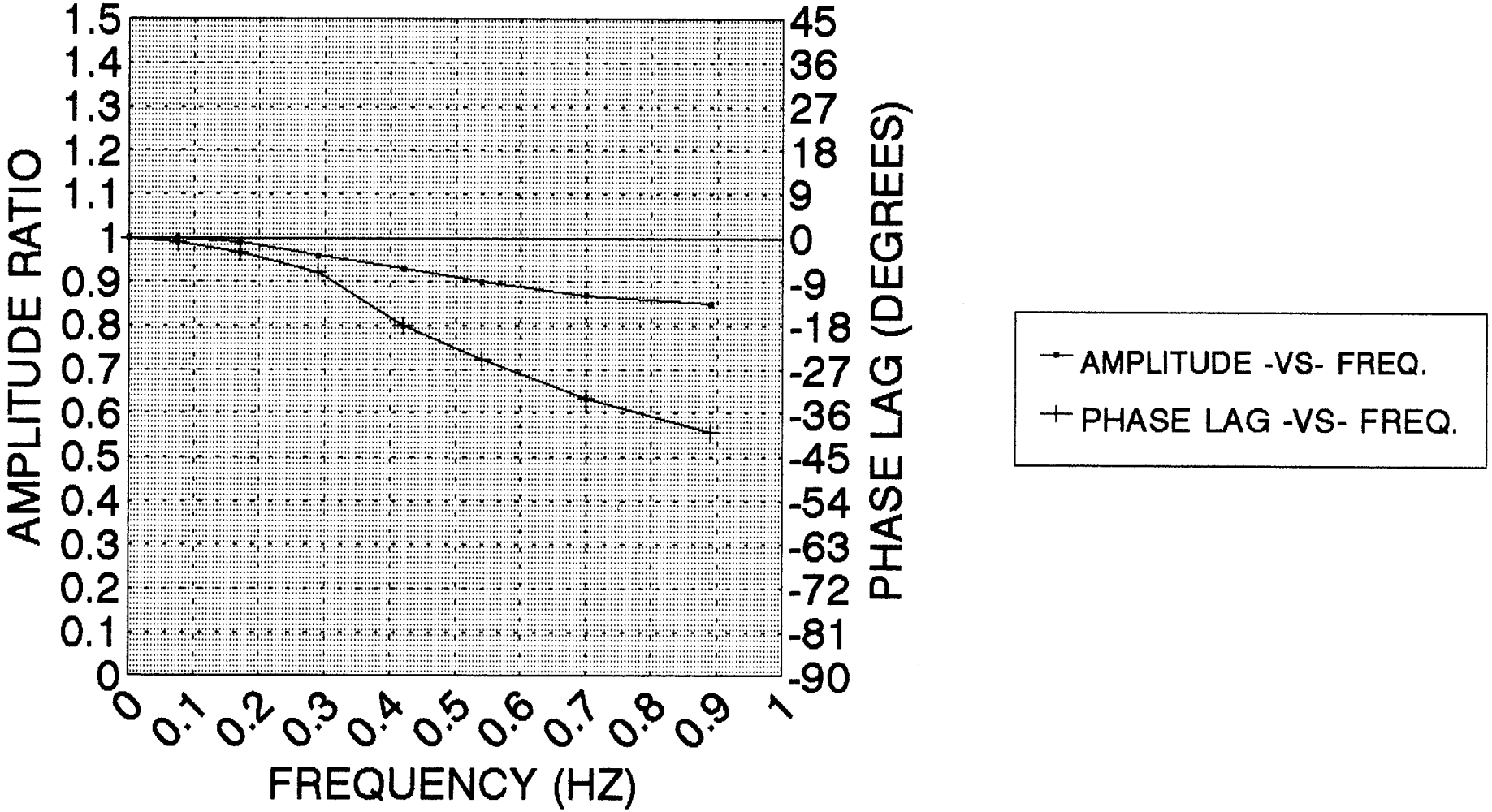
Cline Sensors
Frequency Response

The sensors are fluid based. The fluid stays perpendicular to the gravity vector (level) as the housing rotates. The fluid does not have any sticky or separation properties like mercury. The output is sensitive to any other accelerations besides gravity. It will detect angular vibrations and changes in angular velocities in it's sensitive axis. It is not very sensitive to motions parallel to the resultant acceleration normally gravity or in the cross axis rotation.

The following 3 charts show the frequency response of Cline sensors. The first chart labeled "Cline Standard Sensor Frequency Response No Rib" is the output of standard sensors ratio R1, analog A1, lead L1 and digital D1. The lead sensor has a rib between the two plates that causes the output to lag as shown on the second chart labeled "Cline Lead Sensor Frequency Response Lead Jumper Not Installed". The third chart labeled "Cline Lead Sensor Frequency Response Lead Jumper Installed" shows how the electronics detects the motion and changes the lag to a lead.

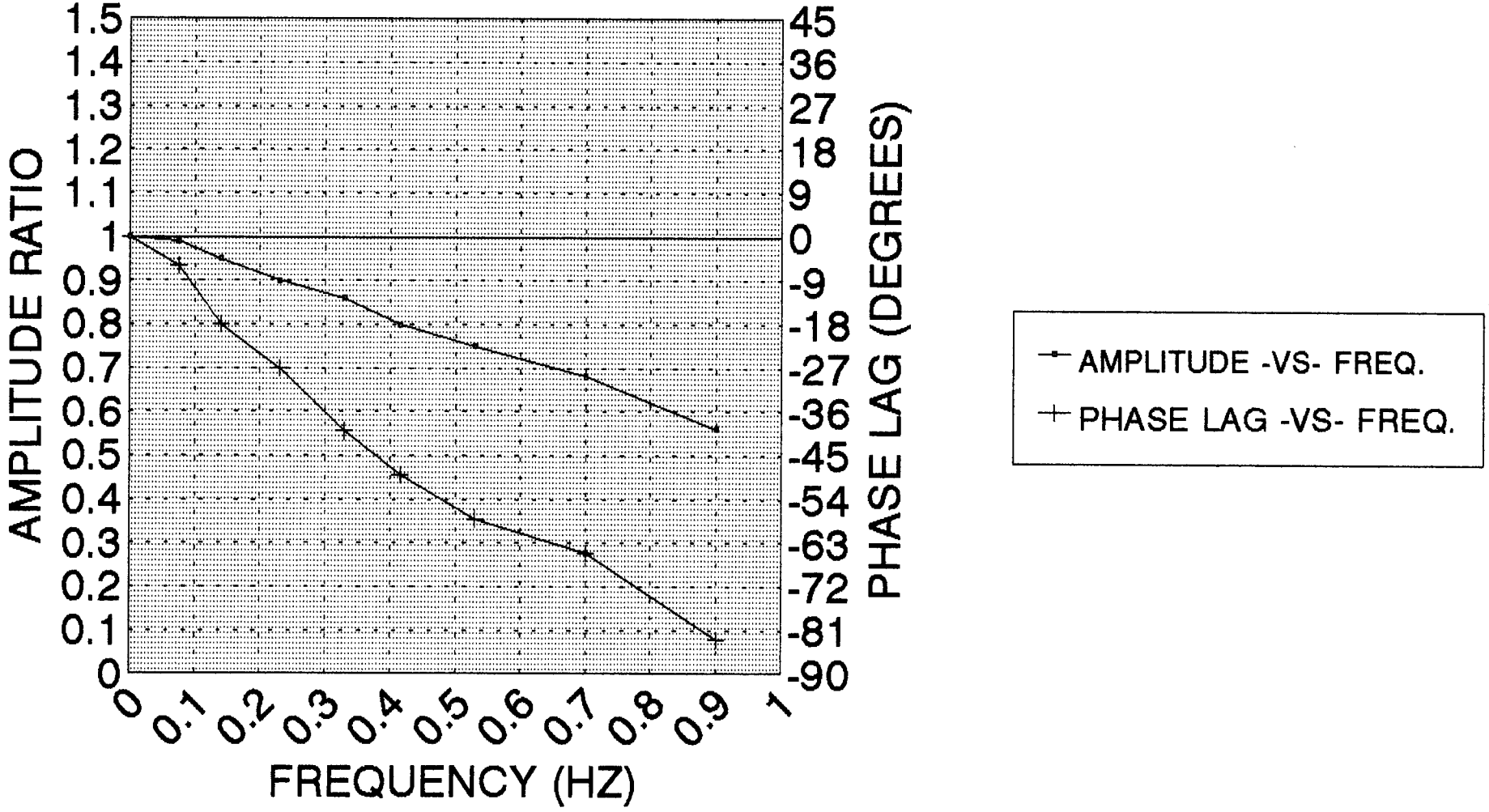
CLINE STANDARD SENSOR

FREQUENCY RESPONSE
NO RIB



CLINE LEAD SENSOR

FREQUENCY RESPONSE
LEAD JUMPER NOT INSTALLED



CLINE LEAD SENSOR

FREQUENCY RESPONSE
LEAD JUMPER INSTALLED