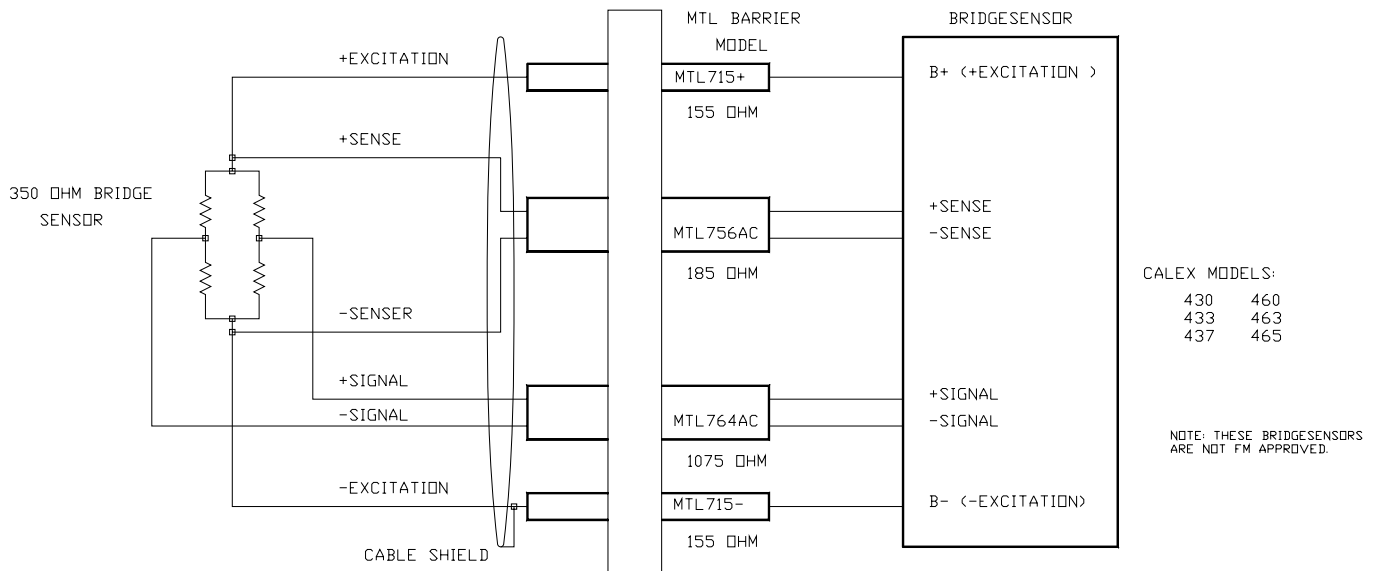


Use of CALEX Bridgesensors In Hazardous Locations

A number of the CALEX Bridgesensors can be used in hazardous locations. The risk of an explosion exists when there is "sufficient electrical energy . . . under normal or abnormal conditions to cause ignition of a specific flammable or combustible atmospheric mixture in its most easily ignitable concentration" (reference the National Electrical Code). When using the CALEX Bridgesensors in a hazardous location, sufficient electrical energy for ignition can be generated by the excitation supply or by a catastrophic electrical failure. Therefore it is necessary to follow the guidelines below in order to insure safe operation.

As a general rule, electrical circuits with power requirements of less than 1 watt can be made intrinsically safe. In order to ensure that this condition is met, it is necessary to use the Bridgesensor with Intrinsic Safety Barriers. The Control Drawing below shows the proper interconnections for safe operation. Note that this configuration works only with the following Models: 430, 433, 437, 460, 463, and 465. Note that there is a significant voltage drop across the safety barriers which leaves 5.0 to 6.7 volts at the bridge. Depending on the rated output of the bridge and the load, this may prevent full scale readings of 10 volts or 20mA due to insufficient amplifier gain. Therefore, it is recommended that Models 433, 437, or 463 be used in this configuration due to their higher amplifier gain capability. Note that none of the CALEX Bridgesensors are FM approved.



ADJUST EXCITATION BY MEASUREING BETWEEN +SENSE AND -SENSE ON BRIDGE SIDE OF BARRIER. ADJUST FOR 5.0 VOLTS TO 6.7 VOLTS.

BEST MODELS TO USE BECAUSE OF HIGHER GAIN AMPLIFIER ARE

| |
|-----|
| 433 |
| 437 |
| 463 |