

Monitor hydrogen sulfide (H₂S) gas for oil wells

APPLICATION A188

Type of Company: Oil Producer

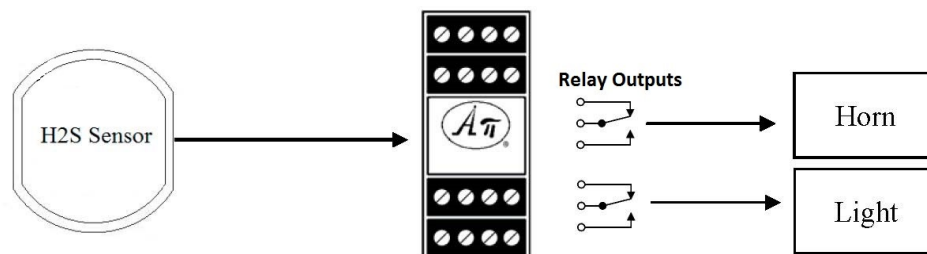
Location: Texas

Our customer is one of the largest independent crude oil and natural gas companies in the United States. Hydrogen Sulfide gas can be one of the most vicious and deadly hazards in the oil and gas industry. It goes by names such as H₂S or sour gas and is a highly toxic, colorless, combustible gas. It is heavier than air and has the unmistakable odor of rotten eggs. Leaks in drilling applications can see large quantities of H₂S released, which becomes extremely hazardous to well-site personnel. Areas that are susceptible to H₂S leaks include the drillers stand, blow-out preventer, shale shaker, and mud tank.



The Engineering Issue

- The engineer has a requirement for two relay outputs, one to sound a horn and the other to illuminate a warning light, when the H₂S levels exceed the recommended “Short Term Exposure Levels.”
- The engineer is using a Redline unit that senses hydrogen sulfide gas and gives a 4-20 mA output.



The engineer used an APD 1080 as the alarm unit for the 4-20 mA signal. The APD 1080 has “failsafe” relay operation, is easy to replace in the field, and it has one set-point to operate both relay contacts – one for horn warning signal and the second to illuminate the warning light.

Problem. Solved.