

API-Cecom Group *n'fo*

Technical & Application Note A188

Application: Monitor H₂S gas for oil wells

Type Of company: Oil producer

Location: Texas

Problem: The 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. However the sense of smell is not a reliable warning because exposure to this gas quickly deadens the sense of smell. 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.

Note: For additional information on this process see http://en.wikipedia.org/wiki/Oil_well_5

The engineer is using a Redline unit that senses combustible gases and gives a 4-20 mA output. When the H₂S levels exceed the recommended "Short Term Exposure Levels" the engineer desires two relay outputs—one to sound a horn and the other to illuminate a warning light.

Solution: : The customer chose to use an APD 1080 (DC single Alarm) as the alarm unit for the 4-20 mA signal. The APD 1080 D 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. The APD 1080 D meets all the requirements and is the perfect solution for the application.

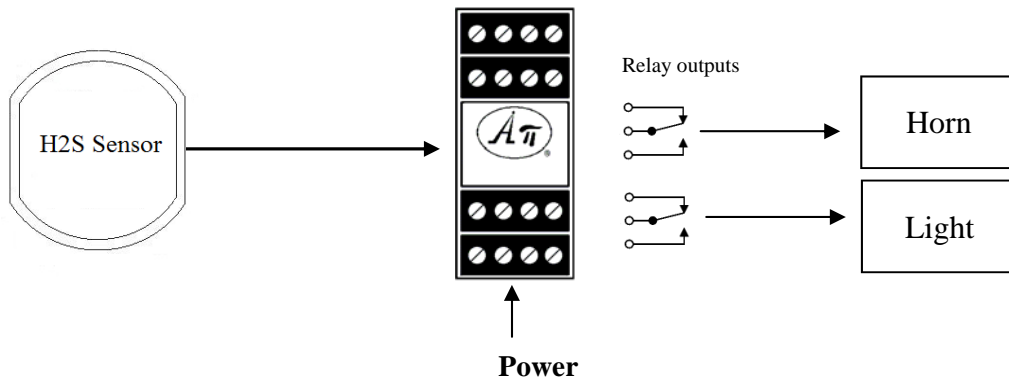


APD 1080 D

DC Input Single Alarm



Photo by Antandrus



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