

- **⊘** SENSOR CALIBRATION
- **⊘** FLEXIBILITY
- **⊘** COST AND SPACE SAVING

# A SOLID BUSINESS CASE IN COLLABORATION WITH **TELEDYNE TECHNOLOGIES**

# GENERAL INFORMATION ABOUT THE PROJECT



# **TARGET OF THE PROJECT:**

Development of gas detection equipments



### **DEPARTMENT:**

R&D - Teledyne Gas Measurement Instruments Limited



### **HEAD OF PROJECT MANAGEMENT:**

Fraser Mathieson



# **ROLE OF MCQ INSTRUMENTS:**

Blending and simulation of natural gas mixtures

### MORE INFORMATION ABOUT THE COMPANY

Teledyne provides enabling technologies for industrial growth markets. We have evolved from a company that was primarily focused on aerospace and defense to one that serves multiple markets that require advanced technology and high reliability. These markets include deepwater oil and gas exploration and production, oceanographic research, air and water quality environmental monitoring, factory automation and medical imaging.

### DESCRIPTION OF THE APPLICATION AND THE TARGET

Teledyne Gas Measurement Instruments Limited sells and distributes gas detection instruments, for the measurement of natural gas, to global gas utilities markets.

The molecular make up of natural gas varies from country to country. For research and development purposes it

can be useful to understand how a gas detector will perform when exposed to these variations in natural gas composition.

The MCQ gas blender is used to simulate approximations of natural gas mixtures allowing on-demand, real time characterisation of sensors.

# BENEFITS AND SAVINGS

Buying cylinders of natural gas blends is expensive and limits the availability of mixtures that may be required. Gas cylinders are also large and often require special storage arrangements, as well as taking up valuable space.

By using the MCQ gas blender it is possible to dial up a simulation of a natural gas mixture at any time, and to a certain degree, different concentrations of the blended natural gas mixture. The ability to blend natural gas simulations on-demand is an incredibly powerful tool in the development of innovative gas detection equipment. And provides a level of flexibility that gas cylinders cannot provide



### **GAS MIXER VS GAS CYLINDER**

The ability to blend natural gas simulations on-demand is an incredibly powerful tool in the development of innovative gas detection equipment. And provides a level of flexibility that gas cylinders cannot provide.



### **COSTS AND SPACE SAVINGS:**

Buying cylinders of natural gas blends is expensive and limits the availability of mixtures that may be required. Gas cylinders are also large and often require special storage arrangements, as well as taking up valuable space.



### **FLEXIBILITY:**

By using the MCQ gas blender it is possible to dial up a simulation of a natural gas mixture at any time, and to a certain degree, different concentrations of the blended natural gas mixture.



### **SOFTWARE AUTOMATION:**

Thanks to our Software PRO Version and its option "Automatic Program", now Teledyne can bring forward experiments in automation.



#### FLOW STABILITY:

Thanks to our revolutionary method every gas flow has a great stability making possible to have a stable flow also for lower flow-range.



### SUCCESSFUL ACHIEVEMENT:

The MCQ gas blender is used to simulate approximations of natural gas mixtures allowing <u>on-demand</u>, real time characterisation of sensors.

# **READY TO TALK ABOUT YOUR SOLUTION?**