

APPLICATION INFORMATION N° 301
CHEMICAL & PETROCHEMICAL INDUSTRY



Trimod'Besta

Fife Ethylene Plant, Mossmorran, United Kingdom





Ethylen-Cracker

ExxonMobil Chemical's Fife Ethylene Plant (FEP) is one of Europe's largest and most modern ethylene plants. Construction at Mossmorran, 25 miles north of Edinburgh, began in 1981 and the plant was officially opened by the Queen in 1986. It was the first plant specifically designed to use natural gas liquids from the North Sea as feedstock.

The plant has an annual capacity of 830'000 tons of ethylene. To make ethylene, ethane feedstock is heated to almost 900°C to 'crack' it to ethylene in the steam cracking furnaces. The gas stream is then cooled to below -160°C to recover the valuable ethylene product.



2 high and 1 high high alarm

Requirement for level switches

- Hazardous area. Zone 0 for floats
- Intrinsically safe circuits, gold plated contacts
- Operating temperature T_o : -160°C to +320°C
- Min. Density: 0.4 kg/dm³
- Interface control of 2 liquids (e.g. oil and water)
- Extremely high reliability of switch mechanism
- Manufacturing of complex float chambers incl. welding procedure specification

Why Trimod Besta?

Bachofen offers level switches for applications from -200°C to +400°C and from vacuum to 320 bar process pressure. High reliability, an unbeatable life time as well as long lasting experience in handling ambitious projects were further arguments for the contractor to choose Trimod Besta level switches and float chambers.

Installed level switch types

Totally 114 Trimod Besta level switches and 110 float chambers are installed in the hot (400°C) and in the cold (-160°C) part of the ethylene production process.

Switch types (4 examples out of 21 different switches)

2B 131RE90 041

2DB 131RE91 07

2HB 134RE90 02

2TDB 132RLE91 76

