

# SYNTEL

## Devices, interfaces and options

Addressable field devices  
 Many interfaces available  
 Customer specific interface

**SYNTEL integrates a wide range of hazardous area devices on a secure, fault tolerant addressable network. Standard and client specific HMI's are available along with communication interfaces to third party systems.**

SYNTEL is a distributed intelligent network with each device having a unique address.

The system communicates without a bus master. Each device transmits and receives bi-directional data, without a centralised processor. Each SYNTEL device is intelligent and has built-in fault isolation, if a short or open circuit is detected the units either side of the fault isolate the error without affecting system performance.

SYNTEL Multi-Range devices can be interfaced and addressed directly whilst any unit having a 4-20mA output (e.g 3rd party products) can be interfaced using a MECH.

Each device / node stores information concerning a range of parameters in non-volatile memory.

A wide range of HMI interfaces are available using point and click navigation. Detailed data acquisition, display and login, as well as SYNTEL configuration capabilities are made available which can be tailored to Client specific requirements. High quality graphics allow detailed plant layouts to be presented these also show device location. Simtronics documentation can also be accessed through some interfaces.

### Features

Large range of addressable detectors

Universal device interface

Large range of interface modules

Integral OPC server

Standard or Ex housing modules

Large range of HMI options

### Benefits

Wide product choice

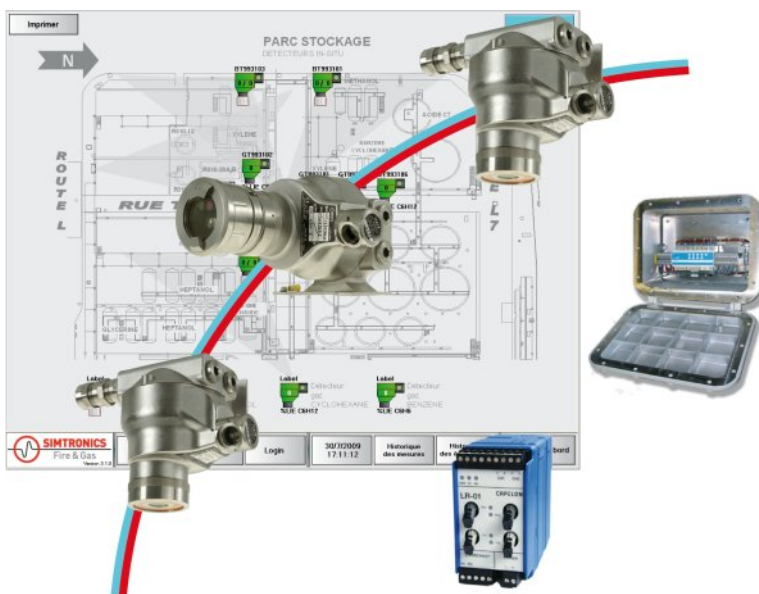
Interfaces 4-20mA signals

Allow easy access to SYNTEL network

Standardised interface for 3rd party systems

Suitable for use in Ex or non-Ex areas

User choice in HMI requirements



## SYNTEL devices



**CATALYTIC FLAMMABLE GAS DETECTOR**  
 Technology: low temperature oxidation process  
 Detects: flammable gases  
 Range: 100% LEL  
 Housing: aluminium or stainless steel



**ELECTROCHEMICAL TOXIC GAS DETECTOR**  
 Technology: electrochemical cell  
 Detects: toxic gases, oxygen, ppm hydrogen  
 Range: see data sheet  
 Housing: aluminium or stainless steel



**SOLID-STATE (MOS) GAS DETECTOR**  
 Technology: solid-state semiconductor  
 Detects: H<sub>2</sub>S  
 Range: 50, 100, 200ppm  
 Housing: aluminium or stainless steel



**MULTI-SPECTRUM IR FLAME DETECTOR**  
 Technology: 3 x IR or UV/2xIR  
 Detects: hydrocarbon fires  
 Housing: aluminium or stainless steel

## Other devices



**IR POINT GAS DETECTOR**  
 Technology: IR absorption  
 Detects: hydrocarbon gases, CO<sub>2</sub>  
 Range: 100% LEL, % volume  
 Housing: stainless steel



**IR EXPENDED POINT GAS DETECTOR**  
 Technology: IR absorption  
 Detects: hydrocarbon gases  
 Range: 20% LEL  
 Housing: stainless steel



**LASER OPEN PATH GAS DETECTOR**  
 Technology: near IR laser scanning  
 Detects: H<sub>2</sub>S, CO<sub>2</sub>  
 Range: 0-200ppm.m H<sub>2</sub>S  
 Path lengths: 5-50m  
 Housing: stainless steel



**OPEN PATH IR GAS DETECTOR**  
 Technology: IR absorption  
 Detects: methane  
 Range: 5 LEL.m  
 Housing: stainless steel

## Modules and interfaces



**PROGRAMABLE RELAY MODULE**  
 Can be placed close to the application  
 Hazardous or non hazardous areas  
 Relay module 8 inputs - 8 outputs  
 LEDs's indicate input/output state  
 Programmable logic with SYNTEL interface



**EX DISTRIBUTION LOOP BOX**  
 Enables local power distribution  
 Ex approved  
 Provides up to 4 energized loops



**SYNTEL / MODBUS COUPLER**  
 CML is a coupler (gateway) between MODBUS/JBUS and SYNTEL.  
 CML is the slave of a ModBus master. It enables access to the reading and writing functions of the ModBus table.  
 Rail DIN format, use in non-Ex areas.



**LON / IP INTERFACE**  
 NIC/iP module is an interface between SYNTEL and a client iP c network, links to SCADA or HMI.  
 Rail DIN format, used in non-Ex areas.



**FIBRE OPTIC COUPLER**  
 LR01 is a dual channel LON/Fibre optic interface. It enables data transmission over long distances.  
 Rail DIN format, used in non-Ex areas.



**MECH**  
 Interface module between a 4-20mA output device and SYNTEL network.  
 Ex or safe area use.  
 Accepts up to 4 x 4-20mA devices.

## Options



**RACKABLE PC WITH TOUCH SCREEN**  
 Industrial rack mount PC touch screen interface for configuration and maintenance.  
 Designed to Client requirements.



**MAINTENANCE VIEW**  
 Enables rapid visualisation of device location and state.  
 Detailed device state available in one click.



**SUPERVISION**  
 Simtronics offers SYNTEL with one or more HMI's. Plant-wide mimic usually provides top level screen. Interface designed to Client specific requirements.