SIEMENS

Flyer

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SIMATIC ET 200iSP

The Field Mounted Solution for Hazardous Areas

SIMATIC ET 200iSP is a distributed I/O system for hazardous areas. The intrinsically safe I/O can be installed directly in areas subject to gas (Zone 1, 2) and dust (Zone 21, 22) related explosion hazards. SIMATIC ET 200iSP is a combination of safety barriers and I/O – integrated in one single unit. This eliminates the wiring effort associated with traditional solutions based on linking individual I/O with safety barriers.

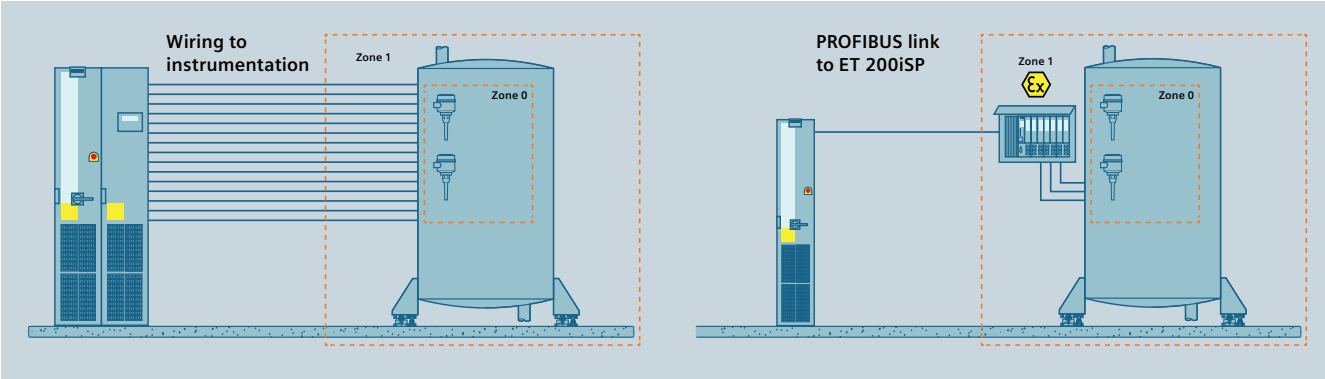
Since SIMATIC ET 200iSP can be mounted directly in the hazardous area, there is a considerable reduction of required cable runs offering significant cost savings during both engineering and operational phases of the plant.

Centralized Approach

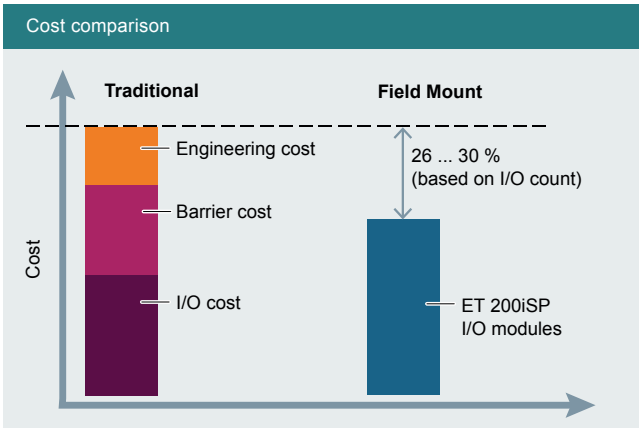
Traditional solutions for hazardous areas are based on a centralized I/O approach whereby each and every sensor and actuator is connected to the sensors via point-to-point hardwired, intrinsically safe barriers. This approach usually requires significant design and engineering effort. A large number of individual components such as safety barriers and terminals have to be combined together, resulting in a high potential for errors.

Distributed Approach

A distributed approach using I/O with inbuilt safety barriers allows the entire system to be mounted directly in the hazardous area, adjacent to the sensors and actuators. This is exactly what SIMATIC ET 200iSP offers: a fully compatible, compact, hazardous area solution based on the distributed approach. It significantly reduces the overall engineering effort by eliminating components such as external safety barriers. The distributed approach also reduces the number of required cable runs, which means less effort during comissioning, lower risk of wiring errors and simplified bus connections of distributed I/O stations.



Centralized Approach vs. Distributed Approach



Costs comparison between traditional and field mounting

SIMATIC ET 200iSP also offers SIL3-rated fail-safe capability I/O modules which are suitable for Ex-area zone 1. This makes it possible to handle standard and fail-safe communications on one bus with PROFIsafe.

Some of the main operational benefits of SIMATIC ET 200iSP

- Elimination of complicated, expensive and space-consuming switch rooms
- Line monitoring in Ex-area up to the sensors and actuators
- Enhanced diagnostics via communication bus (PROFIBUS and PROFIsafe)
- Flexible modular redundancy option for applications requiring high availability
- Configuration in run capability e.g. expansion during normal operation
- Hot swapping during normal operation

SIMATIC ET 200iSP – Testimonials

"SIMATIC ET 200iSP was installed as a standard in our process facility and aided in reduced installation cost and commissioning time for the duration of the project"
Shane Cunning, Irish Distillers – Pernod Ricard

"We particularly appreciated the seamless integration with SIMATIC PCS 7 system and the higher level of diagnostics offered. Additionally, due to the construction and certification we have benefitted from the ability to hot swap modules without disrupting the process operations"
Steve Watson, QSI Group

"We have been using SIMATIC ET 200iSP for approximately 5 years now. During this time we have found it to be a simple, reliable and cost effective solution to providing distributed I/O within hazardous areas"
Gordon Fleming, KigTek

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