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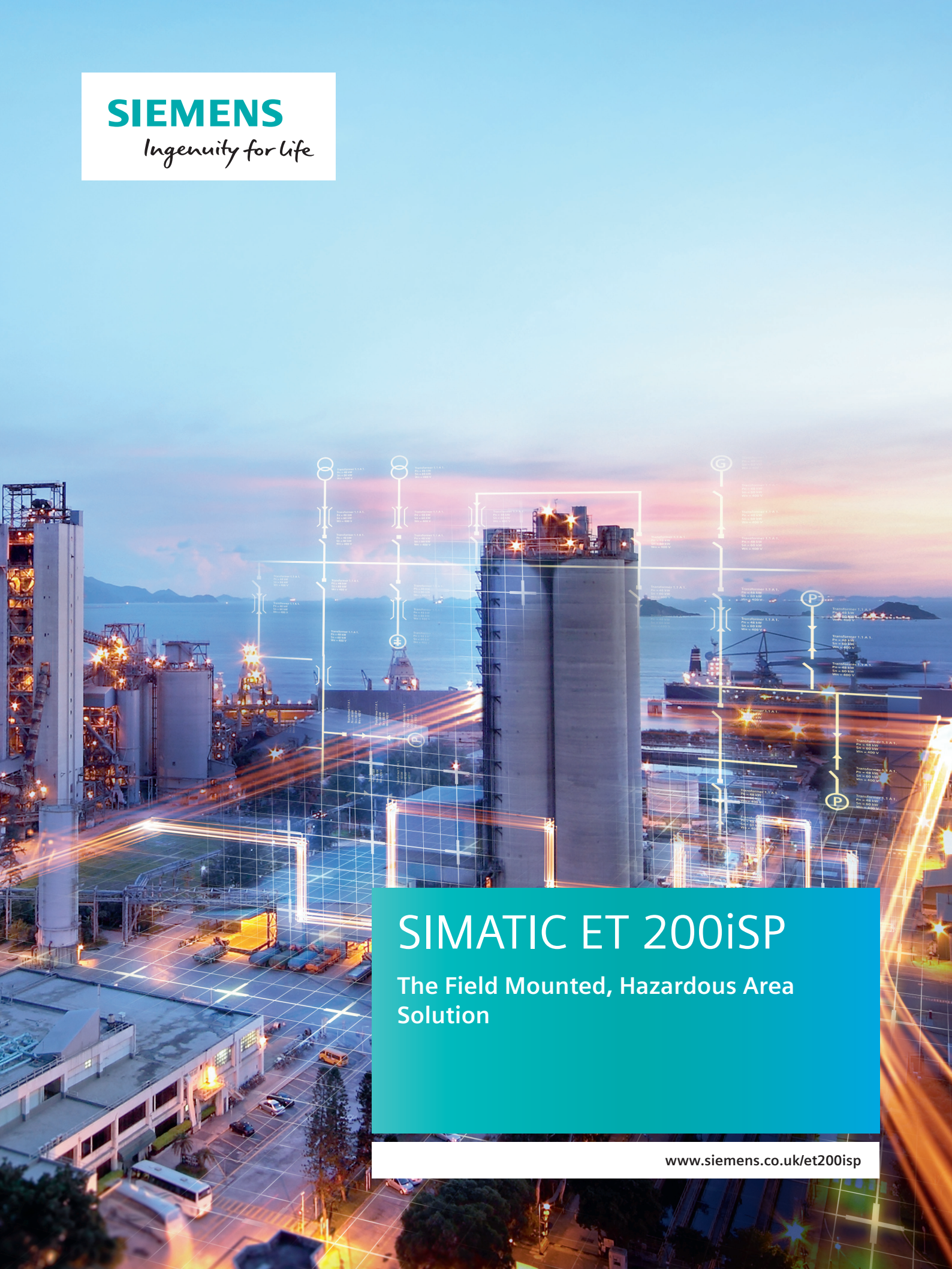


SIMATIC ET 200iSP

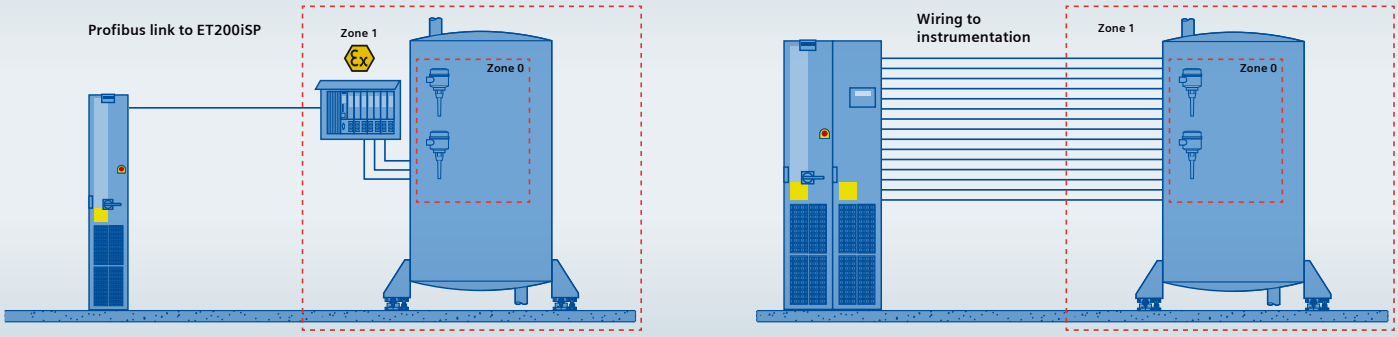
The Field Mounted, Hazardous Area Solution

www.siemens.co.uk/et200isp

What is SIMATIC ET 200iSP?

**SIMATIC ET 200iSP is a distributed hazardous area I/O system that 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 in one integrated unit which eliminates the need of traditional non-intelligent engineered solutions based on linking individual I/O with safety barriers. Since SIMATIC ET 200iSP can be mounted directly into the hazardous area it can considerably reduce the required cable runs and offers significant cost savings during both engineering and operational phases of the plant.**

Centralised vs Distributed Approach



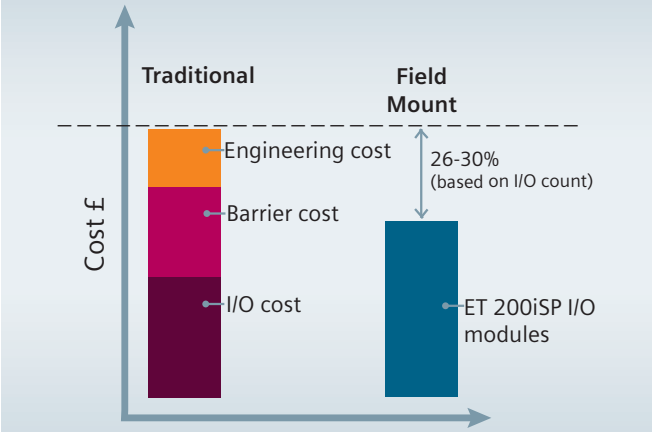
Centralised Approach

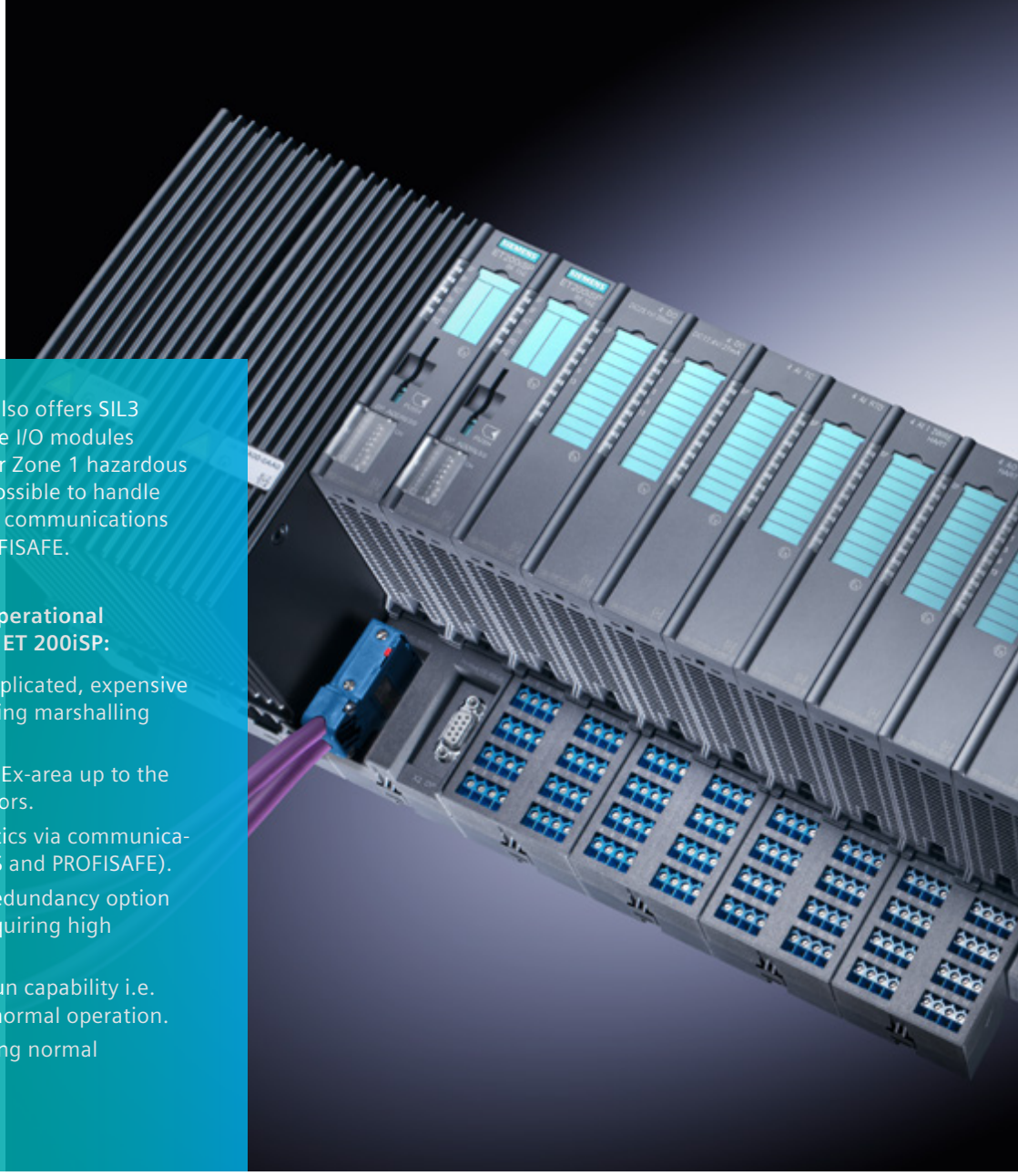
Traditional hazardous area solutions are based on a centralised I/O approach where the I/O is typically mounted in the safe area and connected to the sensors via point to point hardwired intrinsically safe barriers. Such a solution relies heavily on combining together various individual components such as I/O, safety barriers and terminals and requires significant design and engineering effort.
A centralised solution requires a number of components to be used, the result of which is the introduction of multiple points of failures.

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, it is a fully compliant hazardous area solution based on distributed approach.
It significantly reduces the overall engineering effort by eliminating external safety barriers and additional components. The distributed approach also reduces the need for multi-core cables carrying I/O signals; this means reduced installation effort; reduced risk of wiring errors and simplified bus connection of I/O stations.

Cost comparison





SIMATIC ET 200iSP also offers SIL3 rated fail-safe capable I/O modules which are suitable for Zone 1 hazardous area. This makes it possible to handle standard and failsafe communications on one bus with PROFISAFE.

Some of the main operational benefits of SIMATIC ET 200iSP:

- Elimination of complicated, expensive and space-consuming marshalling effort.
- 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 i.e. 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 simple, reliable and cost effective solution to providing distributed I/O within Hazardous Area"
- **Gordon Fleming, KigTek**

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