

SAFE AND SECURE

High Integrity Pressure Protection Systems



www.sellacontrols.com

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Complete HIPPS Solutions...

HIPPS are considered an important layer of protection requiring the highest levels of Safety Integrity. HIPPS applications provide protection against over-pressure scenarios and are an ideal solution for asset protection where traditional pressure relief systems, such as relief valves and bursting discs, are impractical and environmental constraints are prohibitive.

HIPPS are primarily used when fault conditions or events are identified that could lead to the installation exceeding the original design parameters. The drivers for HIPPS applications can be safety, environmental or economic where they can be an enabling technology that contributes towards bringing viability to a marginal development.

SELLA CONTROLS' knowledge, experience and capabilities in the oil and gas industry helps to deliver a range of complete HIPPS solutions to the market. For over 30 years, **SELLA CONTROLS** has been actively involved in the design and delivery of HIPPS for surface, subsea and pipeline protection in both onshore and offshore applications.

Technical Offering:

- Functional Safety Lifecycle Support
- HIPPS Dossier development
- Diverse Logic Solvers Technologies Solid State or PES
- · Axial, ball and gate valves with pneumatic and hydraulic actuation
- Valve control panel with accumulator and HPU as options
- Pressure transmitters with interlocking manifolds or DB&B

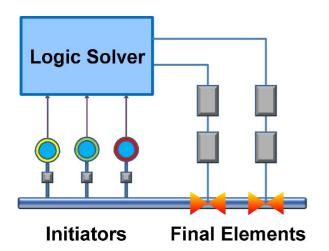


SELLA CONTROLS' HIPPS solution delivers the following benefits:

- Single source procurement for all elements of the HIPPS
- Qualified, experienced and certified engineering personnel
- · Leader in the supply of safety technology for over 40 years
- 30 years of HIPPS supply history
- · Understanding of corporate, IVB and regulator requirements
- Flexible and responsive
- Experts in IEC 61508 and IEC 61511

The logical choice

For over 40 years **SELLA CONTROLS** has been actively involved in the design and delivery of hundreds of control and safety systems to the oil and gas industry. This includes onshore and offshore applications. **SELLA CONTROLS'** expertise encompasses a wide range of engineering applications and provides bespoke solutions that are suitable for use up to and including Safety Integrity Level (SIL) 3 to IEC 61508. We bring considerable experience in the supply of safety related systems, including ESD, PSD, HIPPS, Burner Management and Fire & Gas systems.



SELLA CONTROLS is a founding member of the 61508 association and in 2001 was awarded the first SIRA CASS certificate for Functional Safety Management. An accreditation it has retained ever since. Our TUV certified Functional Safety Engineers and Experts provide safety related systems and Functional Safety services to a wide variety of clients across multiple industry sectors.

SELLA CONTROLS has certified management systems in accordance with the requirements of BS EN ISO 9001:2008.



SOLID STATE BASED SYSTEMS

For topside and onshore HIPPS applications **SELLA CONTROLS** offers the HIMA solid state Planar4 system. Based on proven fail-safe technology, the Planar4 system delivers solutions that are an ideal combination of maximum level of safety that can be achieved technically, absolute reliability and a minimum of lifecycle costs.

Benefits:

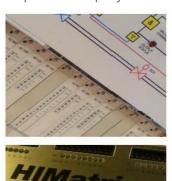
- All modules certified, up to SIL4 according to IEC 61508
- There is scalable redundancy to increase process availability
- Integrated diagnostics offering fast and explicit location of faults and simple replacement of faulty modules without interrupting system operation
- Remote Diagnostics via communication module
- Diverse technology from other protection layers
- Availability of >99.99%.

PES BASED SYSTEMS

SELLA CONTROLS also offers alternative PES based technologies for HIPPS applications. These are available for Subsea applications using the unique SIL 3 rated HIMA HIMatrix PES.

For larger topside or on-shore applications, other PES systems can be specified.

All Technologies and products used by **SELLA CONTROLS** in HIPPS applications are appropriately certified to IEC 61508 by a reputable third party certification authority.











SELLA CONTROLS brings over 40 years of experience and covers a huge range of references for safety related projects. The company is well placed to offer customers the confidence that their project objectives will be met, on time and within budget.

SELLA CONTROLS has supplied products and applications worldwide to all major contractors and operators.

These are some of the specific examples where **SELLA CONTROLS** has provided HIPPS solutions:

- Zakum, Abu Dhabi
- · Ornmen Lange, Norway
- · Karsto, Norway
- · Talisman, North Sea
- · Pearl LNG, Qatar
- Dragon LNG, South Wales
- · Hammerfest, Norway
- LNG Plant, Peru
- · Aldbrough gas storage, UK
- · Brae B platform, North Sea
- B193 field, India



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