# Always the right solution

The first TÜV-approved safety system in the world was developed by HIMA. This was followed by a whole series of further milestones. Based on this same world-renowned safety technology HIMA now offers its various systems for a range of requirements - the foundation for safe AND economic solutions.



#### **HIMax**<sup>®</sup>

HIMax® is the first safety system designed to provide uninterrupted system operation throughout the entire life of the plant, while maximizing plant availability, productivity and safety. It is based on HIMA's revolutionary nonstop XMR® technology.



The safety-related controllers and remote I/O modules of the HIMatrix F series were developed for applications with just a few I/O points and especially for networked and time-critical applications. HIMatrix can be used in Hazardous Area Zone 2 applications.



### **HIQuad**

Maximum safety, scalable availability, highest costefficiency: since their launch, the H41q/H51q systems have become THE established standard for safe AND economical solutions in the processing industry.



### Planar4

Planar4 is the only safety system in the world which can be used up to SIL4 in accordance with IEC 61508.
Planar4 is the system of choice for automation processes involving extremely high risks to people, machines and the environment.



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SAFETY NONSTOP





For a detailed list of all subsidiaries and agencies, refer to: www.hima.com/contact











# Safety Nonstop for all industries



#### Maximum Safety. Maximum Availability.

High-availability HIMA solutions guarantee safety and uninterrupted operation of all safety-critical applications. Our systems have been integrated thousands of times into all types of automation environments and DCSs. All solutions comply with the latest international and local safety standards, including IEC 61508/11, the Australia Standards AS61508, AS61511. AS3814, and are suitable for SIL 3 or even SIL 4 applications.

- Chemical
- Petrochemical
- Fertiliser Plants
- Refineries
- Mineral Processing Plants/Onshore and offshore facilities and platforms
- Pipelines, tank farms and gas storage facilities
- Power Plants

Our range of application solutions includes Emergency shutdown systems (ESD), Burner management systems (BMS), Fire and gas systems (F&G), High-integrity protection systems (HIPS), Turbo machinery control (TMC), Burner Control Systems (BCS) and Pipeline automation and protection.



Previously, safety solutions for the rail sector have usually relied on special proprietary technology. The future, however, belongs to modern COTS (commercial off-the-shelf) solutions, which offer clear cost benefits across the entire lifecycle and greater flexibility.

All HIMA solutions are based on proven HIMA safety controllers, featuring intuitive programming and the capacity to easily be networked and integrated with cross-manufacturer communication interfaces. The result: HIMA solutions are always a perfect fit in any technical environment, whether it involves a conversion project or new investment.

- Signalling
- Interlocking
- Railway Crossings
- Rolling Stock



# Mine Site Safety Solutions

HIMA can help you to maximise safety and profitability for your mining operation. Over the past 40 years, we have amassed unrivalled experience providing tailored safety solutions to mining and process plants throughout the world. Our personnel are the most highly experienced and qualified safety engineers and consultants to be found anywhere in the world. Whether your problem requires an 'off the shelf' controller or a totally unique solution tailored for your specific needs -HIMA has the answer.

- Conveyor Belt Safety Solutions
- DozSafeTM designed to safeguard bulldozers working on coal stockpiles
- Mine Winders
- SmartSafeTM Solutions advanced applications designed to address specific hazards in mining and materials handling



### Heading into the Future with Safe Logistics

A single failure in a logistics system can have severe consequences for the entire material and goods flow. HIMA technology is proven in many safety-critical applications that must meet requirements in accordance with PL e (ISO 13849) and SIL 3 (IEC 62061). HIMA applications engineers create comprehensive safety solutions for a variety of applications:

- Material Handling Systems
- Conveyor Belts in industrial production
- Baggage Handling Systems at airports
- Crane Applications & Lifting equipment
- Lifts

Modularity, flexible network and integration options enable optimum acquisition costs. Our proven safety technology ensures reliability and low operating costs.

# Development of a safety plan SIL assessment **HAZOP** Analysis Specification and procedures Concept design Development of FSM Specific training courses on basic and detail engineering On-site support for decommissioning, removal HIMA or plant relocation Specific training courses **LIFECYCLE** On-site support 24-hour hotline 24-hour on-call service 5. Operation & 24-hour spare parts service Specific training courses Maintenance

HIMA SAFETY LIFECYCLE SERVICES

Basic and detail engineering SIL verification DCS integration Inspection and factory acceptance test (FAT) Specific training courses

> and testing Commissioning DCS integration Specific training courses

System installation

Functional tests under operating conditions Support during site acceptance test (SAT) Support during the test phase including modifications

Obsolescence Management Plan 24-hour hotline, 24-hour on-call service, 24-hour spare parts service Spare Parts Management On-site support

Maintenance **Preventive Maintenance Visits** Specific training courses

## HIMA Consulting

HIMA Consulting is the specialist safety, risk and engineering consultancy of HIMA. We have a broad range of experience gained in the power generation, mining, oil & gas, process, transport and related industries. The services of HIMA Consulting include all aspects of:

- Functional safety
- Machinery safety
- Process safety
- Reliability
- Cyber security and
- Assisting companies achieve regulatory compliance

Our highly specialised consultants & engineers have a practical focus and come from a wide range of industries including automotive, automation & communications, process, mining, machinery safety, defence, research, nuclear, oil & gas and aerospace. Time spent analysing the safety-related systems and safety loops should be seen as an investment as it ensures that the

most cost effective solutions are designed into the project from the outset. Often low CAPEX options offered by contractors incur a significant penalty in ongoing maintenance and testing. HIMA Consulting has the experience to identify such problems and ensure your lifecycle costs are optimised. We can assist you with aligning your processes with the relevant functional safety standards and help document safety lifecycle activities, allowing you to demonstrate due diligence and discharge your duties under the legislation. We can perform functional safety audits and assessments both during projects and periodically to ensure that you maintain the integrity of your safety systems and achieve an asset that is functionally safe. Our early involvement releases you to focus on what you do best with the peace of mind of having a true safety specialist as your safety partner.

We also provide in-house and public training courses on all aspects of IEC 61508, IEC 61511 including TÜV Functional Safety Training courses.

# Benefit from these advantages:

- Compliance with the latest standards including IEC 61511, IEC 61508
- Considerable reduction in planning and implementation errors and their negative effects on schedules and budgets
- Reduction of insurance premiums by up to 20 %
- No underspending on protection ensuring that the required risk reduction is achieved
- No overspending on protection resulting in optimised capital costs
- High productivity, product quality and plant availability
- Reduced OPEX, e.g., thanks to optimised maintenance costs

## References

#### **End users**

Santos, Rio Tinto Alcan, BHPB Petroleum, Woodside Petroleum, Alcoa of Australia, Shell, Total, Exxon Mobil, Conoco Philips, Bluescope Steel, BASF, Bayer, BP, Chevron, OMV

#### Proiects

Santos ACE, Alcan Gove G3, Woodside TCSU, Shell Pohokura, Ravensthorpe Nickel, QAL Calciners & Boilers, Bluescope Steel Plant Upgrades, Wesfarmers LPG, HIsmelt, Petronas Puteri, JVPC Rang Dong, KNOC Rong Doi, Unocal North Palin, Alinta/Alcoa Cogen, Arrow Kogan North CSM, Telfer Mining Turbines, Conoco Philips Darwin LNG, OMV Sawan, BHP Zamzama



HIMA is the world's leading independent designer of automated safety solutions used in the process industry. Over the past 40 years, more than 35,000 HIMA systems have been installed worldwide to protect the assets of the world's major oil, gas and processing companies.

In the fields of rail, logistics and machine safety, HIMA solutions are leading the way to increased safety and profitability. You'll find HIMA solutions in more than 80 countries.

What makes HIMA solutions unique is the combination of maximum safety and maximum availability - or, as we call it, "Safety. Nonstop." That's because only with safe, uninterrupted operation, our customers can achieve their business aims.

See also our corporate video: Technology alone cannot ensure safety. Responsibilities for safety cannot be delegated.

