Easy to install

*intrinsically safe solutions with full SIL assessment*

- comply with the IEC 61511 site standard
Your partner **for I.S.**

**Count on us for product safety and reliability**

Since 1974, PR electronics has been the trusted intrinsic safety (I.S.) partner for the process and factory automation industry. Some of the world’s biggest brands are among our long-term customers. Our diverse portfolio of I.S. signal conditioning products sets technological, reliability and safety standards. With us as your partner, you will be able to solve even the most complex signal conditioning challenges thanks to **PERFORMANCE MADE SMARTER.**

At PR electronics our goal is to help you to achieve optimal success by providing:

- The highest signal integrity from your measurement point to control system.
- Maximum uptime based on our Install and Forget® philosophy and day-to-day delivery.
- Easy, cost-effective deployment and monitoring with intuitive communication interfaces.
- Site standard devices, easily programmed to suit your specific application.

**Full SIL assessment**

We don’t take any shortcuts when it comes to safety in hazardous areas. PR pioneered compliance to IEC 61508 standards, and with our comprehensive range of DIN and power rail-mounted analog and digital I.S. interfaces, you can rest assured that you will easily meet IEC 61511 site standards. Our strong expertise in functional safety and agile design processes give us a strategic advantage when designing devices that meet SIL requirements. Many of our intrinsically safe SIL units are multifunctional, allowing a few units to be used in a wide range of applications. Plus, all of our devices can be installed in the safe area or in zone 2/div. 2.
Your partner in achieving functional safety

Experience our full range of I.S. devices for industrial signal conditioning and process control

The PR 9000 series offers you the widest range of multifunctional I.S. interfaces with the fewest variants. Each product is easy to use and service and, of course, fully SIL compliant. This makes them ideal in more critical industries such as chemical, oil and gas, pharmaceutical and energy. They are intuitive, easy to configure using the detachable communication interfaces.

• Fully IEC 61508 certified and implementable within SIL 2 and SIL 3 functional safety loops
• Interface and handle AI, AO, DI, and DO signals coming from or going to hazardous I.S. areas
• Multifunctional I.S. barriers, isolators and converters
• I.S. devices for industrial signal conditioning and process control
• Analog, digital and HART signals
• Three different mounting solutions for easy commissioning - standard DIN rail, power rail, or use our backplane solution
• Supported by highly educated I.S. specialists in all countries where PR electronics is represented

Install & Forget®
All PR devices are individually designed and validated to exceed the most demanding failure rate assessments. In addition we offer a 5-year warranty on all our products. It’s all part of our Install & Forget® philosophy.
9106B HART TRANSPARENT REPEATER
Flexible I/O reduces spare parts inventory.
- 1 or 2-channel isolated signal repeater barrier (2.6 kVAC)
- Input accepts 2 wire SMART transmitters and current sources mounted in the hazardous area
- Fast signal response time of < 5 ms
- Outputs 4...20 mA – sink or source mode
- Performs signal splitter function - 1 in and 2 out
- SIL 2/SIL 3 Full Assessment and certified in accordance with IEC 61508
Examples of application areas:
- Chemical: HART based temp. measurement
- Marine: HART based radar tank level systems
- Energy: Biomass storage pressure measurement

9107B HART TRANSPARENT DRIVER
Fast response and process reaction.
- 1 or 2-channel isolated current driver barrier (2.6 kVAC)
- Operation and drive control of I/P converters, valves and indicators mounted in the hazardous area
- Fast signal response time of < 5 ms
- High current output load of up to 725 ohms
- Output line fault detection via status relay
- SIL 2 Full Assessment and certified in accordance with IEC 61508
Examples of application areas:
- Oil & Gas: Drill cabin controls
- Marine: Discharge valve driving

9113B TEMPERATURE / mA CONVERTER
Easy and fast configuration.
- 1 or 2-channel isolated converter barrier (2.6 kVAC)
- Measures RTD, TC, and mA signals coming from the hazardous area
- Conversion and scaling of temperature (Pt, Ni and TC) and active current signals
- Outputs 4...20 mA – sink or source mode
- SIL 2 Full Assessment and certified in accordance with IEC 61508
Examples of application areas:
- Oil & Gas: Temp. applications requiring zone 2 & SIL 2
- Pharmaceutical: Temp. measurement in sterilization vacuum processes
- Marine: I.S. isolation and local monitoring of gas compressor temp

9116B UNIVERSAL CONVERTER W/ LIMIT SWITCH
Universal solution for nearly all applications.
- 1-channel isolated universal converter barrier (2.6 kVAC)
- Measures RTD, TC, and mA signals coming from the hazardous area
- Conversion and scaling of temperature (Pt, Ni and TC), ohm, potentiometer and active and passive current signals
- Outputs 4...20 mA – sink or source mode – including relay output
- Output relay for set point, window, signal error or power failure action
- SIL 2 Full Assessment and certified in accordance with IEC 61508
Examples of application areas:
- Chemical: Gas leakage measurement
- Gas storage: Storage pressure measurement
- Marine: Valve position control

9202B PULSE ISOLATOR
Fully isolated and independent 2-channel device.
- 1 or 2-channel isolated switch amplifier barrier (2.6 kVAC)
- Measures dry contact or NAMUR sensors mounted in the hazardous area
- Line fault / cable error detection
- Relay or transistor/opto output
- SIL 2 Full Assessment and certified in accordance with IEC 61508
Examples of application areas:
- Energy: Biomass storage
- Cement factories: Explosion duct mill inlet vents position
- Water & Wastewater: I.S. area lift station level indication

9203B SOLENOID/ALARM DRIVER
Unique universal Ex driver for solenoids, acoustic alarms and LEDs.
- Isolated SOLENOID / ALARM DRIVER barrier (2.6 kVAC)
- ON/OFF I.S. driver for solenoids, LEDs and audible alarms
- 1 or 2 channels in a low power version (35 mA)
- 1 channel version in high power version (60 mA)
- Logic signal input – Contact, NPN or PNP
- SIL 2 Full Assessment and certified in accordance with IEC 61508
Examples of application areas:
- Chemical: Reactor safety on/off valve
- Marine: Valve Remote Control system

9410 POWER CONTROL UNIT
Reduces wiring costs. Approved for installation in Ex zone 2.
- Distributes 24 VDC supply voltage to the power rail
- Optional redundant supply for the power rail
- Detects errors from devices mounted on a power rail
- Transmits a collective alarm to the control system

9421 POWER SUPPLY
- Input: 85...132 VAC or 187...264 VAC
- Output 24 VDC 180 W / 120 W (zone 2)
Fast, easy commissioning for major DCS systems - in a compact design
The PR backplane is the latest addition to our I.S. interface range. It greatly simplifies mounting and wiring in large industrial process installations and seamlessly integrates with standard DCS systems.

The unique design offers:
- Robust design - vibration and shock tested according to IEC 61132-2
- Approved for zone 2 applications
- Easy snap on/off feature for device replacement
- Choice of 8 or 16 I/O module slot configurations
- Compatibility with all PR 9000 products
- Optimized dimensions for higher channel density in your cabinet

Variety of mounting options
The backplane offers easy, safe module installation and removal (hotswap) and can be installed vertically or horizontally on DIN rail, or a wall/bulkhead. The compact design allows you to optimize and maximize cabinet space.

Standard solution
The backplane seamlessly integrates with standard DCS systems.

Get more information online
Learn more by visiting prelectronics.com/backplane, where you will also find supporting I/O cards/DCS manufacturers and a selection guide.

**COMMUNICATION INTERFACES**

Local or remote access to your process data:

- **4501** - LOI (Local Operator Interface) connectivity on your new and existing PR 4000 and 9000 devices to locally monitor process values, device configuration and perform signal simulation.

- **4511** - Communication enabler. Get easy, remote access to your process values - by enabling existing and future PR 4000 and 9000 devices for digital communication.

- **4801** - Industrial Ethernet and wireless access via the PR gateway.

- **PPS** - PR Process Supervisor - monitoring of process values, device configuration and signal simulation. For Windows, iOS, Android, and Windows Mobile.
BENEFIT TODAY FROM

PERFORMANCE MADE SMARTER

PR electronics is the leading technology company specialized in making industrial process control safer, more reliable and more efficient. Since 1974, we have been dedicated to perfecting our core competence of innovating high-precision technology with low power consumption. This dedication continues to set new standards for products communicating, monitoring and connecting our customers’ process measurement points to their process control systems.

Our innovative, patented technologies are derived from our extensive R&D facilities and from having an in-depth understanding of our customers’ needs and processes. We are guided by principles of simplicity, focus, courage and excellence, enabling some of the world’s greatest companies to achieve PERFORMANCE MADE SMARTER.