

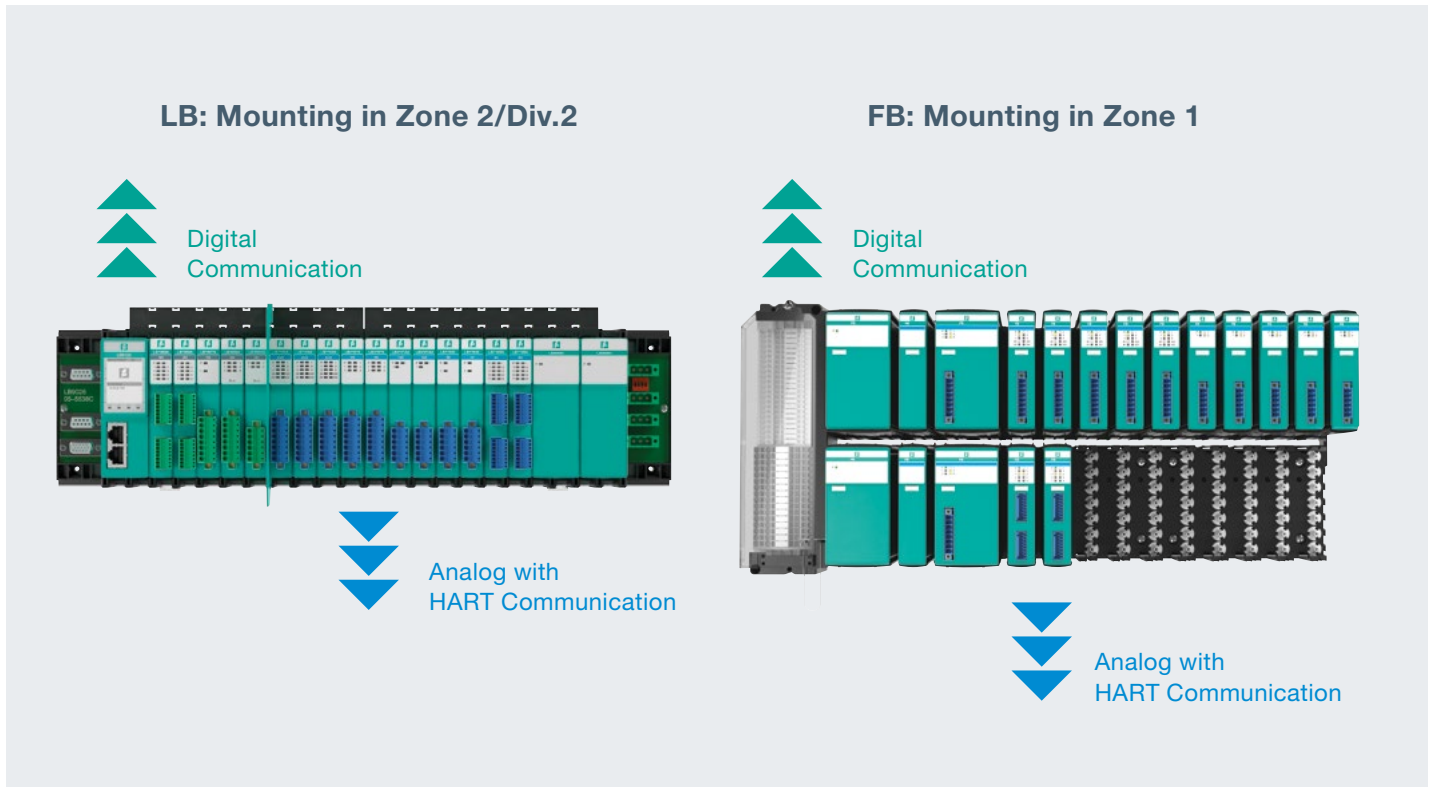
Remote I/O Modules for the Efficient Modernization of Control Systems

Migrating to Digital Communication without Replacing Devices

The Application

The measurement and control technology will be replaced once or twice during the service life of a process plant, giving users the opportunity to replace the control technology with new, cutting-edge devices. For example, a bus system can be installed in place of conventional, one-to-one wiring that is time-consuming to maintain. Digital communication improves plant operating efficiency by making concrete use of the higher volume of information available, transferring data accurately, and enabling remote configuration and diagnostics. Investments in existing analog field devices are protected and put to best use.





The Goal

Restructuring should be as quick, smooth, and cost-effective as possible. The downtime should be as short as possible. Last but not least, it is important to maintain well-functioning field devices so they can continue to be used in the process. The challenge is integrating many different devices with analog and discrete sensors and actuators into a new communication infrastructure and connecting them to the new control system.

The Solution

The remote I/O systems from Pepperl+Fuchs bridge the gap between the existing technology framework and the new control system. They are available as LB and FB systems for measurement and control engineering tasks in every hazardous area, all zones or divisions. These systems establish a digital connection via various protocols for conventional sensors and actuators, such as 4 ... 20 mA-devices, temperature and NAMUR sensors, and solenoid valves.

The I/O modules of the remote I/O stations can be easily plugged into a backplane, even during ongoing operation. They offer economical energy management and low power dissipation. Modules with intrinsically safe and non-intrinsically safe outputs can be operated side by side. You can use single-channel modules for single-loop integrity, multi-channel modules for high packing density, or a combination of both.

The Benefits

Remote I/O technology reduces the investment costs associated with modernizing plants by: Retaining the existing technology framework of the field devices; outdoor installation, usually in place of the subdistributor; retaining field wiring; and offering routing tailored to the signals, which also means that less space is required. Being able to retrofit individual modules makes carrying out small modifications and extensions inexpensive. The remote I/O systems come certified, pre-wired, and ready to connect, thus minimizing the time and money spent on installing and registering the products on-site.

At a Glance

- Digitalization without replacing field devices
- Modular design, various combination possibilities
- Quick and easy installation
- Mounting in Zone 1, Zone 2 and Division 2
- A comprehensive portfolio for a wide range of applications