

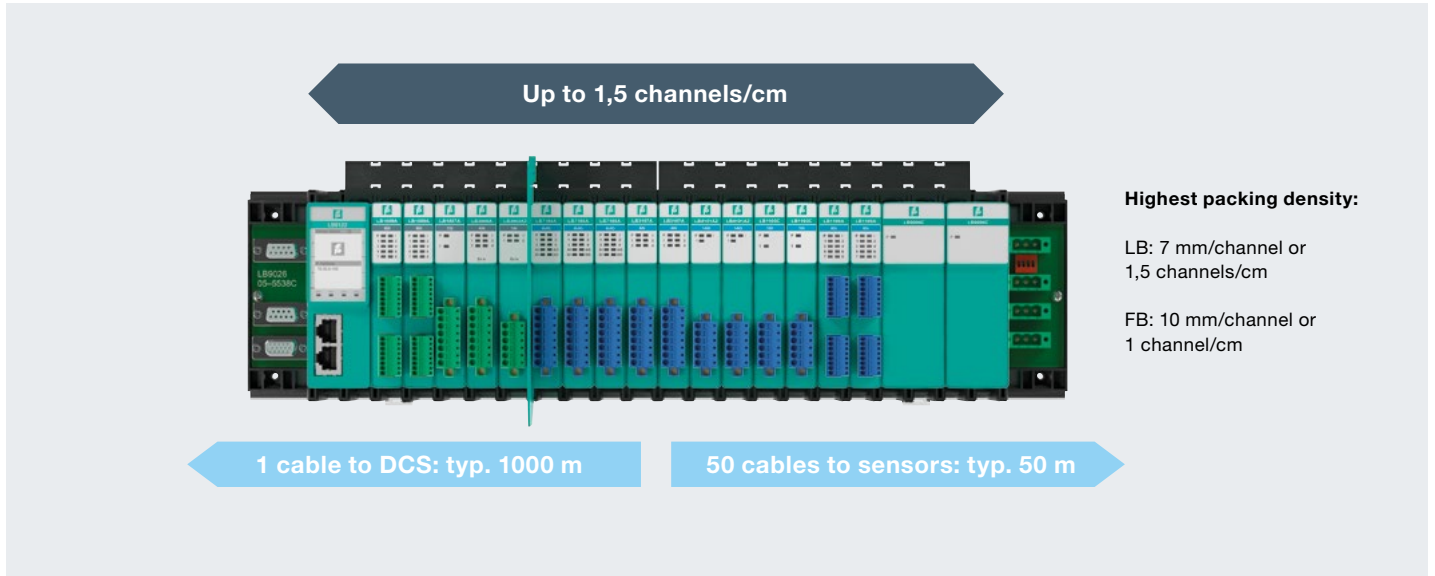
# Space-Saving Extension for Existing Plants

Slim LB/FB Remote I/O System  
Suitable Even for Confined Spaces

## At a Glance:

- Plant expansion despite limited space
- Integration of additional components into existing architecture
- Mounting near instruments
- Continued use of existing cables
- Minimal costs and installation work
- Especially suitable for hazardous areas





Plant extension—Save space and effort on installation

### The Application

There are many reasons for adding additional measuring points to existing plants, such as expanding production, optimizing process control and quality control, environmental protection measures, and new regulatory requirements. Modular remote I/O systems can be used to transfer process data, especially from hazardous areas. They connect sensors and actuators to the control system via digital communication. However, when upgrading or retrofitting signals, the available space is often a limiting factor.

### The Goal

If additional sensors are required, the corresponding field devices must be installed. Even if there is little space available, the structure of the plant need not be modified when expanding the plant. It should be possible to integrate additional components into the existing architecture. The addition of new cable trays should be avoided. Another goal may be to capture additional data from existing analog sensors and actuators via digital communication.

### The Solution

The LB/FB remote I/O systems from Pepperl+Fuchs consist of the slimmest modules available on the market. They allow additional sensors and actuators to be integrated into the systems while occupying minimal space. They make analog field devices compatible with digital communication, allowing operators to reap all the benefits of digital communication. Existing cables are retained and continue to be used.

The LB/FB remote I/O systems have a modular design and can be installed in the immediate vicinity of the sensors, even in Zones 1 and 2. The systems consist of a backplane, a power supply, I/O modules, and a gateway. The LB remote I/O system is suitable for non-hazardous areas and for Zone 2/Div. 2. The FB remote I/O system is available for Zone 1.

The LB/FB remote I/O systems from Pepperl+Fuchs offer the highest channel density and the largest number of channels per system. Up to 80 analog or 184 digital channels can be connected per station.

### The Benefits

Pepperl+Fuchs remote I/O systems facilitate the highest number of signals per switch cabinet. Wiring and distribution are straightforward and the switch cabinet requires minimal space. Since these devices are mounted in the field, marshalling cabinets are not required. Pepperl+Fuchs supplies ready-to-install solutions including pre-wiring that can be tested upon request before outbound delivery.

### Technical Features

- Modular design, signal mix, and bus connection can be freely selected and combined
- Largest selection of IO modules for each application
- Up to 80 analog or 184 digital channels per system
- Redundancy for power supply unit and com unit can be selected
- Emergency shutdown for DO and AO modules with SIL rating
- Freely selectable terminal technology (screw or spring terminals)
- Continuous high-performance HART communication
- Worldwide Ex approvals (ATEX, IECEx, UL, INMETRO, EAC)