# PLC Independent Safety Technology





## Relieves the Fieldbus



The use of Bihl+Wiedemann devices enables compact machinery design, since for example the space for decentralized control cabinet can be saved. Therefore the wiring effort required for doors with interlocks for example is significantly reduced.

The piercing technology greatly reduces time and effort compared with expensive and cumbersome connector assembly.

- The field installation concept is always the same and reduces the fieldbus slaves **greater overview**
- Safety Gateways eliminate the need for expensive measuring instruments thanks to the integrated measuring technology
- Increased performance of the fieldbus and simple expansion of the field modules

### $^{\mid}$ The Right Protocol for any Controller $_{\mid}$



### <sup>1</sup> One of the Easiest Installation Concepts Worldwide

With conventional parallel wiring, at least four lines per E-STOP are necessary to achieve PLe, plus additional two lines for the lighting. In case of other safety sensors even more lines might be needed.

Instead, Bihl+Wiedemann devices can send up to 62 safe signals plus the supply voltage over just one 2-conductor cable.

#### The result:

- Simplified wiring cost savings
- Makes pre-assembly possible
- Much less error-prone than conventional parallel wiring

#### Wiring advantages

- Unshielded 2-conductor cable
- Data and power on the same cable
- Piercing technology makes installation simple
- Up to 62 safety slaves

#### Free topology choice

- Ring, tree, star or linear structures
- Simple expansion







Tree structure

Star structure

# Simple Installation Technology

- AS-Interface features a clever piercing technology using a profiled cable. Simply insert the cable, tighten down, and you are done. Contact pins always penetrate the profiled cable vertically to guarantee perfect contacting.
- Optimal contacting provided by:
  - Vertical contacting contact security
  - 4 or 6 pins per cable and 2 or 3 pins per conductor



Insert cable, tighten down - finished

### Free Selection of Sensors and Actuators



If for example multiple light barriers from manufacturer X are used for optoelectronic protective devices in combination with safety doors with interlocks from manufacturer Y, conventional installation requires that all the components be wired in the control cabinet.

With the active distributors from Bihl+Wiedemann all sensors and actuators can be easily integrated into the network **regardless of manufacturer**:

- Safety switches
- Safety sensors
- Guard doors
- Optoelectronic protective devices



The active distributors from Bihl+Wiedemann allow sensors and actuators to be connected in the field directly where they are used. Such

flexible use offers many advantages from the construction site to the continuous flow production.

# Simple Control – Commissioning Regardless of the Controller



The safety system can be commissioned regardless of the higher level controller:

- No connector assembly Plug and Play down to the sensor
- Physical and logical diagnostics integrated
- No additional measuring devices required

### Active Distributor Safety



#### Safe input modules

- 1 × 2 channel safe input (SIL3, PLe) manufacturer-neutral
  - Optoelectronic protective devices or
  - Floating contacts



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### THE AS-INTERFACE MASTERS

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