

## Passive Safety up to SIL3/PLe – A Cost-effective Alternative

Passive safety is becoming increasingly important as a **cost-effective alternative for achieving machine safety**. With conventional functional safety solutions, one must have a **safe – and therefore expensive – output for each actuator**. This allows all actuators to be safely switched off individually.

In practice, often only whole **groups of actuators need to be safely switched off at the same time**. This enables passive safety with **only one safe output per group**. All outputs can also be additionally switched on/off and controlled individually for operation purposes.

With ASi, the supply principle of passive safety is achieved by laying the **profile cables separately**. This **excludes** the possibility of **external power supply to the actuators** when the supply is switched off.

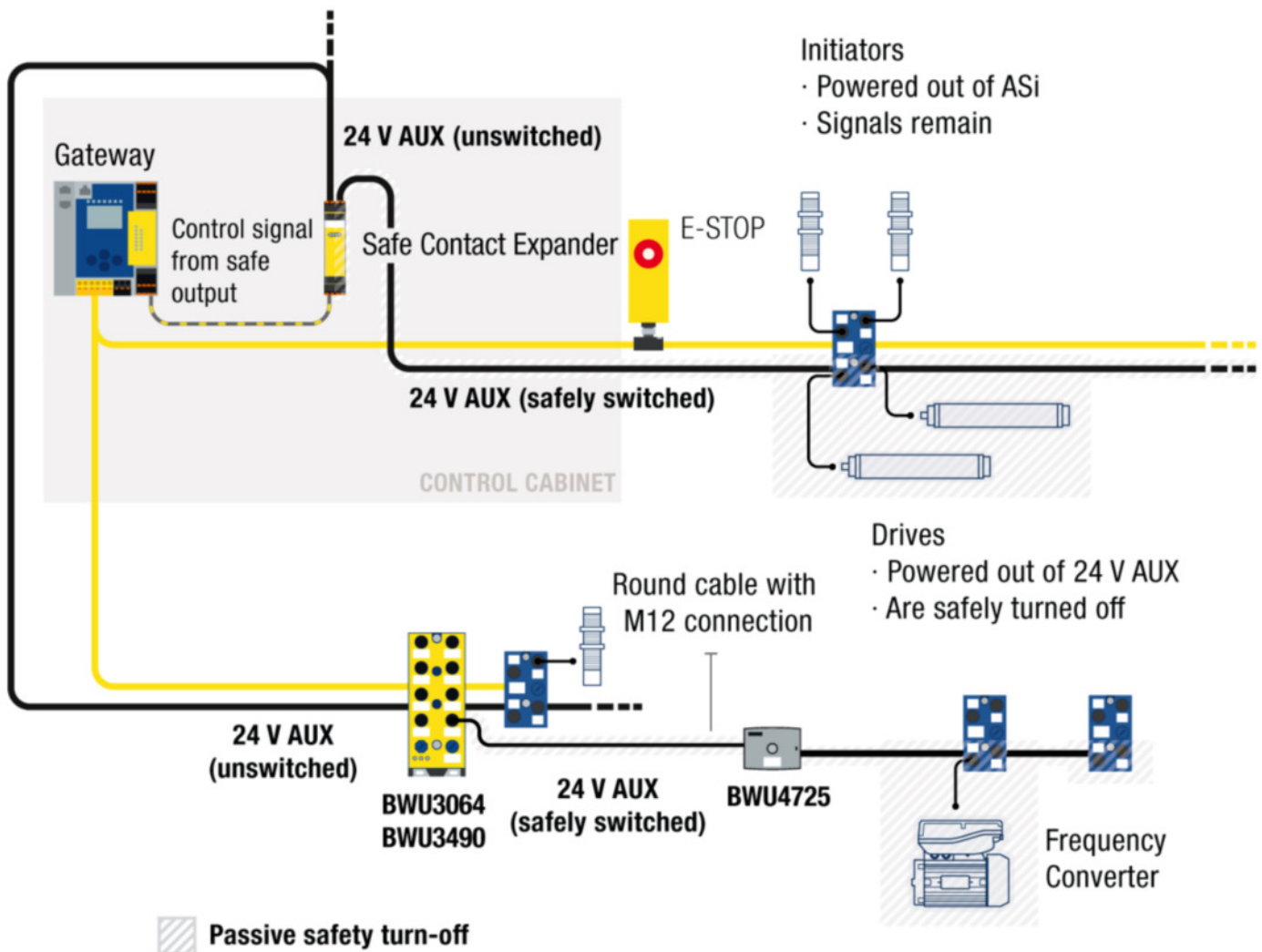


Fig.: Application examples for passive safety

## Advantages of Passive Safety with Bihl+Wiedemann

- **Safety up to SIL3/PLe:** The yellow ASi profile cable and the black profile cable for auxiliary power can easily be laid separately – even in the modules. Connected actuators supplied through AUX are therefore safely switched off when the auxiliary power is switched off.
- **Lower hardware costs:** Safety-related disconnection of actuator groups can be achieved with just one safe output.
- **Sensor systems can always be read off:** The yellow ASi cable provides the sensors with communication and power even in the event of a switch-off.
- **Efficient power supply:** The black profile cable transmits 16 A or 20 A – thus significantly more power than typical M12 round cable solutions.
- **Low wiring costs:** Thanks to profile cables and piercing technology, ASi reduces wiring costs by up to

68 percent compared to other fieldbus systems.

For more information on passive safety with Bihl+Wiedemann, please visit our website.

## Questions about our products and solutions?

We would be happy to assist you.

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