MESSAGES NEED A MESSENGER

FLEXI LOOP – THE FLEXIBLE MESSENGER

These days, no-one can afford to exchange information at snail-mail pace. What is needed are flexible and swift couriers who take messages from point A to point B without a hitch.

For safe cascading, the information must be transmitted from the safety sensors and safety switches to the safety controller. The Flexi Loop performs extremely well in its role as the messenger.

- Cascading of up to 32 different safety switches and safety sensors with semiconductor outputs monitored
- Compatible with sensors from all manufacturers
- In compliance with most stringent safety standards (up to Performance Level PL e)
- Transmission of diagnostics information without avoiding the danger posed by error masking
- Integrated standard input and output as well as power supply to sensors
- Saves costs thanks to minimized wiring work
- Easy upgrading of existing machines
- Simple calculation of the performance levels saves time since the Flexi Loop node monitors each sensor individually
- Integration and communication with superordinate safety controller
- Ability to be used over long distances increases application flexibility

8011770/2015-05-08

Plug and play

Make use of the time that you save

The process of commissioning a machine with the Flexi Loop and SICK safety sensors and safety switches is quick, easy, and efficient.

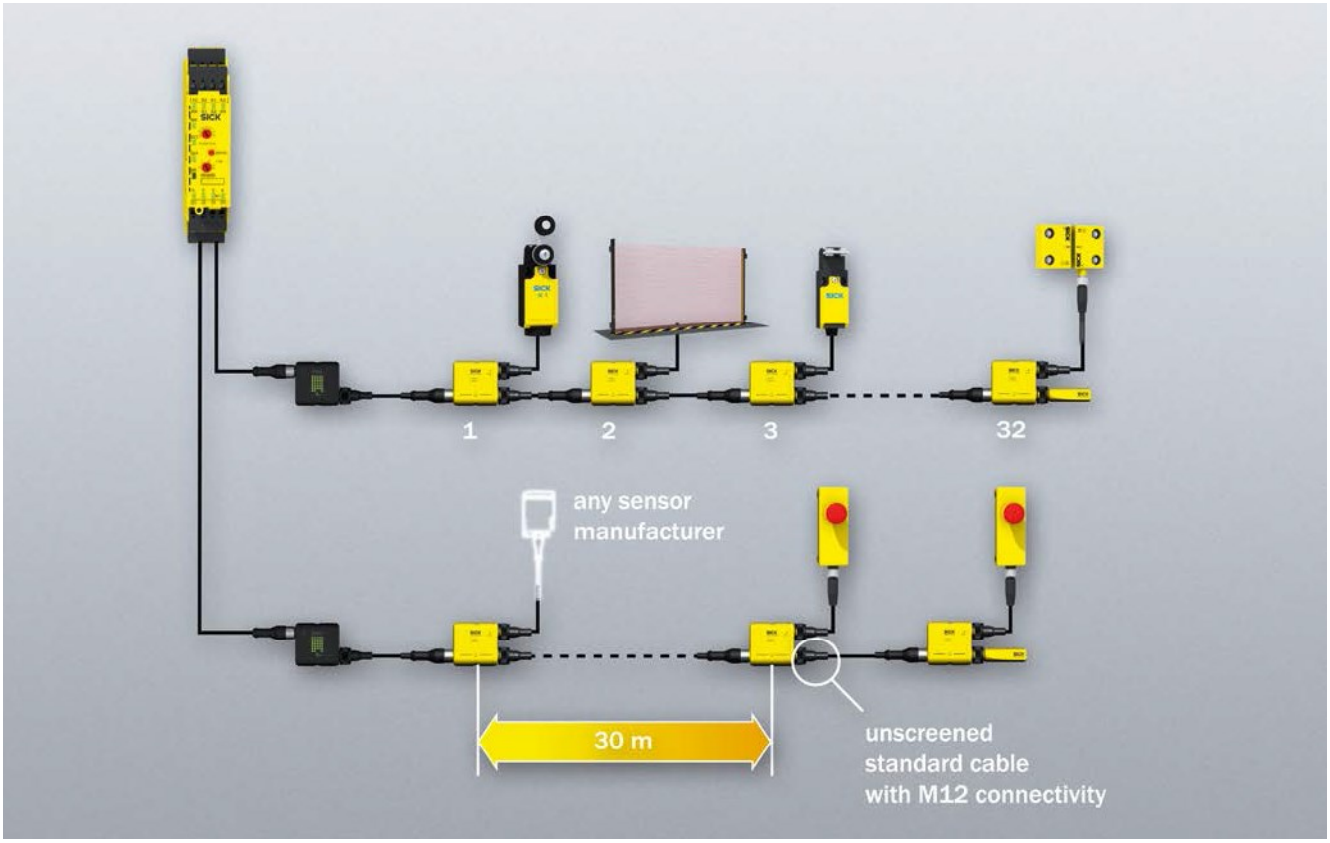
Plug and play when connecting the sensors and when wiring the nodes. Industry-standard cables with M12 connectivity leave plenty of time to spare.

Individual node diagnostics

Flexi Loop points you in the right direction

The individual Flexi Loop nodes not only test themselves, they also indicate to the machine operator which direction they need to go in whenever a fault arises.

If an LED is constantly illuminated green, this means that the machine is running smoothly. If an LED is flashing, this means there is a fault at the following Flexi Loop node. At this node, the LED will be illuminated red.



Cascading of up to 32 safety sensors with the Flexi Loop.

FLEXI LOOP MEETS FLEXI CLASSIC – RENDEZVOUS IN A LITTLE BLACK DRESS

8011770/2015-05-08

FLEXI LOOP MASTER NODE – THE SMART INTERPRETER

When the Flexi Loop and Flexi Classic meet, there is initially radio silence, because they do not speak the same language. Fortunately, the Flexi Loop master node speaks both their languages, and can therefore act as an interpreter. It is available in two models: the basic version (MSTR1) and the version with an additional IO-Link interface (MSTR2).

Two operating modes plus IO-Link connection

Commissioning

If the Flexi Classic is not active or connected, the Flexi Loop master node performs the loop communication. All integrated components in the cascade can be tested to see if they are ready for operation. In this mode, however, the master node does not determine any safety information.

Safe mode

Before the Flexi Loop master node can function in safe mode, it must learn how many Flexi Loop nodes are connected to the cascade by way of a simple teaching procedure. This is done using a single test signal from the Flexi Classic. After that, it transmits relevant safety information from the cascade, and sends the corresponding safety signals back to the safety controller. This information can include dynamic faults such as the discrepancy errors or static errors such as sensor status, cross-circuit, line rupture, or incorrect node count.

IO-Link for even more efficiency

The IO-Link interface allows a live connection to be made with the process control system, which also controls the standard inputs and outputs of the Flexi Loop nodes. The advantage here is that the types of Flexi Loop nodes (EMSS or OSSD, 5-pin or 8-pin) can be recognized and confirmed, even without a teaching procedure. The configuration of the Flexi Loop master node can also be adjusted in this way.