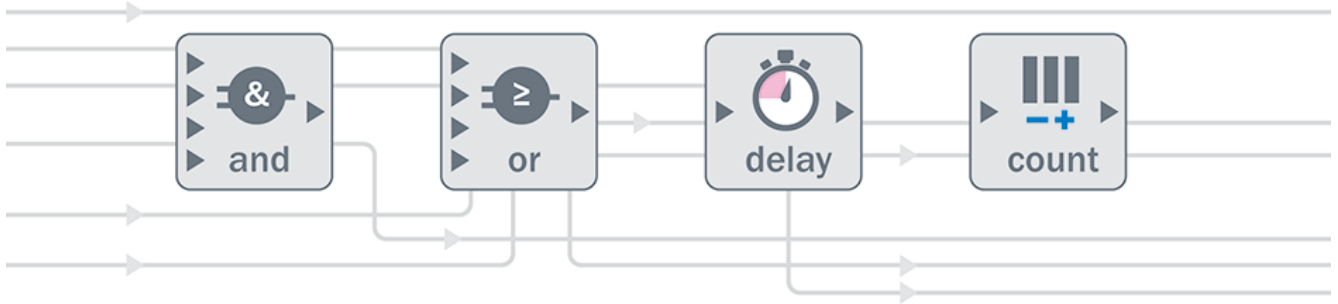# SIG100

The easy way of sensor integration

SICK
Sensor Intelligence.

Advantages

Drag & drop logic

A powerful logic editor integrated into SOPAS ET enables the creation of unique sensor systems. Visualize all connected signals and solve your application tasks quickly and easily with integrated logic gates, e.g., AND/OR gates, an inverter, time delays, or a counter. Simply drag and drop logic blocks and connection points to create your system. Access is established via the USB port on the device combined with the SOPAS ET software.

System configurations are easy and can be carried out by all kinds of user groups, as no programming knowledge is required.

Solve simple application tasks using binary switching signals from sensors or actuators without an additional controller.
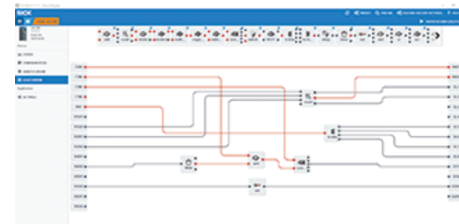
Logic editor: a graphical configuration environment to easily combine inputs (left side) via logic function (top bar) with outputs (right side).

With SIG100, the connected sensor or actuator signals can be efficiently combined and aggregated using the drag & drop function. This can easily be done without any additional software skills, which significantly reduces programming effort and saves time.

Reduce wiring and save costs

The SIG100 Sensor Integration Gateway reduces wiring effort by consolidating the individual standard input/output signals into a single IO-Link data stream. Up to 12 separate input or output signals can be consolidated via the six ports of the SIG100. IO-Link requires no special cabling. The tried-and-tested, unshielded three-wire industrial cables can still be used to connect sensors and actuators.

The binary sensors and actuators are connected to an IO-Link master using the standard 4-pin M12 male connector of the SIG100. This enables a uniform wiring concept ranging from fieldbus and IO-Link devices to standard input/output signals.

Installing the SIG100 is also very easy. Using a USB interface or IO-Link, users can read and change device parameters either via SOPAS ET or the control system software, enabling fast parameterization and commissioning of the SIG100 and thus saving time and resources.

A uniform wiring concept for all kinds of sensors.

IO-Link is a point-to-point communication protocol for connecting intelligent sensors and actuators within an automation network. It allows central access to information which was previously only available within the connected devices. Visualization and parameterization of IO-Link devices such as the SIG100 gateway is easy with SOPAS ET– the configuration software from SICK.

Advantages with IO-Link

SIG100 is an IO-Link hub (IO-Link device). It can be connected to any IO-Link master in order to access information from the connected devices as well as the aggregated system information which is created in the logic editor. IO-Link offers a lot of benefits, e.g. the automated storage of device parameters and unique device identification. An IO-Link device can be automatically identified via the device-specific and manufacturer-specific identifier to ensure that the correct device is used in the case of device replacement. The device parameters from a specific sensor can be automatically loaded onto a replacement device to ensure that the correct parameterization is in place after replacement – for fast and error-free commissioning.

As co-founder of IO-Link, SICK offers one of the broadest IO-Link portfolios on the market for numerous types of sensors with all kinds of detection technologies. The SIG100 gateway enables the quick and easy connection of binary sensors as well as the creation of compact sensor-actuator systems. Make use of SICK's extensive experience regarding all kinds of sensor principles as well as IO-Link technology.

Easy device replacement due to automated device identification: No specially trained personnel, additional auxiliary aids or instructions are required in order to reliably replace sensors when using IO-Link devices together with an IO-Link master.

Visualization and parameterization of sensors and Sensor Integration Gateways via SOPAS ET.

As co-founder of IO-Link, SICK offers one of the broadest IO-Link portfolios on the market. Make use of SICK's extensive experience regarding all kinds of sensor principles as well as IO-Link technology.

There are many advantages of an IO-Link system including standardized and reduced wiring, increased data availability, simple device replacement, and advanced diagnostic options.

Technical data overview

Supported products	Binary switching sensors
	Binary actuators
USB	
IO-Link	
Inputs/outputs	
S1-S6	6 ports.
	Pin2 and Pin4 can be customized as a digital input or digital output to enable the transmission of up to 12 digital input or output signals.
CONFIG	Port for configuration via USB with SOPAS ET (SOPAS ET can be downloaded for free from www.sick.com)
Enclosure rating	IP67

Product description

The SIG100 Sensor Integration Gateway is an IO-Link sensor hub which makes collecting and monitoring digital standard signals easier than ever. Logical decisions are made based on the user configuration, and the results are transmitted via IO-Link to any IO-Link master. Devices are parameterized quickly and easily via an integrated USB interface and the SOPAS ET graphical user interface. For various applications, a drag & drop logic editor enables the quick and easy creation of an autonomous sensor system which can be operated separately from the central controller (PLC).

At a glance

- Easy connection of binary sensors to any IO-Link master
- Six configurable ports; each has two binary inputs or outputs for connecting up to 12 standard I/Os
- Quick and easy configuration of an autonomous sensor system, which consists of binary inputs and outputs, via drag & drop logic links without an additional controller
- Reduced wiring effort and expense by consolidating individual sensor signals into a single IO-Link message

Your benefits

- Solution for complex application tasks by creating simple sensor systems using the logic editor integrated into SOPAS ET
- Uniform wiring concept via IO-Link for easy and transparent data integration
- Easy, intuitive parameterization via USB and the SOPAS ET graphical user interface

Fields of application

- Gateway for digital data collection in all areas of factory and logistics automation
- Creation of autonomous sensor systems consisting of binary sensors and actuators via drag & drop in the logic editor without an additional controller

Ordering information

Other models and accessories ➜ www.sick.com/SIG100

- **Further functions:** USB connection for easy configuration of the SIG100 Sensor Integration Gateway with SOPAS ET, the engineering tool from SICK, logic editor is available for easy configuration of logic functions
- **I/O connection:** 6 x M12, 5-pin female connector, A-coded

Connection CONFIG	Logic editor	Communication interface	Product category	Type	Part no.
1 x M8, 4-pin female connector, USB 2.0 (USB-A)	✓	USB, IO-Link	IO-Link Hub	SIG100-0A0111100	1089792

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is "Sensor Intelligence."

WORLDWIDE PRESENCE:

Contacts and other locations –**www.sick.com**

SICK AG | Waldkirch | Germany | www.sick.com

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