# Precision meets performance: MPS-G position sensor for grippers and miniature cylinders

**Waldkirch, November 2020 - With the MPS-G, SICK is presenting a compact, versatile, and intelligent position sensor for grippers and short stroke cylinders. Gripper and cylinder manufacturers benefit from one of the most space-saving housings on the market, which fits into all standard C-slots. The MPS-G from SICK comes in three product variants: As sensors with analog voltage output and as IO-Link sensors with graded diagnostic functions. Via IO-Link, the MPS-G also can also provide comprehensive diagnostic data including performance data from pneumatic drives or data for the condition monitoring of systems.**

Differentiating between different objects and gripping them safely – SICK is the first sensor manufacturer to offer a suitable position sensor for these requirements. Its magnetic position measuring system continuously detects the position of the fingers of pneumatic grippers or the piston position in short stroke cylinders using a direct, non-contact method. Although it is only 24 millimeters long, the sensor offers an active measuring range of 50 millimeters. This can be set individually via the remote control unit. This allows manufacturers of grippers, robot hands and compact cylinders to use the same sensor for actuators of different sizes as well as gripping and stroke paths. This reduces costs for procurement, stocking, construction, and service.

**Three variants**

With the MPS-G – the “G” stands for gripper – users can choose between three variants: A position sensor with 0-10 V analog output and smart IO-Link devices with up to three digital switching points and integrated actuator diagnosis and, optionally, with process data diagnostics as well. In addition to exact determination of the piston position, the user can also define up to 16 switching points individually via IO-Link. Reliable end position detection, exact gripper states, adjustable digital switching points, precise movement monitoring, positive gripping of objects of different sizes – the MPS-G is the right sensor solution for almost any requirements.

**One-of-a-kind integration and user-friendly design**

All three sensor variants do not differ in their design – they can be well-protected against damage by mounting and fastening them securely in the C-slots of all common gripper and cylinder makes on the market. A corresponding adapter is available for integration in T-slots. The measuring range and the digital switching points can also be taught in dynamically during commissioning or maintenance – by the sensor itself. This special advantage makes the MPS-G probably the most user-friendly magnetic position sensor on the market – simply insert it, fasten it, teach it and it is ready to go.

**Value-added functions ensure the best possible performance**

The two MPS-G variants with IO-Link provide graded, digital added value functions. The type for actuator diagnosis allows conclusions to be drawn about the gripper using the data on traversing speeds, cylinder travel, dwell times in end positions or magnetic field strengths. The variant for process data diagnostics collects additional data from the application and the operating environment. Information on position, vibration, temperature, and acceleration is available directly, i.e. without additional sensors. They make it possible to analyze the complete process.

*MPS-G\_0090393 / MPS-G\_0091820  
Caption: MPS-G from SICK – the precise position sensor for grippers and short stroke cylinders*

*MPS-G\_Application\_0074439 / MPS-G\_Application\_0090332  
Caption: MPS-G from SICK – the precise position sensor for grippers and short stroke cylinders*

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SICK is one of the world’s leading solutions providers for sensor-based applications in the industrial sector. Founded in 1946 by Dr.-Ing. e. h. Erwin Sick, the company with headquarters in Waldkirch im Breisgau near Freiburg ranks among the technological market leaders. With more than 50 subsidiaries and equity investments as well as numerous agencies, SICK maintains a presence around the globe. In the 2019 fiscal year, SICK had more than 10,000 employees worldwide and a group revenue of around EUR 1.8 billion. Additional information about SICK is available on the Internet at [http://www.sick.com](http://www.sick.com/)