



Position sensors

Hard on the outside, smart on the inside: predict downtime in advance



Magnetic and cylinder sensors



High machine uptime: signals wear when the sensing range decreases

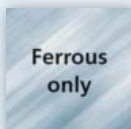
Preventive maintenance: detects the degree of soiling in the switching zone

Monitor the life of tools: integrated operating hours and switching cycles counter

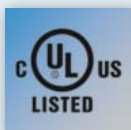
Fast application-specific switch point setting



Programmable timer function



Ferrous only



UL LISTED



IP 65
IP 67



IO-Link

Magnetic position sensor and condition monitoring in one housing

The new smart ifm sensor signals what would only become obvious when it's too late. Its high resolution allows the sensor to detect even tiny changes in the switching area. In addition to its position sensor functions, it also provides additional information for condition-based maintenance in the user's installation. The MQ2 continuously detects ferromagnetic objects in front of its active face. It signals soiling via IO-Link when the current value exceeds the set threshold so that cleaning can be arranged. The same applies to changes in the switching area, e.g. caused by mechanical wear.

The integrated operating hours and switching cycles counter allows the provision of a signal if the selected number of switching operations has been reached, enabling targeted maintenance of tools.



Integration of smart sensors into a machine as a package

Type	Description	Order no.
Package components (complete set)		
	Package set	ZZ0588
Package accessories (individual components)		
	Sensor, 0.3 m, PUR cable, M12 connector	MQ2004
	IO-Link master DataLine Profinet interface, 4 ports	AL1300
	IO-Link master display, connection to master	E30443
	Connection cable, M12, 2 m, black, PUR cable	EVC013
	Connection cable, M12, 2 m grey, PUR cable, weld-field immune	EVW025
	Ethernet cable M12 / RJ45 0.5 m	E12490
	Mounting accessories	
	Angle bracket type MQ2 / IQ2, stainless steel	E12605
IO-Link accessories		
	USB IO-Link master for parameter setting and analysis of units Supported communication protocols: IO-Link (4.8, 38.4 and 230 Kbits/s)	E30390
	Memory plug, parameter memory for IO-Link sensors	E30398
	LR DEVICE (supplied on USB flash drive) Software for online and offline parameter setting of IO-Link sensors and actuators	QA0011
	Plug-in power supply, 230 V/24 V	E30080



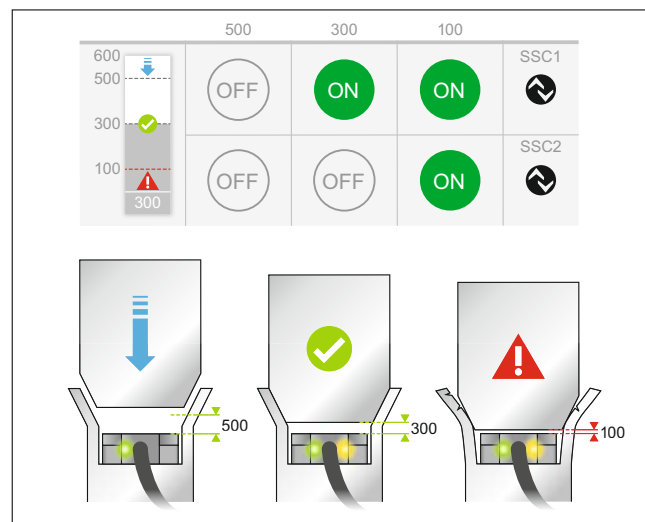
In addition to the connection to the machine control there is the option to evaluate secondary data for preventive maintenance in parallel.

The benefits of IO-Link

- set two different switch points to detect drifts, e.g. caused by wear or soiling, in the plant
- switch-on delay to distinguish between soiling and an approaching object
- integrated operating hours and switching cycles counter for targeted tool exchange
- easy configuration via laptop without having to go into the installation
- plant and location identification for easy localisation of the sensor in inaccessible areas
- the display allows easy reading of the “health status” outside the machine

“Too close” function

Two IO-Link switch points can be easily set via the LR Device software. The first switch point of the sensor becomes active and the orange LED lights when the workpiece is at the selected distance (e.g. 300 digits). If the distance is smaller (e.g. 100 digits), that is the workpiece comes unusually close, this implies wear in the plant, e.g. bending of the spanner. In this case the second switch point becomes active and a signal is provided via IO-Link. This makes maintenance when needed possible for the user.



We reserve the right to make technical alterations without prior notice. · 04.2019