IBS04, ICS05 IO-Link 3-wire DC

Miniaturized proximity inductive sensors with IO-Link communication

Benefits

- **A complete family.** Available in Ø4 and M5 male thread robust stainless steel housings with an operating distance of 0.8 to 1.3 mm.
- **High speed detection.** IBS04 and ICS05 inductive proximity sensors can reach an operating frequency of up to 6 kHz.
- **Easy to install.** The active face can be installed flush with the surrounding area. The user can choose between 2 m PVC cable and M8-disconnect plug versions.
- **High precision**. The onboard advanced microcontroller ensures better stability with respect to environmental influences, with highly reliable repeatable measurements between -25 and +70°C.
- **Easy customization to specific OEM requests:** different cable lengths and materials, special labelling, customized pig-tail solutions with special cables and connectors are possible on request.

Description

The IBS04 and ICS05 series represent the optimal solution for industrial automation equipment in applications where space is limited, including tool-selection, robotic position-sensing and control of micro-mechanisms. The advanced electronics is enclosed in a robust stainless steel housing. The availability of the M8-plug and 2m-PVC cable connection allow flexible mounting.
On-board IO-Link communication opens up many possibilities, such as easy configuration and set-up of the devices and advanced parameter setting.

Only for IO-Link sensors

- **The output** can be operated either as a switching output or in IO-Link mode.
- **Fully configurable via IO-Link v1.1.** Electrical outputs can be configured as PNP/NPN/Push-pull, normally open or normally closed.
- **Timer functions** can be set, such as switch-on and switch-off delay
- **Adjustable sensing distance and hysteresis:** sensing distance can be set to 62% or 100% of the maximum sensing distance
- **Temperature monitoring:** over or under-run temperature alarms can be set
- IO-Link

Applications

- Non contact detection of metal objects in general position-sensing and presence-sensing in industrial applications
- Particularly suitable for rotational speed monitoring thanks to the high operating frequency

Main functions

- Integrated diagnostic function with flashing LED in the event of a short circuit or overload

IO-Link sensors

- The devices can be operated in IO-Link mode once connected to an IO-Link master, or in standard I/O mode.
- In IO-Link mode the switching signals of the sensor are made available in the process data via the IO-Link interface.
- Several sensor functions can be set via the IO-Link interface:
  - Adjustable switching distance: 62% or 100% of the maximum switching distance.
  - Adjustable hysteresis: standard or increased value.
  - Divider function: the sensor gives a signal after a specified number of actuation pulses has been reached.
  - Switch-on delay: the switching pulse is generated after the sensor actuation.
  - Switch-off delay: the generation of the switch signal is delayed by the set time after sensor actuation.
  - Temperature error: temperature is out of specifications.
  - Temperature over-run and under-run: temperature is out of the limits defined by the user.

References

Order code

I □ S □ □ F □ □ □

Enter the code option instead of □

Code	Option	Description
I	-	Inductive sensor
□	B	Cylindrical housing with smooth barrel
	C	Cylindrical housing with threaded barrel
S	-	Stainless steel housing
□	04	Ø4 housing
	05	M5 housing
□	S	Short housing with smooth barrel
	S23	Short housing with thread length of 23 mm
F	-	Flush
□	08	Sensing distance 0.8mm
	15	Sensing distance 1.3mm
□	M5	M8 plug
	A2	2 m PVC cable
□	NO	NPN – normally open output
	NC	NPN – normally closed output
	PO	PNP – normally open output
	PC	PNP – normally closed output
	IO	IO-Link programmable version

Additional characters can be used for customized versions.