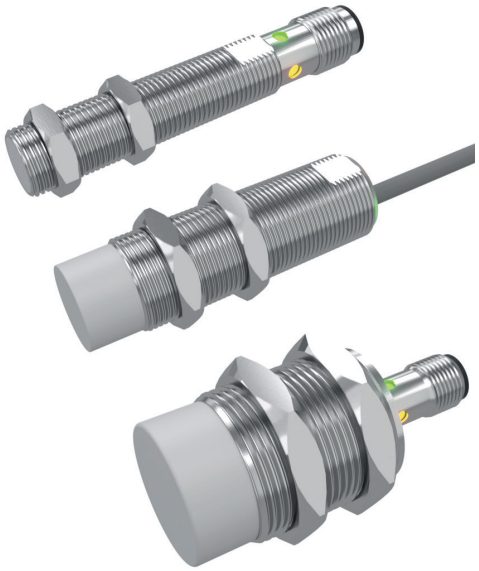
ICB12, ICB18 & ICB30 IO-Link 3-wire DC

New generation inductive proximity sensors with IO-Link communication



Description

The new generation ICB series is a complete family of high performance inductive sensors for contactless and wear free detection of metallic objects in industrial automation applications, such as packaging, materials handling and machine tools. The advanced electronics is enclosed in a robust nickel-plated brass housing. It is available in three diameters: M12, M18 and M30 with an extended sensing distance range between 4 and 22 mm.
On-board IO-Link communication opens up many possibilities, such as easy configuration and set-up of the devices and advanced parameter setting.

Benefits

- **A complete family.** Available in M12, M18 and M30 robust nickel-plated brass housings with an operating distance of 4 to 22 mm.
- **Less machine downtime.** Lower risk of mechanical damage thanks to the extended operating distance.
- **Easy to install**. ICB sensors have a milled section for wrench grip and two different thread lengths. The user can choose between 2 m PVC cable and M12-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.
- **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 33%, 50%, 75% 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
- 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: 33%, 50%, 75% 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

ICB □ □ □ □ □ IO

Enter the code option instead of □

Code	Option	Description
I	-	Inductive sensor
C	-	Cylindrical housing with threaded barrel
B	-	Nickel-plated brass housing
□	12	M12 housing
	18	M18 housing
	30	M30 housing
□	S30	Short housing with thread length of 30mm
	L50	Long housing with thread length of 50mm
□	F	Flush
	N	Non-flush
□	-	Sensing distance [mm] E.g. 04 = 4mm; 14 = 14mm
	04 or 08	ICB12 flush: 4mm ICB12 non-flush: 8mm
	08 or 14	ICB18 flush: 8mm ICB18 non-flush: 14mm
	15 or 22	ICB30 flush: 15mm ICB30 non-flush: 22mm
□	M1	M12 plug
	A2	2 m PVC cable
IO	-	IO-Link programmable version

Additional characters can be used for customized versions.