

## INDUCTIVE PROXIMITY SENSORS



## **PRODUCTS OVERVIEW**

INDUCTIVE PROXIMITY SENSORS, INDUCTIVE SAFETY SWITCHES





# SICK & CEBEO

## INNOVATIVE INDUCTIVE SENSORS

Cebeo, the leading electrical wholesaler, has recently announced a strategic partnership with SICK, a global manufacturer of industrial sensors and detection systems. This collaboration leverages the expertise of both companies to provide advanced solutions in the field of inductive sensors.

#### WHAT ARE INDUCTIVE SENSORS?

Inductive sensors detect metal objects without physical contact, renowned for their long lifespan and extreme robustness. They are pivotal in industrial automation and production processes, used for tasks like position detection, object counting on conveyor belts, and monitoring metal components in machinery.

#### **BENEFITS OF THE PARTNERSHIP:**

1

## TECHNICAL EXPERTISE

Cebeo's specialists, trained in SICK's inductive sensor technology, provide tailored solutions to customers. From selecting the right sensor for a specific application to optimizing detection parameters, Cebeo offers comprehensive support.

2

## EFFICIENCY AND SAFETY

This partnership ensures customers have access to connected, more efficient, and safer machines. Benefits include realtime production line monitoring, automatic setting adjustments, and swift deviation detection.

3

## COMPREHENSIVE PORTFOLIO

Cebeo now offers a complete portfolio, featuring SICK's inductive sensors alongside other top brands. Whether you're looking for compact cylindrical sensors, block sensors, or special variants, Cebeo has it covered.

FOR MORE INFORMATION, OUR SALES TEAMS ARE AT YOUR SERVICE! https://www.cebeo.be

## INDUCTIVE PROXIMITY SENSORS SELECTION GUIDE

Product family			Housing			Housing material			Special features									
		Cylindrical threaded	Cylindrical smooth	Rectangular	Stainless steel	Metal	VISTAL®	Plastic	Analog output	IO-Link	Smart Task	Triple sensing range	Quadruple sensing range	Resistant against coolants and lubricants	Resistant against cleaning products	Double film sensors	Speed monitoring	
INDUCTI	VE PROXIMITY SENSORS																	
	IME	•			•							•						
1000	IMB	•			•					•				•				
1000	IMM											•						
	IMR							•				•						
00000	IMI	•			•									•	•			
VC.	IMS	•			•									•				
	IM AC	•																
O're	IMF	•			•					•					•			
	IMN	•				•												
Or a Till	IMA	•				•			•			•						
CC	IMP																	
Corto	IMC							•			•			•				
Con Control	IDF	•			•					•				•		•		
	SAM	•				-				•							•	
	IQG			•				•										
	IQB			•				•				•						
	IQL			•		•		•										
***	IQM			•				•										
	IQY			•		•		•				•						
	IQV																	
INDUCT	VE SAFETY SWITCHES																	
18 18 18 18 18 18 18 18 18 18 18 18 18 1	IME2S	•																
	IQB2S						•											
	IN4000 Direct					•												
	In stock at Cebeo																	

## SELECTION GUIDE INDUCTIVE PROXIMITY SENSORS

Special features			Electrical wiring			j	Sensing range S₁	Page			
Visual adjustment indicator	High pressure resistant	Welding field-resistant	Reduction factor 1	Sensing face made of stainless steel	ATEX certificated	DC 2-wire	AC/DC 2-wire	DC 3-wire	DC 4-wire	10 20 30 40 50 60 70 80	
						•		•		38 mm	6
•						•		•	•	20 mm	6
•								•		6 mm	6
		•						•	•	75 mm	7
•				•				•		40 mm	7
										20 mm	7
							•			15 mm	7
•								•	•	20 mm	8
					•	•				15 mm	8
										0 mm 40 mm	8
	•							•	•	3 mm	9
•										20 mm	9
									•	4 mm	9
									•	10mm	9
						•		•	•	40 mm	10
									-	8 mm	10
							•	-	•	60 mm	10
										3 mm	11
									_	4 mm	11
								•		7 mm	11
									-	15 mm	12
									-	4 mm	13
									-	20 mm	13

#### **INDUCTIVE PROXIMITY SENSORS** PRODUCT FAMILY OVERVIEW



The economic standard for use in industrial environments



**IMB** 

The rugged standard for use in harsh ambient conditions



IMM

Miniature sensors for industrial applications

TECHNICAL DATA OVERVIEW								
Housing	Cylindrical thread design	Cylindrical thread design	Cylindrical smooth housing / Cylindrical thread design					
Thread size	M8 x 1 M12 x 1 M18 x 1 M30 x 1.5	M8 x 1 M12 x 1 M18 x 1 M30 x 1.5	M4 x 0.5 M5 x 0.5					
Dimensions	-	-	-					
Diameter	Ø 8 mm Ø 30 mm	Ø 8 mm Ø 30 mm	Ø 3 mm Ø 6.5 mm					
Sensing range S <sub>n</sub>	1 mm 38 mm	2 mm 20 mm	0.6 mm 6 mm					
Housing material	Brass / Stainless steel V2A	Stainless steel V2A	Stainless steel V2A					
Enclosure rating	IP67 IP65	IP68, IP69K	IP67					

#### AT A GLANCE

- Types: M8 to M30
- Extended sensing ranges: 1.5 mm to 38 mm
- Electrical configuration: DC 3-/4-wire, DC 2-wire
- Enclosure rating: IP 67
- Temperature range: -25 °C to +75 °C
- Nickel-plated brass housing; plastic sensing face
- Triple sensing range

- Types: M8 to M30
- Extended sensing ranges: 2 mm to 20 mm
- Electrical configuration: DC 3-/4-wire, DC 2-wire
- Enclosure rating: IP 68, IP 69K
- Temperature range: -40 °C to +100 °C
- Rugged stainless-steel housing; plastic sensing face
- 10-Link and visual
- adjustment indicator Resistant to oils and cooling
- lubricants; suitable for use outdoors

- Types: M4 to M5, diameter from 3 mm to 6.5 mm
- Extended sensing ranges: 0.6 mm to 6 mm
- Electrical configuration: DC 3-wire
- Enclosure rating: IP 67
- Temperature range: −25 °C to +70 °C
- Rugged stainless-steel housing; plastic sensing face
- IO-Link and visual adjustment indicator
- Extremely compact, lightweight, and spacesaving



In stock at Cebeo





#### PRODUCT FAMILY OVERVIEW INDUCTIVE PROXIMITY SENSORS











**IMR** 

Reduction factor 1 sensors for welding applications

IMI

Rugged full metal sensors for use in challenging applications **IMS** 

Rugged sensors for use in mobile machines

**IM AC** 

AC sensors for industrial use

Cylindrical thread design / rectangular	Cylindrical thread design	Cylindrical thread design	Cylindrical thread design
M8 M12 M18 M30	M8 x 1 M12 x 1 M18 x 1 M30 x 1.5	M12 x 1 M18 x 1 M30 x 1.5	M12 x 1 M18 x 1 M30 x 1.5
40 mm x 40 mm x 65 mm 80 mm x 40 mm x 114 mm	-	-	-
8 mm 30 mm	Ø 8 mm Ø 30 mm	Ø 12 mm Ø 30 mm	Ø 12 mm Ø 30 mm
2 mm 75 mm	2 mm 40 mm	4 mm 20 mm	2 mm 15 mm
PTFE coating / plastic	Stainless steel V2A / Stainless steel V4A	Stainless steel V2A / Stainless steel V4A	Brass
IP68	IP68, IP69K	IP68, IP69K	IP67

- Types: M8 to M30, 40 x 40 mm and 80 x 80 mm
- Increased sensing range: up to 75 mm
- Electrical configuration: DC 3- and 4-conductor
- Enclosure rating: IP68
- Temperature range: −30° C to +85° C
- PTFE coating for cylindrical thread designs
- Reduction factor 1 for all metals
- Triple sensing range

- Types: M8 to M30
- Large sensing ranges: 2 mm to 40 mm
- Enclosure rating: IP68, IP69K
- Temperature range: -25 °C to +85 °C
- Option of rugged housing or housing suitable for the food industry made completely out of stainless
- 10-Link and visual adjustment indicator
- Resistant against oils, cooling lubricants and cleaning products



- Thread sizes: M12 to M30
- Large sensing ranges: 4 mm to 20 mm
- Electrical configuration: DC, 3-wire
- Enclosure rating: IP68, IP69K
- Ambient temperature: -40 °C to +100 °C
- Rugged stainless-steel housing; plastic sensing
- Load dump protection and high electromagnetic compatibility of 100 V/m
- E1 type approval



- Types: M12 to M30
- Simple sensing ranges: 2 to 15 mm
- Electrical configuration: AC 2-wire, AC/DC 2-wire
- Enclosure rating: IP67
- Temperature range: −25 °C to 75 °C
- Nickel-plated brass housing; plastic sensing face



#### **INDUCTIVE PROXIMITY SENSORS** PRODUCT FAMILY OVERVIEW







#### **IMF**

The economic standard for use in the food industry

#### **IMN**

NAMUR sensors for explosive zones

#### **IMA**

Analog sensors with up to 2 x detection range for use in industrial environments

TECHNICAL DATA OVERVIEW	l			
Housing	Cylindrical thread design	Cylindrical thread design	Cylindrical thread design	
Thread size	M8 x 1 M12 x 1 M18 x 1 M30 x 1.5	M8 x 1 M12 x 1 M18 x 1 M30 x 1.5	M8 x 1 M12 x 1 M18 x 1 M30 x 1.5	
Dimensions	-	-	-	
Diameter	Ø 8 mm Ø 30 mm	Ø 8 mm Ø 30 mm	Ø 8 mm Ø 30 mm	
Sensing range S <sub>n</sub>	2 mm 20 mm	1 mm 15 mm	4 mm 40 mm	
Housing material	Stainless steel V4A	Brass	Brass	
Enclosure rating	IP68, IP69K	IP67	IP67	

#### AT A GLANCE

- Types: M8 to M30
- Extended sensing ranges: 2 mm to 20 mm
- Electrical configuration: DC 3-/4-wire
- Enclosure rating: IP 68, IP 69K
- Temperature range: -40 °C to +100 °C
- Food-compatible stainlesssteel housing, plastic sensing face
- Optical adjustment indicator, IO-Link-ready
- Resistant to industrial cleaning agents, Ecolabcertified

- Types: M8 to M30
- Sensing ranges: 1 mm to 15 mm
- NAMUR according to DIN EN 60947-5-6
- Enclosure rating: IP 67
- Temperature range: −20 °C to +70 °C
- Nickel-plated brass housing; plastic sensing face
- ATEX device category 1G and 2G
- Suitable for applications in explosion-hazardous areas

- Types: M8 to M30
- Extended detection ranges: 0 mm to 40 mm
- Analog output signal 0 V ... 10 V and 4 mA ... 20 mA
- Enclosure rating: IP 67
- Temperature range: −25 °C to +75 °C
- Nickel-plated brass housing; plastic sensing face
- High resolution and repeatability
- Distance control and continuous position detection
- Triple sensing range







#### PRODUCT FAMILY OVERVIEW INDUCTIVE PROXIMITY SENSORS





High-pressure-resistant sensors for hydraulic applications



**IMC** 

Four times the switching capability with inductive intelligence



**IDF** 

Easily and reliably detecting double films



SAM

The simple and intelligent way of speed monitoring

Cylindrical thread design	Cylindrical thread design / rectangular	Cylindrical thread design	Cylindrical thread design
M5 x 0.5 M8 x 1 M12 x 1 M14 x 1.5	M8 x 1 M12 x 1 M18 x 1 M30 x 1.5	M8 x 1 M12 x 1	M18 x 1 M30 x 1.5
-	10 mm x 28 mm x 16 mm 12 mm x 40 mm x 26 mm	-	-
Ø 5 mm Ø 14 mm	Ø 8 mm Ø 30 mm	Ø 8 mm / Ø 12 mm	Ø 18 mm / Ø 30 mm
1 mm 3 mm	2 mm 20 mm	2 mm / 4 mm	7 mm / 10 mm
Phynox Stainless steel V2A Stainless steel V4A	Stainless steel V2A / plastic	Stainless steel V2A	Brass
IP68	IP68 / IP69K / IP68	IP68, IP69K	IP67

- Types: M5, M8, M12 and M14
- Extended sensing ranges: 1 mm to 3 mm
- Electrical configuration: DC 3- and 4-wire
- Enclosure rating: IP 68
- Temperature range: −25 °C to +100 °C
- Stainless steel housing with active surface made from stable high-performance ceramic
- Pressure resistant up to 500 bar, gas-tight front
- Expected service life of up to 1 million pressure cycles

- Types: M8 to M30; IQ10 and IQ12
- Four programmable switching points or windows at an Sn of up to 20 mm
- Freely programmable output function
- Enclosure rating: IP 68, IP 69K
- Temperature range: -40 °C to +75 °C
- Rugged stainless-steel or VISTAL housing
- Logic, counter, time measurement, or temperature monitoring function
- 10-Link 1.1



- Sizes: M8 and M12
- Detection of metallic double films
- Electrical configuration: DC, 4-conductor
- Temperature range: −25 °C ... +70 °C
- Enclosure rating: IP68
- Detection regardless of the gripper position
- Teach-in via cable or IO-

- Types: M18 and M30
- Sensing ranges: up to 10 mm flush
- Speed and acceleration monitoring
- Monitoring range: 6 to 12,000 pulses/min. and 0.1 to 2 pulses/sec.2
- Switching and pulse output
- Intelligent start-up delay
- Speed monitoring can be flexibly configured via two thresholds
- Flexible sensor settings, monitoring, extended diagnostics, and visualization thanks to IO-Link





#### **INDUCTIVE PROXIMITY SENSORS** PRODUCT FAMILY OVERVIEW



**IQG** 

Compact rectangular housings for use in harsh ambient conditions



**IQB** 

Small rectangular housings for use in industrial environments



**IQL** 

Large rectangular housings for use in industrial environments

TECHNICAL DATA OVERVIEW								
Housing	Rectangular	Rectangular	Rectangular					
Dimensions	40 mm x 40 mm x 66 mm 40 mm x 40 mm x 118 mm 40 mm x 40 mm x 132 mm	10 mm x 28 mm x 16 mm 12 mm x 40 mm x 26 mm	80 mm x 105 mm x 40 mm 80 mm x 92 mm x 40 mm					
Sensing range S <sub>n</sub>	20 mm / 40 mm	2 mm 8 mm	60 mm / 50 mm					
Housing material	Plastic	Plastic	Plastic / Zinc diecast					
Enclosure rating	IP67, IP68, IP69K	IP68	IP65 / IP67					

#### AT A GLANCE

- Type: 40 mm x 40 mm
- Extended sensing ranges: 20 mm to 40 mm
- Electrical configuration: DC 2-/3-/4-wire
- Enclosure rating: IP 68, IP 69K
- Temperature range: −25 °C to +85 °C
- Plastic housing
- Push-lock mounting system
- Sensor head can be rotated in five directions

- Types: 10 mm x 16 mm x 28 mm or 12 mm x 26 mm x 40 mm
- Extended sensing ranges: 2 mm to 8 mm
- Electrical configuration: DC 3-/4-wire
- Enclosure rating: IP 68
- Temperature range: −25 °C to +75 °C
- Tough VISTAL™ housing
- Small version with 270° output state display
- Triple sensing range

- Type: 80 mm x 80 mm
- Longer sensing ranges: 50 mm to 60 mm
- Electrical configuration: DC 3-/4-wire, or AC/DC 2-wire
- Enclosure rating IP 65 or IP 67
- Temperature range: −25 °C to +80 °C
- Plastic housing
- Programmable N/O or N/C function
- Sensing range setting via potentiometer







In stock at Cebeo

#### PRODUCT FAMILY OVERVIEW INDUCTIVE PROXIMITY SENSORS



**IQM** 

Rectangular miniature sensors for use in industrial environments



**IQY** 

Slim rectangular housings for use in industrial environments



**IQV** 

Flat rectangular housings for use in industrial environments

Rectangular	Rectangular	Rectangular
8 mm x 16 mm x 4 mm 10 mm x 30 mm x 6 mm	8 mm x 40 mm x 8 mm 5 mm x 25 mm x 5 mm	20 mm x 32 mm x 8 mm 25 mm x 50 mm x 10 mm
1.5 mm / 3 mm	0.8 mm 4 mm	7 mm / 5 mm
Plastic	Plastic / Brass	Zinc diecast / Aluminum
IP67	IP67 / IP68	IP67

- Types: 8 mm x 16 mm x 4 mm or 10 mm x 30 mm x 6 mm
- Extended sensing ranges: 1.5 mm to
- Electrical configuration: DC 3-wire
- Enclosure rating: IP 67
- Temperature range: −20 °C to +70 °C
- Plastic housing
- Flat, space-saving and light design
- Types: 5 mm x 5 mm x 25 mm or 8 mm x 8 mm x 40 mm
- Extended sensing ranges: 0.8 mm to
- Electrical configuration: DC 3-wire
- Enclosure rating: IP 67 or IP 68
- Temperature range: −25 °C to +75 °C
- Tough VISTAL™ housing
- Thin version with 270° output state
- Triple sensing range

- Types: 20 mm x 32 mm x 8 mm or 25 mm x 50 mm x 10 mm
- Extended sensing ranges: 5 mm to
- Electrical configuration: DC 3-/4-wire
- Enclosure rating: IP 67
- Temperature range: −25 °C to +70 °C
- Metal housing, plastic sensing face
- Flat housing made of robust metal









#### **IME2S**

Safe and easy position monitoring up to PL d

TECHNICAL DATA OVERVIEW	V	
Sensor principle	Inductive	
Safety integrity level	SIL2 (IEC 61508), SILCL2 (EN 62061)	
Category	Category 2 (ISO 13849-1)	
Performance level	PL d (ISO 13849-1)	
Actuator coding level	Uncoded (EN ISO 14119)	
Type of output	Semiconductor (OSSD)	
Number of safe outputs	2	
Connection type	Male connector M12, 4-pin / Cable with M12 male connector, 4-pin / Cable, 4-wire	

#### AT A GLANCE

- Types: M12 to M30
- Increased response ranges: 4 mm to 15 mm
- Two OSSD safety outputs
- Enclosure rating: IP67
- Temperature range: -25 °C to +70 °C
- Nickel-plated brass housing, plastic sensing face
- Up to performance level PL d (EN ISO 13849)
- Connection variants: M12 male connector, cable or cable with M12 male connector



#### PRODUCT FAMILY OVERVIEW NON-CONTACT SAFETY SWITCHES



**IQB2S** 

Safe and easy position monitoring up to PL d



**IN4000 Direct** 

Safe, non-contact position monitoring

Inductive	Inductive
SIL2 (IEC 61508), SILCL2 (EN 62061)	SIL3 (IEC 61508), SILCL3 (EN 62061)
Category 2 (ISO 13849-1)	Category 3 (EN ISO 13849)
PL d (ISO 13849-1)	PL e (EN ISO 13849)
Uncoded (EN ISO 14119)	Uncoded (EN ISO 14119)
Semiconductor (OSSD)	Semiconductor (OSSD)
2	2
Cable with M12 male connector, 4-pin / male connector M8, 4-pin / Cable, 4-wire	Plug connector, M12, 4-pin

- Rectangular type: 12 mm x 26 mm x 40 mm
- Response range: 4 mm
- Two OSSD safety outputs
- Enclosure rating: IP67
- Temperature range: -25 °C bis +70 °C
- Rugged VISTAL® housing
- Up to performance level PL d (EN ISO 13849)
- Connection variants: M8 male connector, cable or cable with M12 male connector

- Two OSSD safety outputs for direct connection of sensors to a single safety controller
- Response range of up to 20 mm
- · LED status indicator
- Up to performance level PL e (EN ISO 13849)
- Flexi Loop-compatible M12 plug connector



## **CEBEO INDUSTRY BRANCHES**

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## **SICK** AT A GLANCE

SICK is a leading manufacturer of intelligent sensors and sensor solutions for industrial applications. With more than 10,000 employees and over 50 subsidiaries and equity investments as well as numerous agencies worldwide, SICK is always close to its customers. 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.

SICK has extensive experience in various industries and understands their processes and requirements. With intelligent sensors, SICK delivers exactly what the 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 SICK a reliable supplier and development partner.

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

That is "Sensor Intelligence."

#### Worldwide presence:

Australia, Austria, Belgium, Brazil, Canada, Chile, China, Czech Republic, Denmark, Finland, France, Germany, Great Britain, Hungary, Hong Kong, India, Israel, Italy, Japan, Malaysia, Mexico, Netherlands, New Zealand, Norway, Poland, Romania, Russia, Singapore, Slovakia, Slovenia, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, United Arab Emirates, USA, Vietnam.

Detailed addresses and further locations - www.sick.com



