

# Inductive Factor 1 Sensors.

Constant distance towards any metal

Inductive Factor 1 sensors offer the great benefit of maintaining the same sensing distance towards all metals. Unlike standard sensors where this value changes, depending on the material. The benefits of Factor 1 sensors are obvious: This uniform distance offers outstanding flexibility in system conception and sensor installation. Contrary to conventional sensors, Factor 1 sensors feature enhanced sensing distance towards many different metals. Hence, they are even perfect for applications with variable objects.

## Your benefit

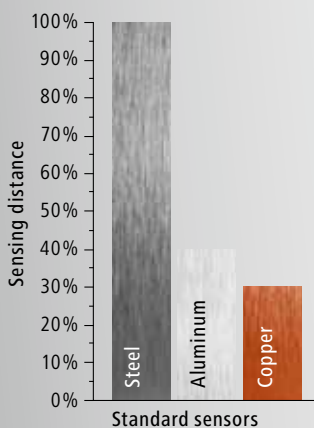
- Utmost flexibility in construction and installation
- Uniform, large sensing distance towards any metal
- Shorter installation times, thanks to minimal adaptation effort
- Eased alignment thanks to large sensing distance
- Reduced sensor variety – the same sensor will match different applications



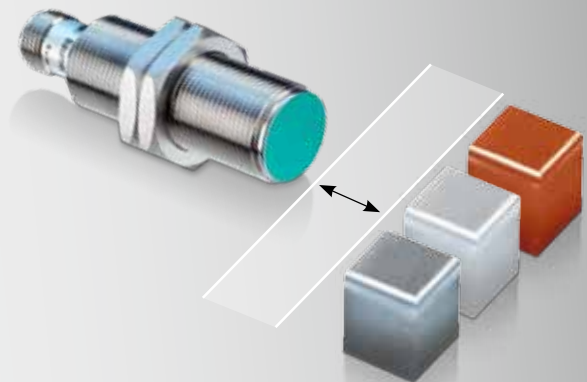
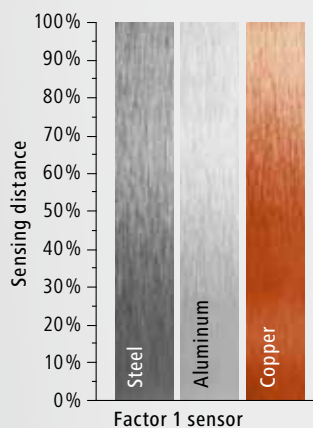
## Factor 1 sensors and standard sensors in comparison

Towards a steel object, the sensing distance of both standard and Factor 1 sensor is the same. With aluminium, it is reduced to 40% and even down to 30% with copper at standard products, whereas Factor 1 sensors provide 100%.

### Standard sensor

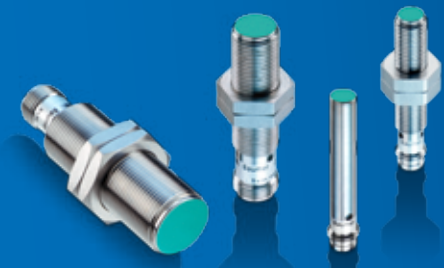


### Factor 1 sensor



# Product overview

## Inductive Factor 1 Sensors



Housing diameter	Nominal sensing distance $S_n$	Mounting type	Switching frequency	Voltage supply range	Connection type	Order code
6,5 mm	2 mm	Flush	< 3 kHz	5 ... 36 VDC	Connector M8	IR06.P02F-11117730
M8x1	2 mm	Flush	< 3 kHz	5 ... 36 VDC	Connector M8	IR08.P02F-11111235
M12x1	4 mm	Flush	< 2 kHz	5 ... 36 VDC	Connector M12	IR12.P04F-11111236
M18x1	6 mm	Flush	< 0,5 kHz	5 ... 36 VDC	Connector M12	IR18.P06F-11117735
M18x1	8 mm	Semi-flush	< 0,5 kHz	5 ... 36 VDC	Connector M12	IR18.P08F-11111237

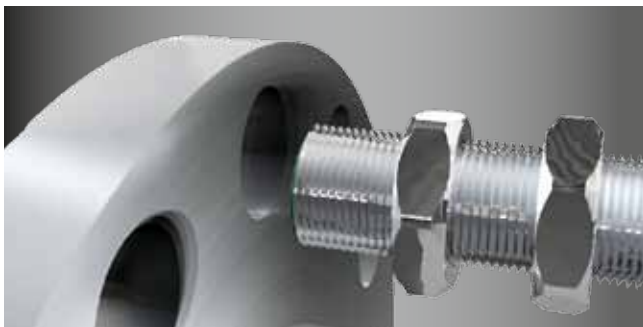
Further sensor options available (connector/cable, PNP/NPN, normally closed / normally open)

## Faster and more independent.

The Baumer Factor 1 sensors offer more than conventional factor 1 sensors. Further to a uniform sensing distance they excel by some more strengths.

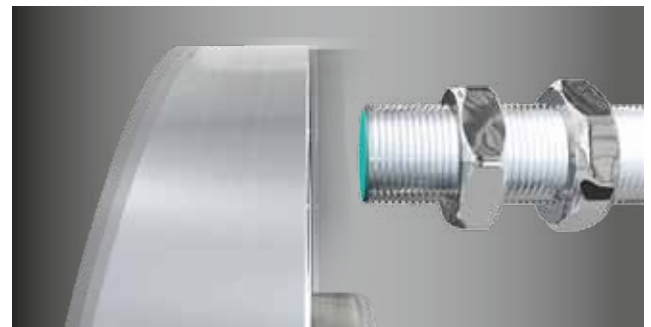
### Benefits of Baumer Factor 1 Sensors:

- Sensing distance independent of mounting type (flush)
- Large sensing distance, even at high frequencies
- High EMC immunity
- Low series deviation
- Long service life (MTTF)
- Wide operating voltage range 5 ... 36 V



### The fastest in their class

Baumer Factor 1 sensors feature a very high switching speed (up to 3 kHz). They ensure reliable operation, even at the highest speeds. Their ratio of sensing distance to speed is unrivaled.



### High sensing reserve capacity

Thanks to maximum sensing reserve capacity, the sensor ensures perfect measurement results and reliability, even with lateral movement of the object and changes in the sensing distance.

 **Baumer**  
Passion for Sensors

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