Robust full-metal sensors for use in harsh environments

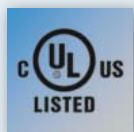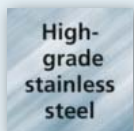## Inductive sensors

Short:
ideal for tight spaces

Flexible: temperature range from -40...85 °C

Sealed: protection ratings IP 65 to IP 69K

Quality: high-grade stainless for food processes

Solid:
shock and vibration resistant

High-grade stainless steel

IP 67
IP 68
IP 69 K

cULus LISTED

Resistant

Resistant

Resistant

High reliability even under extreme conditions

Full-metal sensors are used wherever an application presents particular challenges to the mechanical design. In the food industry, for example, not only rapid changes of temperature but also aggressive media used for daily cleaning stress the housing material. The same applies to applications in machine tools and plants where the sensors are permanently exposed to coolants and lubricants. In the steel industry or in automotive industry, however, weld spatter is not only a strain on the sensing face but also on the threaded sleeve. In this context the full-metal design with non-stick coating and the robust sensing face are the ideal solution to ensure a safe operation.

Moreover, the robust stainless steel design offers optimum protection against abrasive parts in metal-cutting machining. Additionally, the compact and short design permits use even in the smallest of spaces.

Type	Total length [mm]	Sensing range [mm]	f [Hz]	Protection rating	Ambient temperature [°C]	Order no.
M12 connector · output function NO · 3-wire DC PNP · coolant and oil lubricant						
M12	45	4	100	IP 65, IP 66, IP 67, IP 68, IP 69K	-40…85	**IFC275**
M18	45	8	100	IP 65, IP 66, IP 67, IP 68, IP 69K	-40…85	**IGC258**
M30	50	15	50	IP 65, IP 66, IP 67, IP 68, IP 69K	-40…85	**IIC233**
M12 connector · output function NO · 3-wire DC PNP · welding area · anti-spatter						
M12	45	4	2	IP 65, IP 66, IP 67, IP 68, IP 69K	-40…85	**IFR207**
M18	45	8	2	IP 65, IP 66, IP 67, IP 68, IP 69K	-40…85	**IGR207**
M30	50	15	2	IP 65, IP 66, IP 67, IP 68, IP 69K	-40…85	**IIR207**
M12 connector · output function NO · 3-wire DC PNP · hygienic and wet areas						
M12	45	4	100	IP 65, IP 66, IP 67, IP 68, IP 69K	0…100	**IFT257**
M18	45	8	100	IP 65, IP 66, IP 67, IP 68, IP 69K	0…100	**IGT258**
M30	50	15	50	IP 65, IP 66, IP 67, IP 68, IP 69K	0…100	**IIT243**

Dimensions

IFC, IFR, IFT

IGC, IGR, IGT

IIC, IIR, IIT
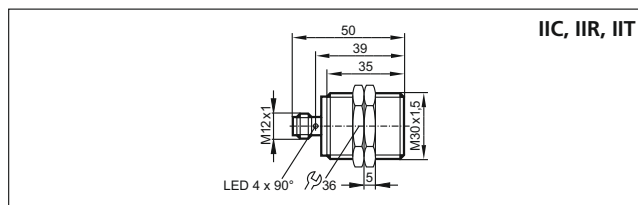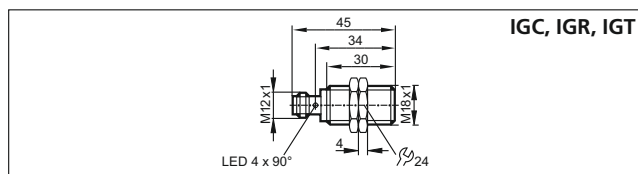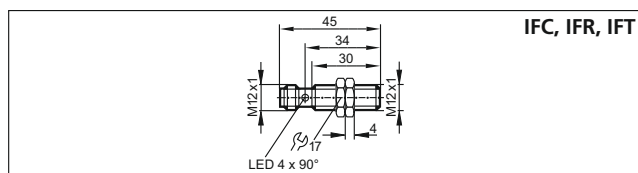
Further technical data		
Operating voltage	[V DC]	10…30
Current consumption	[mA]	< 10
Installation		flush
Reverse polarity protection		•
Short-circuit protection		•
Overload protection		•
Protection class		III
Housing materials		High-grade stainless steel (316L)
Switching status indication	[LED]	yellow (4 x 90°)

Wiring diagram
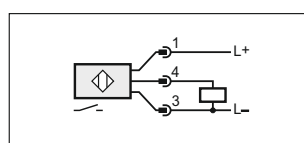
Connection technology

Type	Description	Order no.
	Socket, M12, 2 m black, PUR cable	**EVC001**
	Socket, M12, 5 m black, PUR cable	**EVC002**
	Socket, M12, 2 m grey, PUR cable	**EVW001**
	Socket, M12, 5 m grey, PUR cable	**EVW002**
	Socket, M12, 4-pole 2 m grey, PVC cable	**EVF064**
	Socket, M12, 4-pole 5 m grey, PVC cable	**EVF001**

Accessories

Type	Description	Order no.
	Angle bracket for type M12, stainless steel	**E10735**
	Angle bracket for type M18, stainless steel	**E10736**
	Angle bracket for type M30, stainless steel	**E10737**

ifm – close to you!