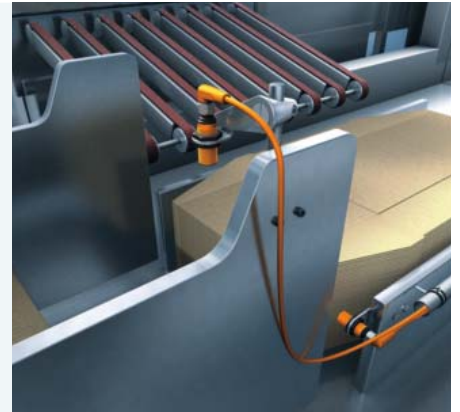




Position sensors

# Object detection for long ranges and difficult surfaces



Ultrasonic sensors



**M18 plastic housing available in the two lengths 60 mm and 98 mm**

**Long ranges from 300 mm to 2200 mm available**

**The vibrating sound transducer reduces the deposit of dirt**

**Digital and analogue output for point level measurement and distance detection**

**Easy setting via teach button, wire teach or IO-Link**



Ultrasound



TEACH-IN



IO-Link

## The alternative for difficult surfaces

Ultrasonic sensors transmit and receive sound waves in the ultrasonic range. The object to be detected reflects the sound waves and the distance information is determined via time of flight measurement. As opposed to photoelectric sensors colour, transparency or the object's surface shine do not play a role. Blister packages in packaging technology or transparent plastic bowls in the food industry, for example, can be reliably detected.

## High performance

The ifm ultrasonic sensors in M18 design provide a particularly small blind zone and long sensing ranges which are usually only achieved by sensors of a considerably larger design.

The sensors operate reliably with heavy soiling so that they can be used in applications in which photoelectric sensors meet their limits.



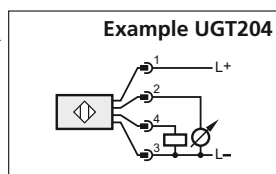
Type	Housing length/ dimensions [mm]	Setting	Output	Order no.	Order no.	Order no.	Order no.	Order no.
<b>Ultrasonic diffuse-reflection sensor · 3-wire DC, 4-pole</b>				<b>300 mm*</b>	<b>800 mm*</b>	<b>1200 mm*</b>	<b>1600 mm*</b>	<b>2200 mm*</b>
M18	60	Wire	PNP	<b>UGT200</b>	<b>UGT201</b>	<b>UGT202</b>	–	–
M18	60	Wire	NPN	<b>UGT209</b>	<b>UGT210</b>	<b>UGT211</b>	–	–
M18	60	IO-Link	PNP	<b>UGT212</b>	<b>UGT213</b>	<b>UGT214</b>	–	–
<b>Ultrasonic diffuse-reflection sensor · 3-wire DC, 4-pole</b>				<b>300 mm*</b>	<b>800 mm*</b>	<b>1200 mm*</b>	<b>1600 mm*</b>	<b>2200 mm*</b>
M18	98	Pushbutton, IO-Link	2 x PNP	–	–	–	<b>UGT203</b>	<b>UGT206</b>
M18	98	Pushbutton, IO-Link	PNP + 4...20 mA	–	–	–	<b>UGT204</b>	<b>UGT207</b>
M18	98	Pushbutton, IO-Link	PNP + 0...10 V	–	–	–	<b>UGT205</b>	<b>UGT208</b>

\* Max. range

## Accessories

Type	Description	Order no.
	Mounting set for clamp mounting, diecast zinc, Ø 12 mm	<b>E20720</b>
	Mounting set for clamp mounting, stainless steel, Ø 12 mm	<b>E21206</b>
	Mounting set for clamp mounting, diecast zinc, Ø 12 mm	<b>E20721</b>
	Mounting set for clamp mounting, stainless steel, Ø 12 mm	<b>E21207</b>
	Rod, 100 mm, Ø 12 mm, M10 thread, stainless steel	<b>E20938</b>
	Rod, 200 mm, Ø 10 mm, M10 thread, stainless steel	<b>E20940</b>
	Cube for mounting on an aluminium profile, M10 thread, diecast zinc	<b>E20951</b>

## Wiring



## Common technical data

Operating voltage	[V DC]	10...30
Current rating	[mA]	100
Switching output		
Operating temperature range	[°C]	-20...70
Temperature compensation		•
Protection		IP 67
Connection		M12 connector
Status indications	LED	yellow
Echo	LED	green

## Connection technology

Type	Description	Order no.
	Socket, M12, 4-pole 2 m black, PUR cable	<b>EVC001</b>
	Socket, M12, 4-pole 5 m black, PUR cable	<b>EVC002</b>
	Socket, M12, 4-pole 2 m black, PUR cable	<b>EVC004</b>
	Socket, M12, 4-pole 5 m black, PUR cable	<b>EVC005</b>