

# EVERY THING ULTRA SONIC

Extract from our online catalogue:

Ics+ ultrasonic sensors

Current to: 2024-03-01

NEW  
DESIGN



The new lcs+ ultrasonic sensors come in a very compact square-shaped housing - with analogue or switching output + IO-Link.

## HIGHLIGHTS

- › Very compact housing dimensions › only 62 mm x 62 mm x › 37.2 › mm
- › IO-Link interface › for support of the new industry standard
- › Synchronisation and multiplex mode › for simultaneous operation of up to ten sensors in close quarters
- › 8 m maximum detection range
- › UL Listed to Canadian and US safety standards
- › Smart Sensor Profiles › more transparency between IO-Link Devices

## BASICS

- › 1 Push-Pull switching output, or 2 pnp switching outputs
- › Analogue output 4–20 mA and 0–10 V › with automatic switching between current and voltage outputs
- › microsonic Teach-in by using button T1 and T2
- › 0.18 mm to 2.4 mm resolution
- › Temperature compensation
- › 9–30 V operating voltage
- › LinkControl › for configuration of sensors from a PC

# Description

## The lcs+ ultrasonic sensors

have a block-like plastic housing with a base area of only 62 x 62 mm and four fastening bores.

The sensors are Listed to applicable UL Standards and requirements by UL for Canada and the US.

## Two dual colour LEDs

show all operating statuses.

## Three output stages are available for selection:



1 Push-Pull switching output with pnp or npn switching technology



2 pnp switching outputs



1 analogue output 4–20 mA or 0–10 V

## Using the two Teach-in buttons T1 and T2

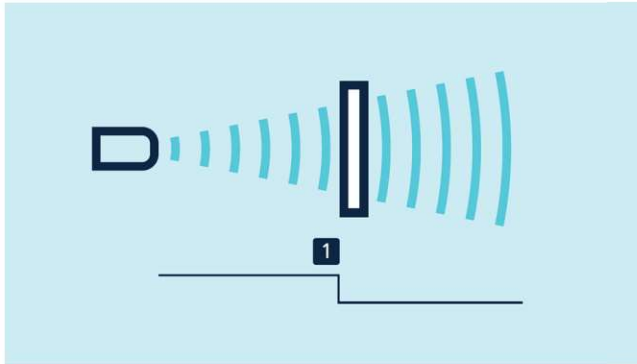
the lcs+ sensors can be easily set.

## The lcs+ sensors with switching output have three operating modes:

- › Single switching point
- › Two-way reflective barrier
- › Window mode

## Teach-in of a single switching point

- › Place object to be detected (1) at the desired distance
- › Push button T2 for about 3 seconds
- › Then push button T2 again for about 1 second

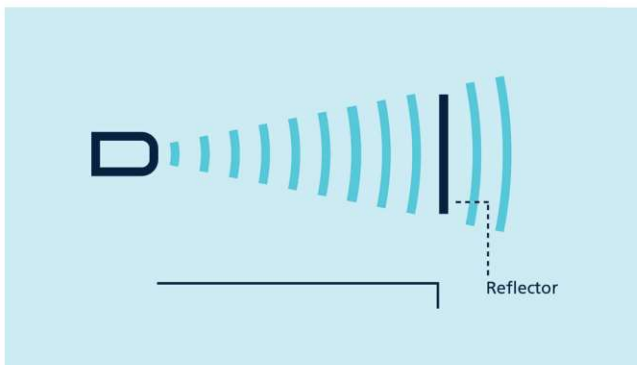


*Teach-in of a switching point*

### Teach-in of a two-way reflective barrier

with a fixed mounted reflector

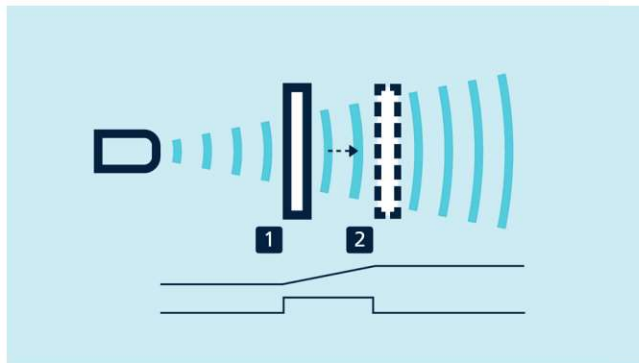
- › Push button T1 for about 3 seconds
- › Then push button T1 again for about 10 seconds



*Teach-in of a two-way reflective barrier*

### For setting the analogue output

- › Initially position the object to be detected to the sensor-close window limit (1)
- › Push button T1 for about 3 seconds
- › Then move the object to the sensor-distant window limit (2)
- › Then push button T1 again for about 1 second



*Teach-in of an analogue characteristic or a window with two switching points*

### For configuration of a window

with two switching points on a single switched output, the procedure is the same as setting the analogue.

### Analogue sensors

check the connected working resistance at the output and automatically switch to 4–20 mA current output or 0–10 V voltage output.

### NCC/NOC

and rising/falling analogue characteristics can also be set via the buttons.

### LinkControl

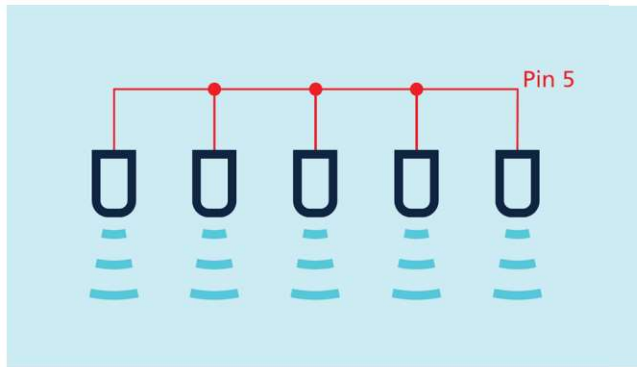
permits comprehensive parameterisation of lcs+ ultrasonic sensors via the **LinkControl adapter LCA-2** which connects the sensors to the PC.



*Sensor connected to the PC via LCA-2 for programming*

### Easy to synchronise

If several lcs+ ultrasonic sensors are operated in one application, they can be synchronised via pin 5 to prevent.



*Synchronisation using pin 5*

If more than 10 sensors must be synchronised, this can be carried out with the **SyncBox1** , which is available as an accessory. Synchronisation via pin 5 is also possible in IO-Link mode.

### IO-Link

Ultrasonic sensors **Ics+340/F/A** and **Ics+600/F/A** have a Push-Pull switching output and support IO-Link in version 1.1 as well as the Smart Sensor profile.