



UCS

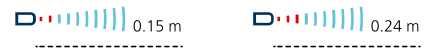
The ucs sensors in sturdy metal housing are mechanically compatible with the industrial standard of optical sensors.

HIGHLIGHTS

- › Robust metal housing › for harsh usage conditions
- › Dovetail design › for fast installation
- › Mechanically compatible with the industry standard › a true alternative to the optical sensor
- › Automatic synchronisation › for simultaneous operation of up to ten sensors in close quarters

BASICS

- › 2 anti-valent switching outputs in pnp or npn variant
- › microsonic Teach-in using a button
- › 0.1 mm resolution
- › Temperature compensation
- › 10–30 V operating voltage
- › LinkControl › for configuration of sensors from a PC




The sturdy metal housing

of the ucs sensors is mechanically compatible with the industrial standard of optical sensors.

The rotatable circular connector

allows for flexible selection of the mounting location and facilitates flexible wiring.

The ucs sensors

 are available with 2 anti-valent pnp or npn switching outputs.

With the anti-valent switching behaviour of the two switching outputs, the first output works as an NO contact and the second works complementarily as an NC contact.

The Teach-in button

on the sensor's top allows for a convenient setting of the desired detection distance and operating mode.

A dual LED

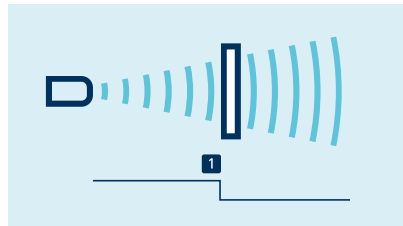
indicates the switching status of the two anti-valent switching outputs.

The ucs sensors have three operating modes:

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

The switched output is set by

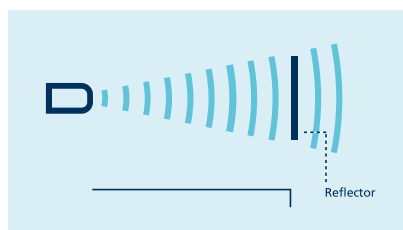
positioning the object to be detected within the desired distance **1** to the sensor, pressing the button for approx. 3 seconds and then pressing it once more for approx. 1 second. Ready.



Teach-in of a switching point

A two-way reflective barrier

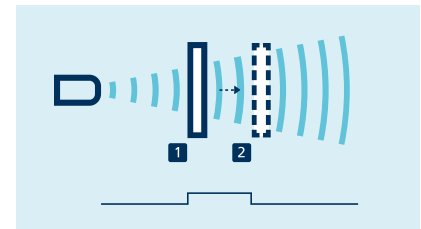
can be set with the help of a permanently mounted reflector by mounting the ucs sensor and the reflector, then pressing the button for approx. 3 seconds and then pressing it once more for approx. 10 seconds. Now, the two-way reflective barrier has been set.



Teach-in of a two-way reflective barrier

Set a window

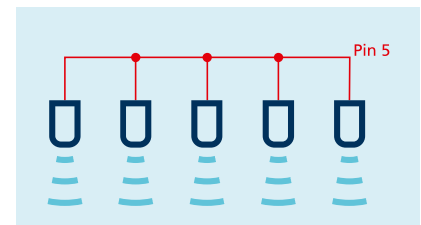
by initially positioning the object to be detected on the sensor-close window limit **1**, pressing the button for approx. 3 seconds, shifting the object to the sensor-distant window limit **2** and pressing the button once more for approx. 1 second. Ready.



Teach-in of a window with two switching points

Up to ten sensors

can be synchronised with one another. To do this, all the sensors are electrically connected on pin 5 on the M12 circular connector.



Synchronisation using pin 5

If more than ten sensors need to be synchronised, this can be carried out with the SyncBox1, which is available as an accessory.

LinkControl

optionally permits the extensive parameterisation of ucs sensors. The LCA-2 LinkControl adapter, which is available as an accessory, can be used to connect ucs sensors to the PC.



Sensor connected to the PC via LCA-2 for programming

ucs-15

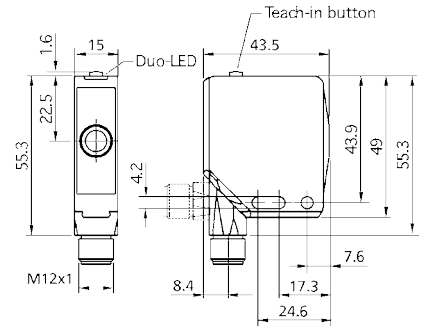
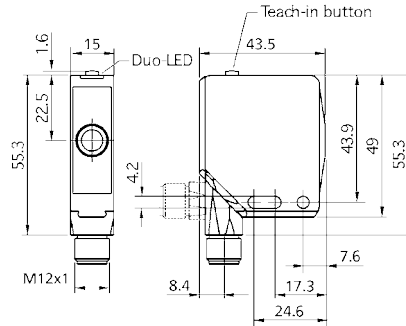
ucs-24



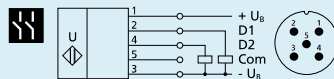
measuring range

20–250 mm

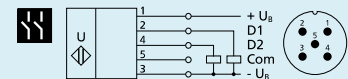
55–350 mm



| | | |
|---|--|--|
| blind zone | 20 mm | 55 mm |
| operating range | 150 mm | 240 mm |
| maximum range | 250 mm | 350 mm |
| angle of beam spread | please see i | please see i |
| transducer frequency | 380 kHz | 500 kHz |
| resolution/sampling rate | 0.056 mm | 0.056 mm |
| reproducibility | ± 0.15 % | ± 0.15 % |
| accuracy | ± 1 % (temperature drift internally compensated) | ± 1 % (temperature drift internally compensated) |
| operating voltage U_B | 10 V to 30 V DC, reverse polarity protection | 10 V to 30 V DC, reverse polarity protection |
| no-load current consumption | ≤ 30 mA | ≤ 40 mA |
| housing | zinc die-casting; plastic parts: PBT; ultrasonic transducer: polyurethane foam, epoxy resin with glass content | zinc die-casting; plastic parts: PBT; ultrasonic transducer: polyurethane foam, epoxy resin with glass content |
| class of protection according to EN 60529 | IP 67 | IP 67 |
| type of connection | 5-pin M12 initiator plug | 5-pin M12 initiator plug |
| controls | push-button | push-button |
| scope for settings | <ul style="list-style-type: none"> Teach-in via push-button LCA-2 with LinkControl | <ul style="list-style-type: none"> Teach-in via push-button LCA-2 with LinkControl |
| indicators | duo-LED, LED green: working, LED yellow: switch status | duo-LED, LED green: working, LED yellow: switch status |
| operating temperature | -25°C to +70°C | -25°C to +70°C |
| storage temperature | -40°C to +85°C | -40°C to +85°C |
| weight | 75 g | 75 g |
| switching hysteresis ¹⁾ | 2 mm | 2 mm |
| switching frequency ¹⁾ | 25 Hz | 25 Hz |
| response time ¹⁾ | 24 ms | 24 ms |
| delay prior to availability | < 300 ms | < 300 ms |
| order number | ucs-15/CDD/QM | ucs-24/CDD/QM |
| switching outputs | 2 x pnp, $U_B=2 V$, $I_{max} = 2 \times 200 mA$, NOC/NCC adjustable, anti-valent, short-circuit-proof | 2 x pnp, $U_B=2 V$, $I_{max} = 2 \times 200 mA$, NOC/NCC adjustable, anti-valent, short-circuit-proof |

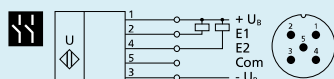


2 pnp switching outputs



2 pnp switching outputs

| | | |
|---------------------|--|--|
| order number | ucs-15/CEE/QM | ucs-24/CEE/QM |
| switching outputs | 2 x npn, $-U_B=2 V$, $I_{max} = 2 \times 200 mA$, NOC/NCC adjustable, anti-valent, short-circuit-proof | 2 x npn, $-U_B=2 V$, $I_{max} = 2 \times 200 mA$, NOC/NCC adjustable, anti-valent, short-circuit-proof |



2 npn switching outputs



2 npn switching outputs

¹⁾ Can be programmed with LinkControl.