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Sindard target pials approx. 80 VHZ Sequency Response delay Sequency Response delay Sequency Response delay Sequency Response delay Sequency Response delay Sequenc		Adjustment range	400 6000 mm	
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Linit data			$\leq \pm 1.5$ % of full-scale value	
Permissible cable length max. 300 m Permissibl			≤ 300 ms	
 Indicator soperating means LED yellow yellow. object in evaluation range green: Teach-h synchronization range green: Teach-h Model Number UCC6000-30GH70-IE2R2-V15 Ultrasonic direct detection sensor Features Alied operating voltage U₀ 24 V DC Operating voltage U₀ 25 D m A Teach-h synchronization connection, bidirectional (Face yperation of the synchronized mode)/ Teach-in input Input/output type type output 4 20 mA twitch output Synchronization options Synchronization options Synchronization options Synchronization options Synchronization options Synchronization options Can be parameterized via the ULT- frace (accessories) Diagrams aracteristic response curve w¹/¹ Ultrastic response curve w¹/¹ Unitediate string transition to the synchronization options Can be parameterized via the ULT- frace (accessories) Diagrams aracteristic response curve w¹ Ultrastic response curve w² W¹ Unitediate string Son and the synchronization to the synchronization to the synchronized mode)/ Teach-in input 4 20 mA, ascending/descen proparamable Strictling to the synchronized mode (Si Si O) Son and an anticolity option Son anticolity				
LED geen/yellow willow: object in evaluation carging green: Teach-In green: T		0	max. 300 m	
LED green/yellow green: Teach-In green: Teach Green:			switching state switch output	
C € S € Potentiometer synchronization connection Model Number 24 ∨ DC 20 30 ∨ DC (including ripple) Model Number 20 30 ∨ DC (including ripple) Rated operating voltage U ₀ 20 30 ∨ DC UIC6000-30GH70-IE2R2-V15 UItrasonic direct detection sensor Infrared Infrared Features Infrared Infrared Infrared • High chemical resistance through 1 switch output 1 switch output 1 switch output • Temperature compensation Synchronization connection timpedance 1 switch output PNP, NO (NC contact program Default setting 40 6000 mn (adjustable via potentiometer software and interface (spee Diagrams arm 0 output type 1 switch output PNP, NO (NC contact program Default setting 40 800 mn (adjustable via potentiometer software and interface (spee software and interface (sp				
A y UC 24 Y DC Model Number Rate depending voltage U _g 20 30 V DC (including ripple) With the depending voltage U _g 20 30 V DC (including ripple) Ripple ≤10 % Volced supply current U _g ≤50 mA Interface type Infrared Input impedance type for the depending voltage U _k I switch output 4 20 mA I switch output 4 20 mA I switch output 4 Siteling the depending voltage U _k I switch output 1 Switching proving and the ULT- face (accessories) Diagrams Gornal parameterized via the ULT- face (accessories) Diagrams Output type I switch output 4 20 mA, ascending/descen proving annable Voltage deph < 3.V Output type I current output 4 20 mA, ascending/descen proving annable Installation position Sing glog voltage via the dephone via the dephone via the dephone vis the depho		с, ,		
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UCC6000-30GH70-IE2R2-V15

Analog output operating mode

Switching output operating mode

switching

point 1

h1

Evaluation range

Evaluation limit A2

switching

point 2

h2

Additional Information

Evaluation limit A1

Rising ramp

__)))

Window operation mode

□)))

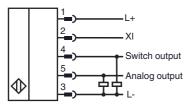
Blind zone

Blind zone

Dimensions

St x OE W 10.5 110.7

Electrical Connection



Pinout



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)
5	GY	(gray)

Refer to "General Notes Relating to Pepperl+Fuchs Product Information". Pepperl+Fuchs Group USA: +1 330 486 0001 G www.pepperl-fuchs.com fa-info@us.pepperl-fuchs.com fa



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Accessories

BF 30

Mounting flange, 30 mm

BF 5-30

Universal mounting bracket for cylindrical sensors with a diameter of 5 ... 30 mm

V15-G-2M-PUR Female cordset, M12, 5-pin, PUR cable

V15-W-2M-PUR

Female cordset, M12, 5-pin, PUR cable

UC-18/30GM-IR Interface cable

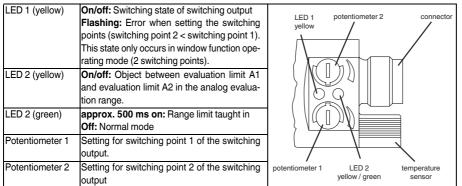
ULTRA-PROG-IR

Configuration software for ultrasonic sensors

Description of Sensor Functions

Displays and Controls

The sensor has two potentiometers and two display LEDs.



The potentiometer function described illustrates the default function. The function of the potentiometer can be altered using the ULTRA-PROG-IR software. As soon as a configuration has been changed, the potentiometer function selected using ULTRA-PROG-IR is activated.

Setting the Sensor Using the Potentiometers

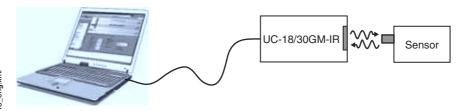
The sensor is equipped with two potentiometers. These potentiometers are assigned to the switching output by default. The switching output operates in window mode by default (2 switching points). Potentiometer 1 is used to set the near switching point of the switching window. Potentiometer 2 is used to set the distant switching point of the switching window.

Note:

The function of the potentiometer can be altered using the ULTRA-PROG-IR software. As soon as a configuration has been changed, the potentiometer function selected using ULTRA-PROG-IR is activated.

Parameterization via ULTRA-PROG-IR

In order to be able to set the sensor parameters and adjust the sensor to the respective application, the sensor is able to communicate with a PC via the integrated infrared interface. The UC-18/30GM-IR interface cable is required to allow communication via this method. This cable is connected to an unused USB port on the PC.



The ULTRA-PROG-IR parameterization software is also required for setting the sensor parameters. The ULTRA-PROG-IR software can be downloaded for free from the **www.pepperl-fuchs.com** website. The software allows all open parameters to be set, including:

- All trip points and switching hystereses
- Output modes and behaviors
- Delay times
- Settings and setting ranges of the potentiometer
- Settings for teach-in and synchronization
- Definition of blind zones
- Sensor modes and measurement methods
- Filtering measurement values
- The following service functions are also available:
- Observing and recording measurement values
- Diagnosing interference reflections

Teach-in

The sensor is equipped with a function input (XI). In order to teach in a limit value, this sensor must be parameterized as the Teach-in input using the ULTRA-PROG-IR parameterization software. This parameterization software allows you to specify what limit value is taught in.

 Refer to "General Notes Relating to Pepperl+Fuchs Product Information"

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Note:

The Teach-in function is not activated when the sensor is delivered.

Description of the Teach-in process: 1. Position an object at the required distance.

- 2. Connect the Teach-in input to L-.
- - The green LED lights up briefly after approx. 3 seconds. This indicates that the required distance has been successfully saved.
- Disconnect the Teach-in input from L-. З.

Note:

If the Teach-in input remains connected to L-, the Teach-in process is repeated every 3 seconds.

Synchronization

The sensor features a function input (XI). Using the ULTRA-PROG-IR parameterization software, this function input can be configured as a synchronization input to suppress mutual interference from external ultrasonic signals. This is illustrated in the following description. If the synchronization input is not connected, the sensor operates with internally generated cycle pulses.

External synchronization

The sensor can be synchronized by applying external rectangular pulses. The pulse duration must be ≥ 100 µs. Each rising pulse edge sends an individual ultrasonic pulse. If the signal at the synchronization input is high, the sensor reverts to the normal, unsynchronized operating mode. If a low signal is applied to the synchronization input, the sensor switches to standby. In this operating mode, the last recorded output statuses are retained.

Internal synchronization

Common mode operation

Up to ten sensors can be synchronized with each other. To do this, the synchronization inputs of the individual sensors are connected to each other. When configured in this state, all of the sensors send the ultrasonic signals together at the same time. The cycle rate corresponds to the cycle rate of the sensor with the lowest rate.

Multiplex mode

Up to ten sensors can work in multiplex mode; i.e. the sensors send their ultrasonic signals in succession. This prevents the sensor signals interfering with each other. In multiplex mode, the synchronization inputs of all sensors are connected to each other. An address must also be assigned to each sensor using the ULTRA-PROG-IR parameterization software, and the number of sensors to be synchronized must be determined. To start multiplex mode, all sensors are commissioned together by switching on the power supply.

