



## Item 339

The PH-5 mini microprocessor tester is a digital broadband device that supports all 5-wire optical and pneumatic sensors available on the market: NIEHUSER, LIBERTY, DIXON, SCULLY, OPW, CIVACON, ALFONS HAAR, etc. The device is compatible with any commercially available tester.

If you already have a tester, but you are not satisfied with its capabilities, and you do not want to buy another expensive device anymore, then the PH-5 mini is just for you.

The PH-5 mini tester is designed to work with any other sensor tester. Our proprietary tester is PH-5. We recommend it because of its complete compatibility of parameters, especially high stability of the generated pulses produced by the quartz-stabilized microprocessor. The PH-5 mini works also very well with the N17-SKG by NIEHUSER. **The PH-5 mini tester does not work independently.** It does not feed the tested sensors and does not send pulses to them. It also does not control the diagnostic line (the green wire). The PH-5 mini tester is a cheaper solution to complement your existing tester.

*The PH-5 tester we manufacture is dedicated for independent operation. This is a complete solution. However, when connected to the diagnostic plug, it does not detect defective (unstable) sensors in the system. Such an independent tester does not exist. More at: [www.andmak.pl](http://www.andmak.pl).*

Issues on sensors, testers and how they work are covered by a strange collusion of silence. Manufacturers of diagnostic equipment do not report the weaknesses of their products and the weaknesses prevail over advantages.

As we already know, marketed testers use LEDs or acoustics to signal (Civacon Model 1391) the presence of pulses. More expensive testers such as the N17-SKG signal "green"

when the parameters of the pulse generated by the sensor are within the accepted EN 13922 standard.

Please note that the basic parameters controlled by the loading terminals are the width, amplitude and frequency of the pulses generated by the sensor.

The problem is that not all manufacturers of loading equipment (terminals) comply with the EN 13922 standard. Another problem with popular testers is the lack of detection of unstable sensors.

*The EN 13922 standard is onething, but beyond this standard there are still factory sensor parameters. Each producer manufactures their sensors according to their own technical specifications!*

For example, if a new efficient NIEHUSER sensor generates pulses with a width of 1 ms, it is not good when the pulse width sensor of the same sensor is 2 ms. Such a sensor must absolutely be replaced despite its compliance with the standard (0.8 ms -2.5 ms). No other tester on the market will show this.

*Sensors, whose parameters deviate significantly from their technical parameters, result in interruption of pouring at the loading terminals!  
The deviation from the technical parameters is not baseless and is indicative of sensor damage.*

**Pulse widths for individual sensor manufacturers: CIVACON 1.7 ms, SCULLY 1.3 ms, DIXON 1.1 ms, ALFONS HAAR 2.0 ms, NIEHUSER (pneumatic) 1.6 ms, NIEHUSER (optic) 1.0 ms. It is not possible to check it using testers such as the N17-SKG.**

We have already described on our website: [www.andmak.pl](http://www.andmak.pl) how different testers work. No tester (it is not like we would want it) is so versatile. Each tester connected to the diagnostic plug of the vehicle, really only controls the last sensor in the system. This is due to the serial connection of the sensors. No tester in connection with the diagnostics plug will show us the faulty operation of the sensors mounted upstream of the last, working sensor. With that in mind, a PH-5 mini tester was created. This tester is extremely easy to use. The main sensor supply and the digital signal control are supplied by any commercially available tester connected to the diagnostic plug of the tank. Using this fact and that the GND (white) sensors conductors are connected to the mass of the tank, we use only one red wire. Connect the mini tester cable in black, by means of the clip included with the set, to the metal part of the tank. The red wire, with the included test piece, is driven into the appropriate conductor: yellow (signal input to the sensor) and blue (signal output from the sensor). **Please note that there is no need to cut off any cables.** It greatly facilitates and accelerates this work, especially when working outside, under unfavorable weather conditions. After connecting the mini tester cable the hands are free. We can then operate the sensor under test by immersing it in hot water or gently shaking it. If the sensor turns

out to be defective or unstable, changing measuring results will be noticed on the mini tester display. If these parameters go beyond the programmed range, an acoustic signal and a flashing display inform of this fact.

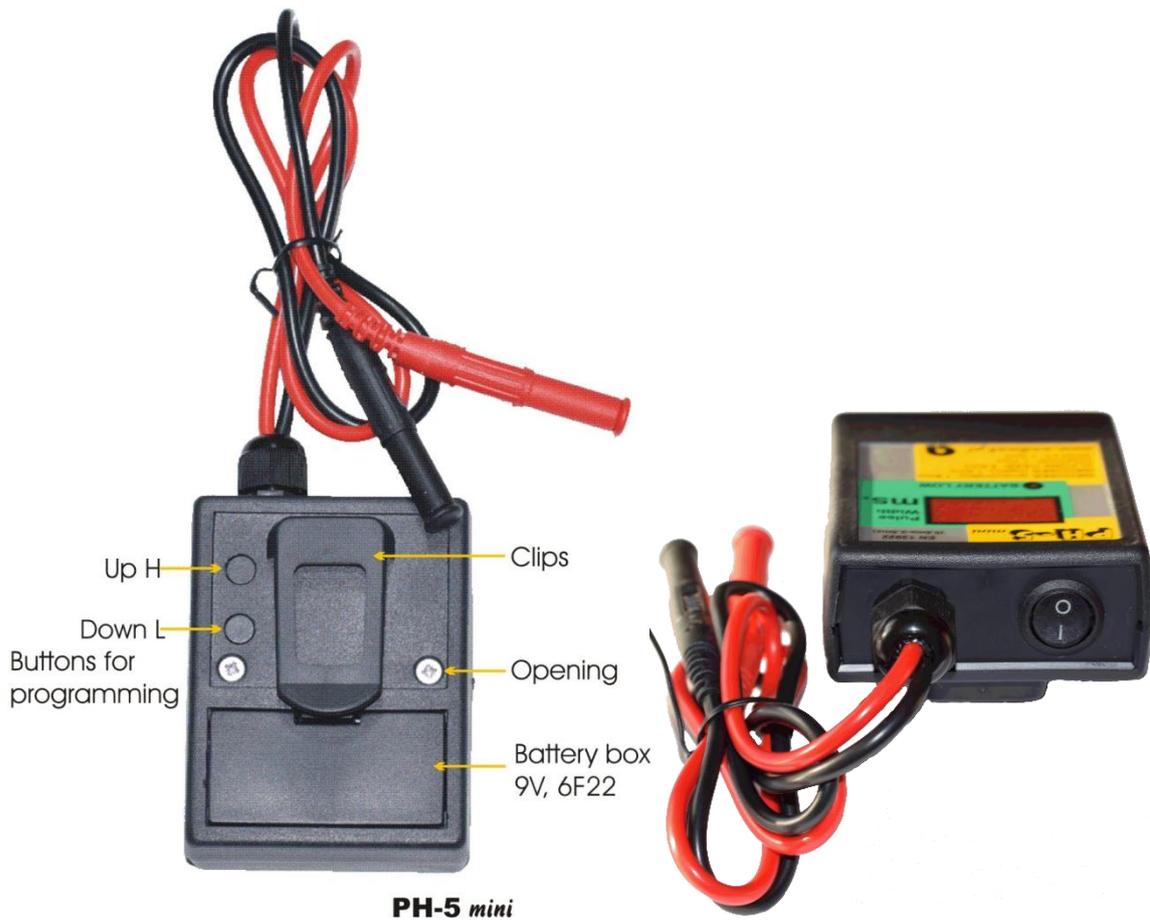
Mini Tester can be used to determine:

- Type (manufacturer) of the sensor (pulse width identification).
- First sensor in the system.
- Last sensor in the system.
- Which sensor works unstably.
- Which of the sensors has parameters different from the factory values.
- Whether the sensor indicated by the tester is actually damaged (this saves unnecessary, extra work).
- Mini tester can be used to control output pulses in other testers.

**The following are the most important features of the device:**

- ✓ 100% repeatability of measurements.
- ✓ Operating the tester with all optical and pneumatic sensors according to all standards.
- ✓ Detecting and determining instability of parameters of a given sensor.
- ✓ Detecting sensor susceptibility to external factors such as temperature and shocks.
- ✓ Detecting deviation of sensor parameters from factory parameters.
- ✓ Detecting the parameters of the sensor operating within the EN 13922 standard parameters.
- ✓ Setting any user signaling thresholds. (Two buttons on the back of the housing).
- ✓ Memory of last setting of thresholds.
- ✓ Automatic battery control. (Yellow LED lights up when the batteries run out).
- ✓ Visualization of the indications on the digital display with simultaneous acoustic signaling that sounds pleasant to the ear.
- ✓ Very small size: 83 mm X64 mm X 28 mm, and low weight.
- ✓ Long battery life.
- ✓ No need to cut multiple wires.
- ✓ Measurement of the sensor in the system without disconnection.
- ✓ Use one wire only.

## Threshold Programming Guide for PH-5 mini.



There are two round buttons at the back of the device, on the left.

The upper button is used to call the upper threshold (H) and to set the value of the currently highlighted digit.

The down button is used to call the lower threshold setting (L) and to select the digit to be changed. The digit to be changed shines brighter than the rest.

When the new values are entered, the mini tester turns off and on again in order to save the settings.

Settings will be stored permanently in non-volatile memory until re-programming!

*If the thresholds are set to the opposite, so that the upper value is entered in place of the lower threshold and the lower value in place of the upper threshold,*

*the signaling operation will change. The display will then blink during the measurement according to the settings and the acoustic signal will be heard when measuring out of settings. Reverse action.*

The whole set, excluding the battery, is covered by a full 24-month warranty. We provide express warranty and post warranty service.

Visit our company page: [www.andmak.pl](http://www.andmak.pl)

Email address: [info@andmak.pl](mailto:info@andmak.pl) 📧 mobile: (+48) 519-812-222.

