UNICONT
PLK-501
UNIVERSAL PLUG-IN DISPLAY

USER'S MANUAL

1. APPLICATION

UNICONT PLK-501 is a universal plug-in process display which is designed for transmitters with 4-20 mA output. The display is loop operated without the need of external power supply. The displayed numerical values can be freely scaled to the current input by the user, setting the maximum and the minimum value.

The display unit is suitable for standard 2-wire transmitters with ISO 4400 connection. The display can be assembled between the sensor part and the connector socket of devices such as in case of the **NIPRESS D** hydrostatic pressure transmitters, or **AnaCONT LCK** conductivity transmitters.

2. TECHNICAL DATA
2.1 GENERAL

Type	UNICONT	
	PLK-501-2	**PLK-501-3**
System connection	2-wire DC	
Input	4-20 mA (current loop)	
Output	Display	Display + PNP open collector switch, max. rating: 125 mA
Display	4-digit, 7.6 mm LED display	
Set up range	- 1999…+ 9999	
Damping time	0.3…30 sec	
Display accuracy	0.1% ± 1 digit	
Voltage drop	≤ 6 V	
Ambient temperature	-25 °C ... + 85 °C	
Electrical protection	Class III.	
Electric connection	ISO 4400 connector	
Ingress protection	IP65	
Dimensions	47 x 47 x 68 mm	
Mass	~ 100 g	

2.2 ACCESSORIES

- User's manual
- Warranty Card
- Declaration of Conformity
- Stick-on measure unit label kit
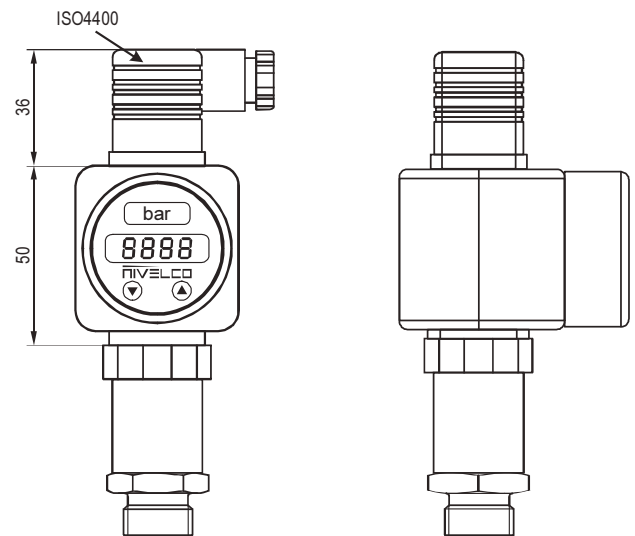- Stick-on front panel
- Assembly screw
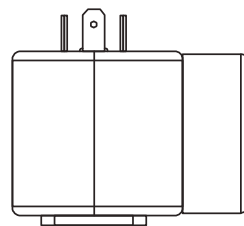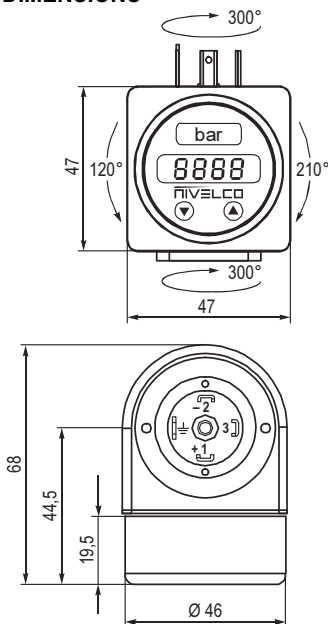
2.3 ORDER CODE

UNICONT PLK – 501 – ☐

FUNCTION / OUTPUT	CODE
Display	**2**
Display / PNP switch output	**3**

3 DIMENSIONS

Plug-in display with pressure transmitter

4. MOUNTING

Plug the display unit between the sensor's connector (standard ISO 4400) and the socket when the wires are connected, than fix the three parts with the assembly screw. Pay attention for the proper sealing between the parts!

Choose the right measuring unit label from the kit and stick it on the appropriate location. Then stick on the front panel label. Be careful with its positioning and check that the buttons can be pushed easily.
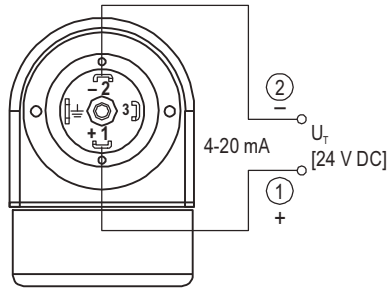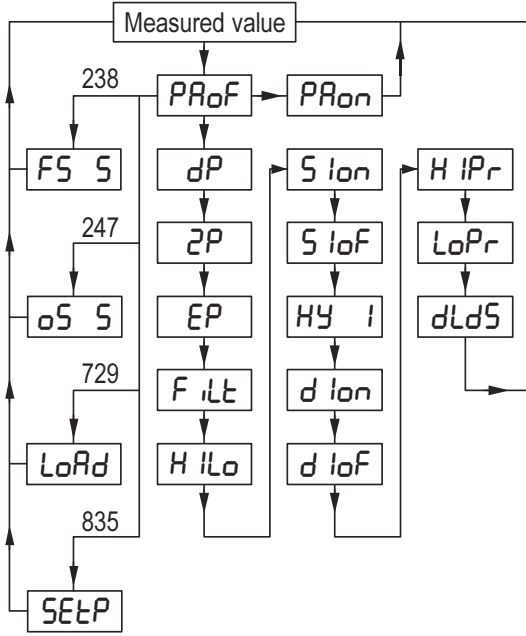
5. WIRING

The wires can be connected after the socket is disassembled.

Lead the cable through the cable gland before fixing the wires into the terminals.

6. SETTING UP THE DISPLAY

The displayed values should be adjusted to the 4-20 mA loop current that flows through the unit (scaling process). This can be performed with the help of the two buttons on the front panel.

The UNICONT PLK-501 unit offers numerous configuration menu points.

Entering the configuration menu and navigation between the menu points is done by the UP and DOWN arrow buttons.

Entering and returning from the menu points is done by pressing the two buttons simultaneously.

Front panel

DOWN   UP

Programming buttons

7. PROGRAMMING
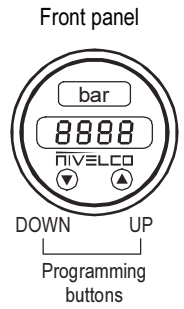
LoAd Loading factory default settings:
Enter the **PRoF** menu point then push both buttons and set "729" value to appear the **LoAd** special function. By pressing both buttons simultaneously the unit loads the factory default settings except the security code.

SEtP Setting the security code:
Enter the **PRoF** menu point then push both buttons and set "835" value to display the **SEtP** special function. Set the password using the ▲ or ▼ buttons (0 ... 9999 are permissible, the code numbers: 0238, 0247, 0729, 0835 are exempt); confirm the password by pushing both buttons simultaneously.

PRoF Security code OFF (default):
Entering this menu point the default value of "1" appears. Changing this value to "0" (the default security code) the security code becomes active disabling further programming. After exiting the menu point the display shows: **PRon**.
Pressing the two buttons simultaneously enters the menu point and performs save-and-exit command.

PRon Security code ON, programming disabled:
Entering this menu point the default value of „1" appears. Entering the valid security code will enable programming. After exiting the menu point the display shows: **PRoF**.

dP Setting the decimal point position:
Enter with pushing both buttons simultaneously - set the position – save/exit.

2P Set zero point: Setting the value corresponding to 4 mA

EP Set end point: Setting the value corresponding to 20 mA

F ILt Set damping: Input signal filter, adjustable between 0.3 - 30sec

H ILo Not applicable

S Ion Set switch-on point: set the value for switching on the output switch

S IoF Set switch-off point: set the value for switching off the output switch

HY I / **CP I** Hysteresis/Compare: Select hysteresis or compare mode for the output switch

d Ion / **d IoF** Set switch-on/ switch-off delay:
Set switch-on (**d Ion**), and switch-off (**d IoF**) delay time for the switch output. The value of the delay can be set between 0 – 100 s.

H IPr / **LoPr** Maximum / minimum value display:
Display the maximum (**H IPr**) and minimum (**LoPr**) measured value during the measurement process. The value will not remain stored if the power supply is interrupted. The stored value can be deleted with pressing both buttons simultaneously.

dLdS Measured value update (display):
Set the length of the update cycles for the display. Can be set between 0 – 100 s.

FS S Full Scale compensation:
Enter the **PRoF** menu point then push both buttons and set "238" value to display the **FS S** special function. To set the full scale compensation it is necessary to put the sensor into the medium to be measured (it should correspond to the end point of the measuring range), and push both buttons to store the measured value.
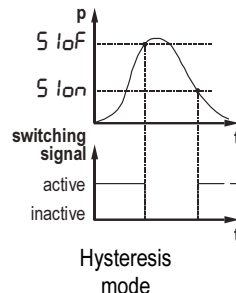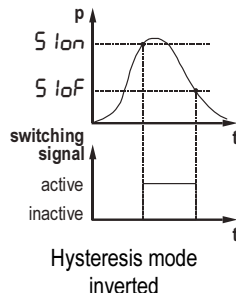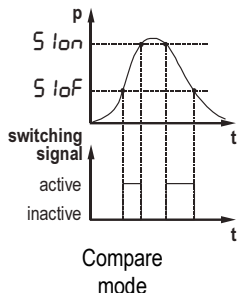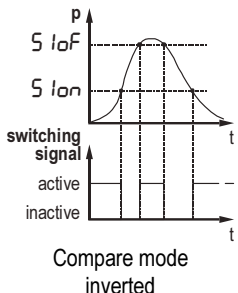The set end point will appear on the display.

oF S Offset compensation:
Enter the **PRoF** menu point then push both buttons and set "247" value to display the **oF S** special function. To set the offset compensation it is necessary to put the sensor into the medium to be measured (it should correspond to the zero point of the measuring range), and push both buttons to store the measured value.
The set zero point will appear on the display.

8. SWITCH OUTPUT

Description of hysteresis and compare modes.
To invert the respective modes the values of the switch-on (**S Ion**) and switch-off (**S IoF**) points should be exchanged.

Compare mode inverted

Compare mode

Hysteresis mode inverted

Hysteresis mode

9. MAINTENANCE, REPAIR

The unit does not require regular maintenance. All repairs will be carried out at the manufacturer's premises.

10. STORAGE CONDITIONS

Ambient temperature: –25°C...+85°C

11. WARRANTY

NIVELCO provides warranty of 3 (three) years in compliance with details described in the Warranty Card.