

GENERAL DESCRIPTION

The UNICONT series 2-wire passive loop-indicators are universally scalable process value indicators of NIVELCO, operating without the need for power supply. The process indicators find their use where the process value has no control function (such as switching ON/OFF, pressure control, etc.). The 3-wire HART converter type UNICONT devices offer the optimal solution where local displaying is needed besides the remote data processing and the field transmitters having 4–20 mA output are needed to be integrated into HART multidrop system. The devices are applicable not only for NIVELCO transmitters, but for all transmitters which use standard 4–20 mA output. The UNICONT PDF devices are digital, 2-wire passive / 3-wire active, field process indicators suitable for indication of temperature, pressure, level, etc. values with 6 digit SAP-202 LCD display. Explosion proof versions are available for hazardous environments. The HART capable UNICONT PDF 3-wire process indicators require additional power supply. Besides displaying the loop current or the process values, these units convert input current to HART signals and so enable devices that have analogue outputs only to be integrated into HART multidrop systems. Robust enclosure makes applications under harsh conditions also possible. The UNICONT PDF-600 series with flameproof (Ex d approved) stainless steel housing meets the special requirements of certain industry segments, such as Food and Beverage, Marine, Oil and Gas.

MAIN FEATURES

- 4–20 mA input
- 2-wire loop indicator
- 3-wire 4–20 mA + HART transmitter
- Wall mountable
- Scalable display
- IP67 protection
- Ex version

APPLICATIONS

- General indicator
- Suitable for 4–20 mA transmitters
- 4–20 mA – HART converter
- Displaying level, volume, temperature, pressure, etc.

CERTIFICATIONS

- ATEX approved (Ex ia)
- ATEX approved (Ex d)
- ATEX approved (Ex d+ia)

UNICONT PDF-400 Ex
with flameproof
aluminum housing

UNICONT PDF-500
with plastic housing



UNICONT PDF-600 Ex
with flameproof
stainless steel housing

Symbols on the display module:

- **US** – imperial engineering system
- **M** – metric (Eu) engineering system
- **°F, °C, m, cm, in, ft, l, m³, gal, ft³**
- **PROG** – programming mode

Displayed values:

- **DIST** – distance
- **LEV** – level
- **VOL** – volume
- **%** – percentage
- **mA** and **°C** – current and temperature
- **▲ ▼** – arrow (shows the selected symbol)

PLUG-IN LOOP INDICATORS

UNICONT PLK

GENERAL DESCRIPTION

The UNICONT PLK-501 type plug-in displays with 4 digit LED indicator can be connected to the 2-wire transmitters with its ISO 4400 connector (such as NIPRESS pressure gauge / transmitter, AnaCONT LCK conductivity transmitter). The displayed numerical values can be freely scaled to the current input by the user, setting the maximum and the minimum value.

MAIN FEATURES

- 4 - 20 mA input
- 4-digit LED indicator
- Rotatable display
- Operation without external power
- PNP switch output
- IP65 protection

APPLICATIONS

- Mountable between standard ISO 4400 connectors
- For 2-wire transmitters with 4-20 mA output



PLK-501

TECHNICAL DATA

Type	Standard PDF-401-2 PDF-501-2	Ex version PDF-401-6 Ex PDF-401-A Ex PDF-401-C Ex PDF-601-A Ex	Standard with HART output P□F-401-4 P□F-501-4	Ex version with HART output P□F-401-8 Ex P□F-401-B Ex P□F-401-D Ex P□F-601-B Ex
Powering	2-wire		3-wire	
Measured value (input signal)	4-20 mA current loop			
Measurement range	3.6 - 22 mA		0 - 22 mA	
Output	4-20 mA current loop		4-20 mA and/or HART for 4-20 mA current limit values: 3.9-20.5 mA terminal resistor for HART: R _{term} = 250 Ω	
Power supply	-		10V - 36 V DC	
Display	SAP-202 display, Range of displayed value: -9999 ... +29999			
Accuracy	± 0.1 % if displayed value is > 10000; ± 0.2% if displayed value is < 10000			
Temperature error	± 0.05 % / 10°K			
Voltage drop	< 1.6 V		< 1 V	
Overvoltage capability	50 mA			
Damping time	Selectable: 3 s, 5 s, 10 s or 20 s			
Ambient temperature	Standard: -40 °F to +158 °F, with display: -13 °F to +158 °F; Ex type: see "Special data for Ex certified models" table			
Electrical connection	Standard: M20x1.5 cable gland, cable diameter: Ø 0.25 ... 0.5 inch; Ex type: see "Special data for Ex certified models" table			
Electrical protection	Class III			
Ingress protection	IP67			
Housing	Paint coated aluminum or plastic PBT	Paint coated aluminum or stainless steel	Paint coated aluminum or plastic PBT	Paint coated aluminum or stainless steel
Mass	With aluminum housing: ≈ 2 lb			
	With plastic housing: ≈ 1.25 lb	With st. steel housing: ≈ 5.5 lb	With plastic housing: ≈ 1.25 lb	With st. steel housing: ≈ 5.5 lb

SPECIAL DATA FOR Ex CERTIFIED MODELS

Type	PDF-401-6 Ex PDF-501-6 Ex	P□F-401-8 Ex P□F-501-8 Ex	P□F-401-D Ex	PDF-401-C Ex	PDF-401-A Ex / P□F-401-B Ex PDF-601-A Ex / P□F-601-B Ex
Protection type	Intrinsically safe		Intrinsically safe with flameproof enclosure		Flameproof enclosure
Ex marking	See: www.nivelco.com				
Intrinsically safe limit data					
Electrical connection	PDF-500: Plastic M20x1.5 cable glands, cable: Ø 0.25"... 0.5" PDF-400: Metal M20x1.5 cable glands, cable: Ø 0.3"... 0.55"		Metal M20 x1.5 cable glands for Ø 0.35" ... 0.5" cable		
	Shielded twisted cable with AWG20 ... AWG16 wire cross section				
Ambient temperature	-13 °F to +158 °F	-40 °F to +158 °F, with display: -13 °F to +158 °F		-13 °F to +158 °F	

PLUG-IN LOOP INDICATORS

UNICONT PLK

TECHNICAL DATA

Type	PLK-501-2, PLK-501-3
Input	4 - 20 mA
Output	PNP open collector switch, max. rating: 125 mA
Display	4-digit LED with 0.3 inch height
Ambient temperature	32 °F to +158 °F
Setting range	-1999 ... +9999
Delay	0.3 ... 30 s
Electrical protection	Class III.
Ingress protection	IP65
Electrical connection	ISO 4400 connector
Housing	Plastic
Mass	≈ 0.22 lb



UNICONT PDF/PTF-400/500/600

Wall mountable universally scalable 2-wire passive process value indicators and 3-wire active field loop current display / HART converter units, input: 4-20 mA

Version

P F - 0 1 -

T	Without local LCD display
D	With local LCD display

Housing

P F - 0 1 -

4	Aluminium (paint coated)
5	Plastic, PBT, glass fibre reinforced
6	Stainless steel (only Ex d version)

Output / Approval

P F - 0 1 -

2	-
4	4-20 mA + HART
6	- / Ex ia
8	4-20 mA + HART / Ex ia
A	- / Ex d
B	4-20 mA + HART / Ex d
C	- / Ex d + ia
D	4-20 mA + HART / Ex d + ia

Accessories to order (see relevant page for details)

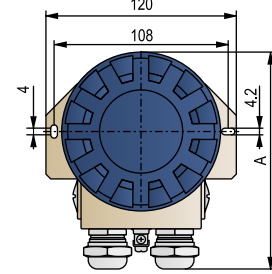
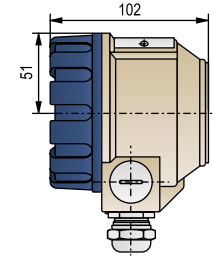
S A P - 2 0 2 - 0	Plug-in display module
S A T - 3 0 4 - 0	HART-USB modem
S A K - 3 0 5 - 2	HART-USB/RS485 modem
S A K - 3 0 5 - 6	HART-USB/RS485 modem / Ex ia

UNICONT PLK-501

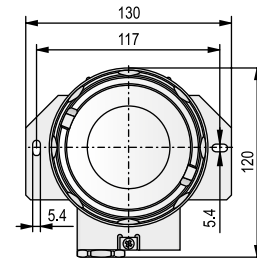
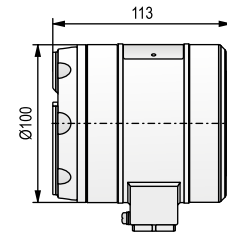
2-wire plug-in loop indicator can be inserted between connectors according to DIN43650, input: 4-20 mA, output: 4-20 mA

Type

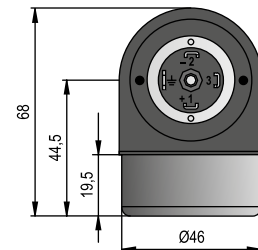
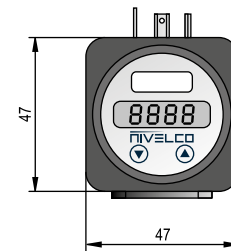
P L K - 5 0 1 - 2	Plug-in indicator
P L K - 5 0 1 - 3	Plug-in indicator with PNP output



PDF-401 / 501



PDF-601



PLK-501