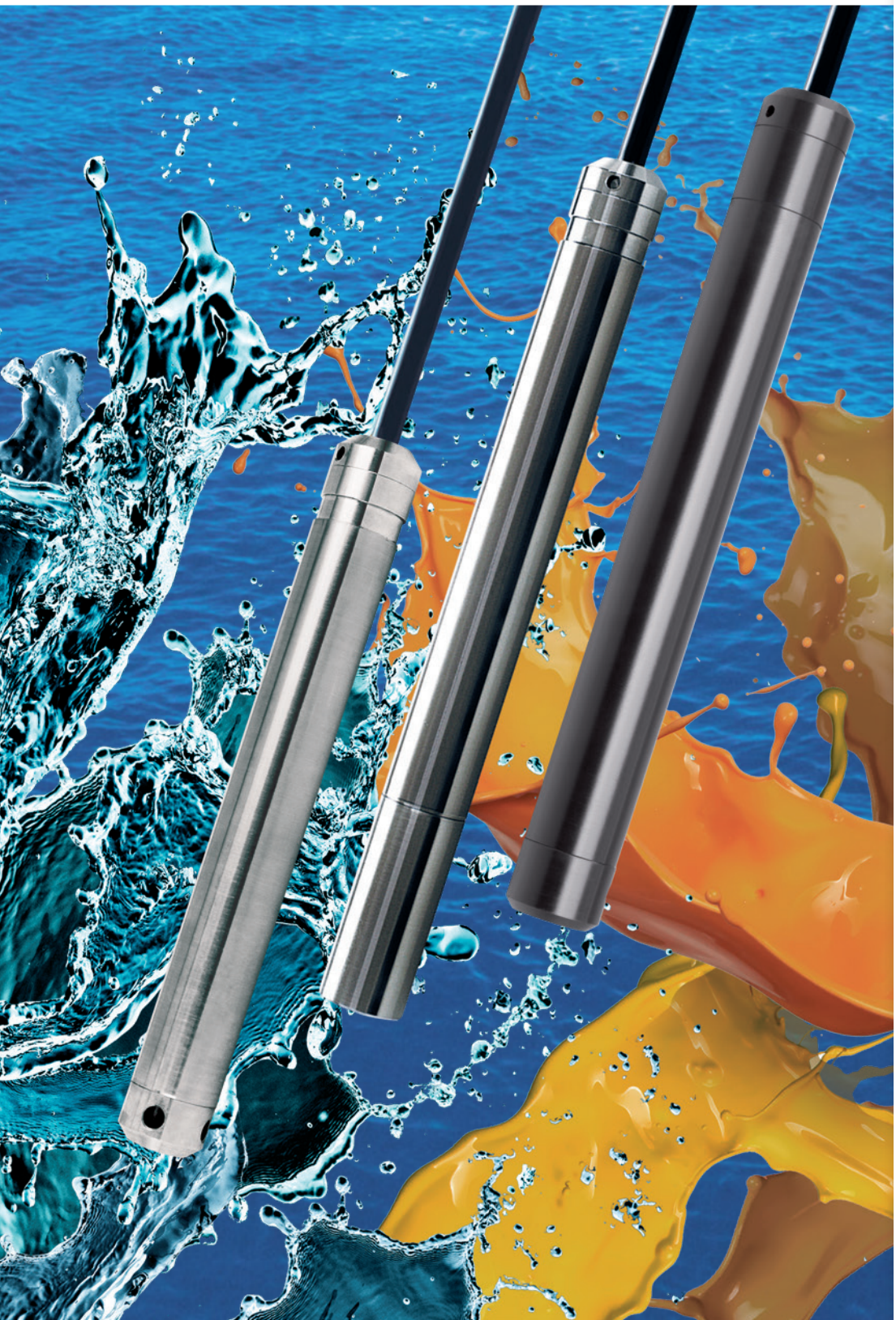
NIVOPRESS N

HYDROSTATIC LEVEL TRANSMITTERS
FOR CLEAN WATER AND SEWAGE WATER



5 YEARS WARRANTY

NIVELCO

LEVEL TRANSMITTERS

MAIN FEATURES

- Measuring range up to 200 m (656 ft)
- IP68 protection
- Remote programmable
- Submersible or screw-in types
- Ø22 / 24 mm (Ø0.85 / 1 inch) tube
- HART® communication
- 2- or 3-wire versions
- 2x 4 – 20 mA output (level + temperature)
- Built-in Pt100 temperature sensor
- Overvoltage and inverse polarity protection
- Wide range of accessories
- Ex version
- Can be certified for potable water
- Available with capacitance ceramic, piezorezistive stainless steel or ceramic sensor

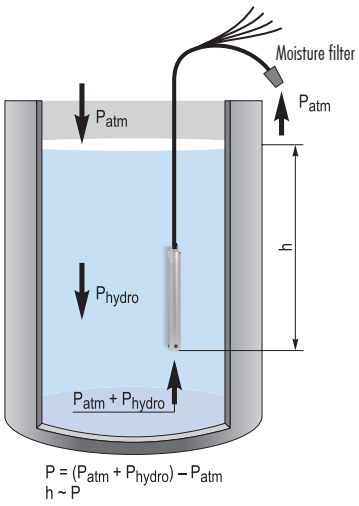
APPLICATIONS

- Level and temperature measurement of drinking water wells, tanks, pools
- Submersible pump control
- Screw-in submersible type with IP68 protection for applications with risk of flooding
- Clean or slightly contaminated liquids
- Sewage, wastewater
- Draw-down protection
- Sewage lift station control
- Saline solutions, seawater

CERTIFICATIONS

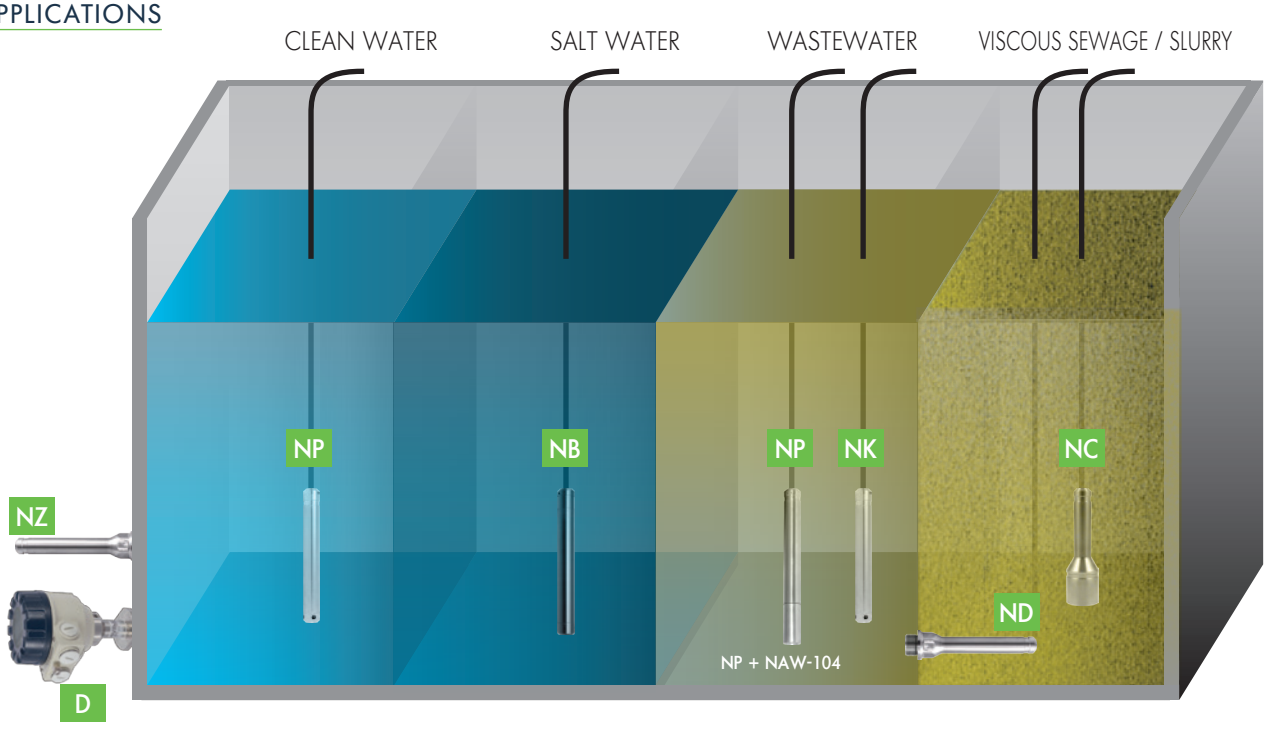
- ATEX (Ex ia)

GENERAL DESCRIPTION



The **NIVOPRESS N** hydrostatic borehole level transmitters are designed to measure the level of clean or contaminated liquids. The pressure sensor at the bottom of the probe measures the hydrostatic pressure (P_{hydr}) of the liquid column above it and compares with the atmospheric pressure (P_{atm}). The atmospheric pressure is led to the sensor through a breathing capillary which is equipped with a moisture filter that prevents the moisture reaching the electronics and decreasing the accuracy of the measurement. This enables the atmospheric pressure to be subtracted from the measured pressure to get the hydrostatic pressure which is proportional to the height of the liquid column (h). The electronics converts the sensor's signal into an output signal. If temperature measurement (of the liquid) is needed beside the level measurement a combined (level + temperature) transmitter should be used. The installation and wiring of the transmitter is helped by the wide variety of accessories. A sewage adapter working on the principle of the diving bell can be snapped **(NP)** or can be screwed **(NZ)** into the place of the protecting cap to avoid the direct contact between the sensor and the measured contaminated liquid. An extra mechanical protection is built in the **NZ** type sewage adapters in the form of a mechanical filter. The **N-500** types can be used in hazardous environments. The **NZ** screw-in type transmitters are recommended for applications where there is a risk of flooding. The **NB / NG** plastic housing types are designed for those applications where the aggressive medium (e.g. saline solutions or seawater) could cause galvanic corrosion of the stainless steel body.

APPLICATIONS



TECHNICAL DATA

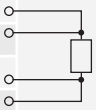
Type		2-wire				3-wire
		NB, NG	NK, NN / ND, NH	NC, NT	NP, NF / NZ, NR	NPH, NFH / NZH, NRH
Sensor type	Principle	Piezoresistive		Capacitance	Piezoresistive	
	Material	Ceramic			Stainless steel	
Housing		Plastic	Stainless steel			
Measuring range		0 – 20 m (0 – 65 ft) water head			0 – 200 m (0 – 656 ft) water head	
		As per order code; the current output can be customized in the pressure range from 2% to 130% with remote programming				
Overload allowed (versus range)		3x		20x (h ≤ 3 mH_2O) 10x (h > 3 mH_2O)	3x	
Output		4 – 20 mA + HART®		4 – 20 mA	4 – 20 mA + HART®	0 – 10 V (0 V ≤ 80 mV) measured to the power supply
Power supply		12 – 30 V DC				18 – 30 V DC / 6 mA
Temperature measurement		NPD and NZD types 2-wire 4 – 20 mA output (power supply: 12 – 30 V DC), 0 °C … +60 °C (32 °F … 140 °F), accuracy: ±3 °C (±5,4 °F)				–
		N□P types: 4-wire Pt100 B temperature sensor. Other types with HART® output: temperature can be queried as HART® Secondary Value, 0 °C … +60 °C (32 °F … 140 °F), accuracy: ±3 °C (±5,4 °F)				
Linearity error (level)		±0.45%		±0.25%		
Temperature error		≤ ±0.1% / 10 K				≤ ±0.2% / 10 K
Process temperature [1]		-30 °C … +60 °C (-22 °F … 140 °F)				
Process connection		NAA-209 cable mounting wedge clamp, NZ, NR, ND, NH types: ¾" BSP thread				
Ingress protection		IP68				
Electrical protection		Class III				
Electrical connection		Shielded cable with breathing capillary				
Cable		Ø7 mm; 0.34 mm^2 (Ø0.275 inch; AWG22)				
Cable length		0 – 300 m (0 – 985 ft) as order code				
Dimensions		Ø24 x 212 mm	NK, NN: Ø22 x 173 mm (Ø0.87 x 6.8 inch) ND, NH: Ø38 x 174 mm (Ø1.5 x 6.85 inch)	Ø40 x 146 mm (Ø1.55 x 5.75 inch)	NP, NF: Ø22 x 173 mm (Ø0.87 x 6.8 inch) NZ, NR: Ø38 x 174 mm (Ø1.5 x 6.85 inch)	
Mass		Probe: 0.2 kg (0.44 lb)	NK, NN: Probe: 0.2 kg (0.44 lb) ND, NH: Probe: 0.3 kg (0.66 lb)	Probe: 0.4 kg (0.88 lb)	NP, NF: Probe: 0.2 kg (0.44 lb) NZ, NR: Probe: 0.3 kg (0.66 lb)	
Material of wetted parts	Sensor	Al_2O_3			1.4404 (316L)	
	Housing	POM	1.4571 (316Ti)			
	Cable coating	Polyurethane (PUR) or FEP				
	Sealings	Viton® (FKM)				
	Protecting cap	POM	1.4571 (316Ti)	–	1.4571 (316Ti)	

[1] High temperature (up to +75°C (167 °F)) version is available on special request

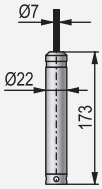
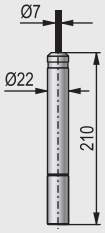
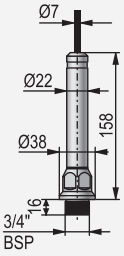
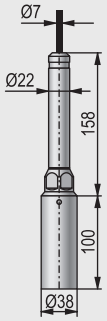
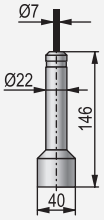
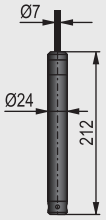
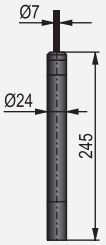
SPECIAL DATA FOR Ex CERTIFIED MODELS

Type	NP / NF / NZ / NR / NK / NN / ND / NH□-□□5-□Ex
Protection type	Intrinsically safe
Ex marking	Up to 100 m (328 feet) cable length: ⟨Ex⟩ II 1G Ex ia IIC T6 Ga, between 100 m (328 feet) and 300 m (985 feet) cable length: ⟨Ex⟩ II 1G Ex ia IIB T6 Ga
Intrinsically safe data	Ui = 30 V, Ii = 100 mA, Pi = 0.8 W for IIC gas group: Ci ≤ 52 nF, Li ≤ 1.4 mH (calculated with 100 m [328 feet] integrated cable), for IIB gas group: Ci ≤ 132 nF, Li ≤ 1.6 mH
Power supply	14 – 30 V DC
Operation temperature range	-30 °C … +60 °C (-22 °F … 140 °F)

WIRING

Cable wire \ Type		N□K	N□H	N□D	N□P
1	yellow	⏚	⏚	⏚	⏚
2	red	I+	U+	I+	I+
3	black / blue	I-	U-	I-	I-
4	uncolored	–	U_{out}	I + (°C)	 Pt100
6	black	–	–	–	
7	black / red	–	–	–	
5	uncolored / blue	–	–	I - (°C)	
L	breathing capillary with moisture filter	L	L	L	L

DIMENSIONS

NP / NK	NP / NK + NAW-104	NZ / ND	NZ / ND +NAZ-103	NC	NB / NG	NB / NG + NAW-107
						

ACCESSORIES

A wide range of accessories make an easier and safer installation and usage of the NIVOPRESS N hydrostatic level transmitters.

NAA-101: Cable terminal box with moisture filter and terminals for wiring the unit

NAA-102: Cable terminal box with moisture filter and terminals with built-in OVP-22/33 type overvoltage protection unit for wiring the level transmitter

NAA-209: Cable mounting wedge clamp

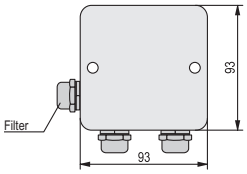
OVP-22/33: Outdoor overvoltage protection unit for use in 4 – 20 mA loop with IP54 protection

OVP-32/33: Indoor overvoltage protection unit for use in 4 – 20 mA loop with IP20 protection, EN 60715 rail mountable type

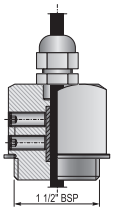
NAW-104, NAW-107, NAZ-103: Sewage adapter made from 1.4571 (316Ti) stainless steel or plastic (POM). The NP / NK / NB type probes can be equipped with the suitable sewage adapter (NAW-104 or NAW-107) by snapping instead of the sensor protective cap. The NAZ-103 type sewage adapters can be screwed to the NZ / ND types with ¾" threaded process connection. The air layer below the sewage adapter helps to avoid the direct contact between the sensor and the measured contaminated liquid.

NAA-105, NAA-106: Cable sliding sleeve with 1½" BSP or NPT thread; material: st. steel 1.4571 (316Ti)

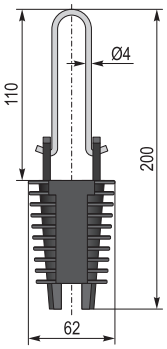
NAA-101/102



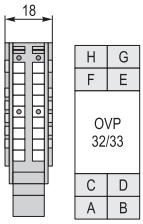
NAA-105



NAA-209

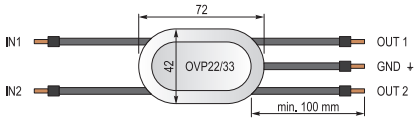


OVP-32/33



IN_1 (C) ; IN_2 (D); Out_1(F); Out_2(E); A, B, H, G = ⏚

OVP-22/33

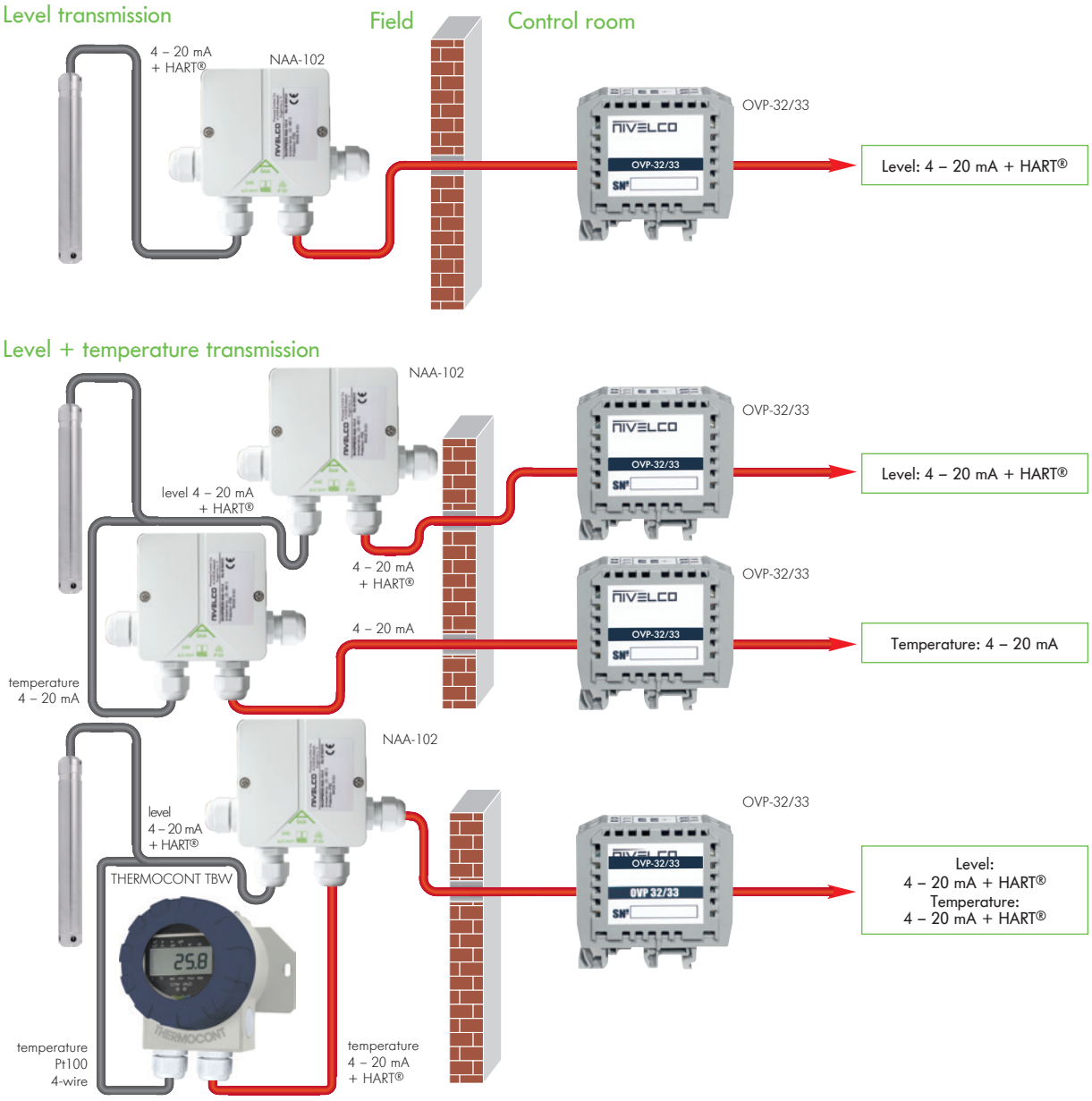


Technical data of the accessories

Cable terminal box	NAA-101	
Dimensions	93 x 93 x 55 mm (3.66 x 3.66 x 2.16 inch)	
Ingress protection	IP65	
Operating temperature	-40 °C … +70 °C (-40 °F … +158 °F)	
Material	Plastic	
Cable gland	M20x1.5 (cable Ø5 – 10 mm (0.2 – 0.4 inch)	
Electrical connection	Terminal block for cable with max. cross section of 2.5 mm² (AWG13)	
Cable terminal box with overvoltage protection	**NAA-102[(2)]**	
Data	See NAA-101	
Electrical Data	See OVP	
Cable mounting wedge clamp	**NAA-209**	
Max. mechanical load	300 m (985 ft) cable	
Material	Polyamide, stainless steel wedge clamp	
Operating temperature	-20 °C … + 60 °C (-4 °F … +140 °F)	
Overvoltage protection unit	**OVP-22/33[(2)]**	**OVP-32/33[(2)]**
Type	field use	EN 60715 rail mountable
Dimensions	72 x 42 x 19 mm (2.8 x 1.65 x 0.75 inch)	62 x 65 x 18 mm (2.44 x 2.56 x 0.7 inch)
Ingress protection	IP54	IP20
Breakdown voltage	33 V	
Absorbed energy	600 W / 1 ms	
Serial resistance	13 Ω	
Leakage current	≤10 µA	

(2) Only for 2-wire 4 – 20 mA equipments!

MEASURING CIRCUITS



NIVOPRESS N TRANSMITTERS IN SYSTEM WITH A PC

Instruments with HART® output can be connected to a PC interfaced by a **UNICOMM** HART®-USB modem, or can be connected wirelessly with the SAT-504 HART®-Bluetooth® modem. A HART® multidrop loop can consist of a maximum of 15 transmitters. All measured values can be visualized and/or the **NIVOPRESS N** transmitters can be remote programmed by the PC. Applicable software: **EView2** configuration software or **NIVISION** process visualization software.

NIVOPRESS N TRANSMITTERS IN HART® MULTIDROP LOOP

The **MultiCONT** processes and displays measurement data supplied by NIVELCO's HART® equipped transmitters connected to a Multidrop loop. Up to 15 transmitters (also mixed models) can be connected and remote programming can be also performed through the **MultiCONT**. Re-transmission of the data is possible via RS485 communication line to a PC or PLC when needed.

ORDER CODES (NOT ALL COMBINATIONS AVAILABLE)

NIVOPRESS N hydrostatic level transmitters

NIVOPRESS N ☐☐-☐☐☐-☐ (1)

Sensor / housing (conn.) / cable		Code
Stainless steel	Piezoresistive sensor	
	S. steel housing / PUR	P
	S. steel housing / FEP	F
	S.s. housing, threaded / PUR	Z
	S.s. housing, threaded / FEP	R
Ceramic[3]	S. steel housing / PUR	K
	S. steel housing / FEP	N
	S.s. housing, threaded / PUR	D
	S.s. housing, threaded / FEP	H
	POM housing / PUR	B
	POM housing / FEP	G
	Capacitive sensor	
	S. steel housing / PUR	C[2]
	S. steel housing / FEP	T

Version	Code
Normal – with ceramic sensor	2[3]
Normal – with piezo sensor	4
Ex – with piezo sensor	5[5]

Range[4]	Code
0 – 1 mvo (0 – 100 mbar)	1
0 – 2 mvo (0 – 200 mbar)	2
0 – 5 mvo (0 – 500 mbar)	3
0 – 10 mvo (0 – 1000 mbar)	4
0 – 20 mvo (0 – 2000 mbar)	5
0 – 50 mvo (0 – 5000 mbar)	6
0 – 100 mvo (0 – 10 000 mbar)	7
0 – 200 mvo (0 – 20 000 mbar)	8

Code	Cable length		Code
0	0 m (0 ft)	until 100 m	0 m (0 ft) 0
1	10 m (32.8 ft)		1 m (3.28 ft) 1
2	20 m (65.6 ft)		2 m (6.56 ft) 2
3	30 m (98.4 ft)		3 m (9.84 ft) 3
4	40 m (131.2 ft)		4 m (13.12 ft) 4
5	50 m (164 ft)		5 m (16.4 ft) 5
6	60 m (196.8 ft)		6 m (19.68 ft) 6
7	70 m (229.6 ft)		7 m (22.96 ft) 7
8	80 m (262 ft)		8 m (26.2 ft) 8
9	90 m (295 ft)		9 m (29.5 ft) 9
A	100 m (328 ft)	over 100 m	0 m (0 ft) 0
B	200 m (656 ft)		10 m (32.8 ft) 1
C	300 m (985 ft)		20 m (65.6 ft) 2
			30 m (98.4 ft) 3
			40 m (131.2 ft) 4
			50 m (164 ft) 5
			60 m (196.8 ft) 6
			70 m (229.6 ft) 7
			80 m (262 ft) 8
			90 m (295 ft) 9

Output	Code
4 – 20 mA + HART®[6]	K
0 – 10 V DC[2][7]	H
Level: 4 – 20 mA + HART® Temperature: 4 – 20 mA[2][7]	D
Level: 4 – 20 mA + HART® Temperature: Pt100[6]	P

[1] *The order code of an Ex version should end in 'Ex'*

[2] *Not available in Ex version*

[3] *For maximum 20 m (65 ft) water height*

[4] *For HART capable units the current output can be customized in the pressure range from 2% to 130% with remote programming*

[5] *NB, NG: Ex version not available*

[6] *HART communication is not available for N☐K-200 and N☐P-200 types*

[7] *Only with stainless steel sensor*

ACCESSORIES AND AUXILIARY DEVICES TO ORDER

Accessories	NAA-101	Cable terminal box with moisture filter
	NAA-102	Cable terminal box with moisture filter with OVP 22/33 (only for 2-wire types)
	NAW-104	Sewage adapter, can be mounted instead of the protective cap (stainless steel)
	NAW-107	Sewage adapter, can be mounted instead of the protective cap (plastic – POM)
	NAZ-103	Sewage adapter (for ¾" threaded process connection (stainless steel)
	NAA-105	Cable sliding sleeve with cable gland and 1½" BSP thread
	NAA-106	Cable sliding sleeve with cable gland and 1½" NPT thread
	NAA-209	Cable mounting unit with stainless steel wedge clamp
	OVP-22/33	IP54 rated outdoor overvoltage protection unit for 4 – 20 mA loop
	OVP-32/33	IP20 rated indoor overvoltage protection unit for 4 – 20 mA loop, rail mountable
Auxiliary devices	MultiCONT P-200	Multichannel process controller / display unit, wall mountable
	NIPOWER PPK-331	24 V DC power supply unit, rail mountable
	THERMOCONT TBW-500	Field display / temperature transmitter unit for Pt100 sensor output, wall mountable
	UNICONT PKK-312	Current controlled limit switch with SPDT relay output, rail mountable
	UNICONT PDF-401	Universal current loop indicator for 4 – 20 mA transmitters, wall mountable
	UNICONT PMM-511	Universal controller / display panel unit
	UNICONT PGK-301 Ex	Intrinsically safe isolator power supply unit, rail mountable
	UNICOMM SAK-305	HART®-USB/RS485 modem for remote programming via PC, rail mountable
	UNICOMM SAT-304	HART®-USB modem for remote programming via PC
	UNICOMM SAT-504	HART®-USB/Bluetooth® modem for remote programming
	EView2	Configuration software for remote programming via PC. FREE download!

NPK + NAW-104

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NIVELCO.COM

NIVOPRESS D

HYDROSTATIC LEVEL TRANSMITTER

5 YEARS WARRANTY

NIVELCO

LEVEL TRANSMITTERS

DESCRIPTION

NIVOPRESS D level transmitters operate in 2-wire systems that convert the relative pressure *(input signal)* into a direct current signal *(output signal)*. The silicone oil *(cooking oil on request)* transmission fluid transmits the pressure value from the stainless steel diaphragm to the piezoresistive sensor of the transmitter – smart electronics and HART® communication feature local and remote programming. The transmitters are available in standard and non-sparking *(Ex ia)* versions.
Due to their design, the NIVOPRESS D front diaphragm level transmitters are particularly suitable for level measuring tasks by measuring pressure at the bottom of the tank. The same design makes it an excellent instrument for food applications *(milk, pastes)*. The smooth membrane surface and the maximum permissible medium temperature of +125 °C (+257 °F) ensure hygienic cleaning in technologies that require regular cleaning and eliminate the risk of clogging. The device can be used for all level measurement tasks with atmospheric pressure above the liquid column.

FEATURES

- 0.25% accuracy
- Gauge or absolute pressure transmitter
- Piezoresistive sensor with stainless steel flush diaphragm
- Wide pressure range selection
- Temperature compensation
- HART® communication
- Plug-in display
- Wide variety of process connections
- IP65
- Ex version

APPLICATIONS

- Liquids and weightes in tanks and vessels
- Chemicals with dense vapor or gas layers above the surface
- Foaming liquids
- Highly viscous or corrosive substances

CERTIFICATE

- ATEX (Ex ia G)

DT–500

SAP–203 display

OPERATION

Hydrostatic level measurement principle

Provided the density is constant, the level depends on the pressure head.

$$P_{hydr} = 10^{-5} \rho \cdot g \cdot h$$

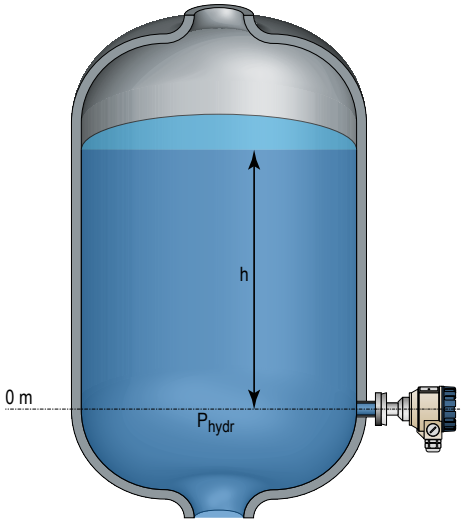
$$\downarrow$$

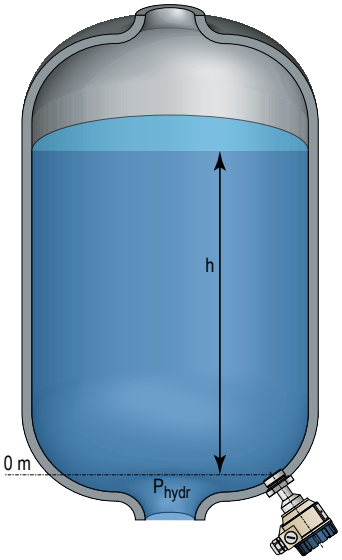
$$h = 10^{5} \frac{P_{hydr}}{\rho \cdot g}$$

$$\downarrow$$

Maximum possible value of „h": $h_{max} = 10^{5} \frac{P_{hydr.max}}{\rho \cdot g}$

P_{hydr} [bar] = hydrostatic pressure
ρ [kg/m³] = density of the medium
g [m/s²] = gravitational acceleration
h [m] = distance between the middle of the diaphragm and the level of the material
$P_{hydr.max}$ = highest pressure limit





TECHNICAL DATA

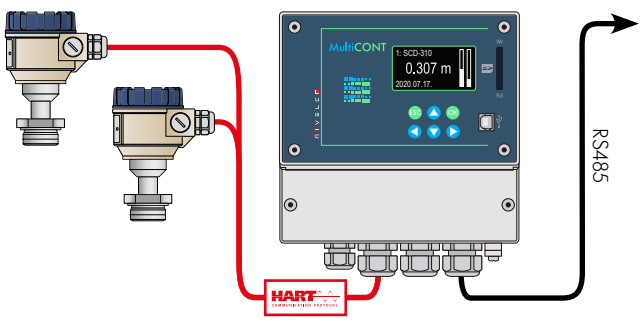
		D–500 / D–700	D–600
Measured Process Value		Level, pressure	
Sensor		Piezoresistive silicium sensor, with stainless steel flush diaphragm	
System		2-wire	
Power Supply		10…36 V DC	
Measuring Range		0…400 bar (0…5800 psi) (as per order code)	
Overpressure		0.5…600 bar (72.5…8700 psi) (as per order code)	
Downscale Rate		~1:2	
Zero Point Offset		50% of the measuring range	
Accuracy (Linearity Error)		p > 0.4 bar (5.8 psi): ±0.25%; p ≤ 0.4 bar: ±0.5%	
Output	Analog	4…20 mA	
	Display	SAP–203 – 6-digit plug-in LCD display	
	Digital Communication	HART®	
Ambient Temperature		–40…+70 °C (–40…+158 °F), with display: –25…+70 °C (–13…+158 °F)	–30…+70 °C (–22…+158 °F), with display: –25… +70 °C (–13… +158 °F),
		Ex variant: see Ex Information	
Range of Temperature Compensation		p < 100 bar (1450 psi): 0…+70 °C (+32…+158 °F) p ≤ 0.4 bar: 0…+50 °C (+32…+122 °F)	
Medium Temperature		–25…+125 °C (–13…+257 °F)	
Material of Wetted Parts	Protection Diaphragm	1.4435 (316L) stainless steel	
	Process Connection		
	Seal	p < 100 bar: Viton®; p > 100 bar: NBR; EPDM is ordered separately	
Pressure Transmitting Medium		Silicone oil; food industry compatible oil is ordered separately	
Housing Material		Powder-coated aluminum or stainless steel	Plastic (PBT)
Process Connection		As per order code	
Electrical Connection		2× M20×1.5 plastic cable glands, for 6…12 mm (0.25…0.5") cable diameter + Two internally threaded ½" NPT connection for protective pipes for 0.5…1.5 mm² (AWG20…15) wire cross section	
Electrical Protection		Class III	
Ingress Protection		IP65	
Weight		~2 kg (~4.4 lb)	~1.6 kg (~3.5 lb)

Ex INFORMATION

D□□–5□□–□Ex / D□□–6□□–□Ex	
Protection type	Intrinsic safety
Ex marking	II 1 G Ex ia IIC T6 … T4 Ga
Intrinsic safety data	U_i ≤ 30 V; I_i ≤ 100 mA; P_i ≤ 0.75 W; C_i ≤ 14 nF; L_i ≤ 180 µH
Process temperature range	Without display: –40…+70 °C (–40…+158 °F); With display: –25…+70 °C (–13…+158 °F)

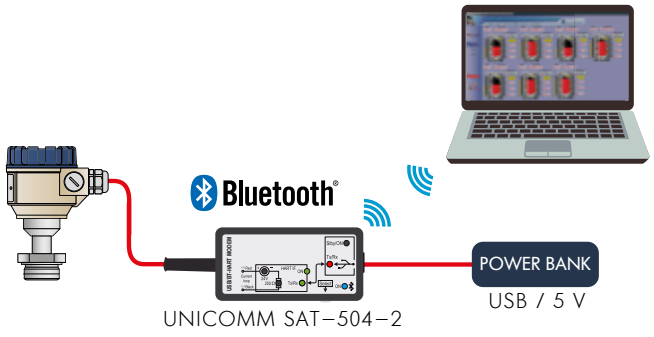
HART® MULTIDROP LOOP

MultiCONT Multichannel Process Controller can handle up to 15 normal HART® or up to 4 Ex-proof HART® capable **NIVELCO** transmitters. Digital (HART®) information is processed, displayed, and if necessary, transmitted via RS485 to a computer. Remote programming of the transmitters is also possible. Processes can be visualized on computers by using **NIVISION**.



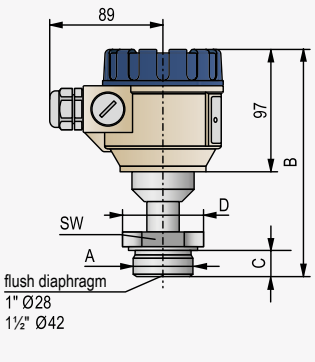
COMPUTER CONNECTION

HART® output devices and a **UNICOMM SAK–305** HART®–USB modems can be connected to a PC via a wire, while using a **UNICOMM SAT–504** HART®–USB/Bluetooth® modem, the transmitters can be connected via Bluetooth®. All data measured by the **NIVOPRESS D** can be displayed on the PC, and the devices can be reprogrammed if required. For a HART® modem, a maximum of 15 standard transmitters can be connected. In addition, the **EView2** configuration or **NIVISION** process visualization software can also be used.

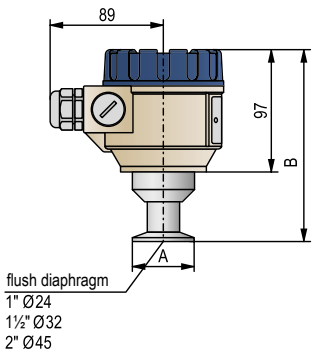


DIMENSIONS

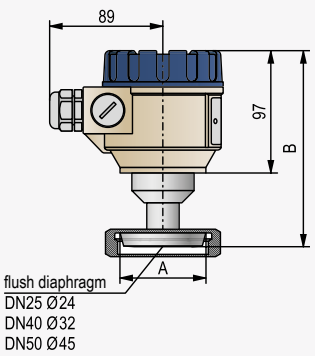
Threaded process connection



TriClamp



Pipe coupling (MILCH)



	DTC	DTE	DTF	DTS	DTT		DTL	DTM	DTN		DTO	DTP	DTR
A	½" BSP	1" BSP	1½" BSP	1" NPT	1½" NPT	TriClamp	1"	1½"	2"	MILCH	DN25	DN40	DN50
B	190	193	185	197	189	A	50.3	50.3	64	A	44	56	68.5
C	15	19	22	26	27	B	183	183	167	B	186	170	166
D	30	50	65	52	70								
SW	27	44	55	40	55								

ORDER CODES (NOT ALL COMBINATIONS AVAILABLE)

NIVOPRESS D■■–■■1–■[(1)]

Version	Code
Transmitter	T
Transmitter + display	B

Housing	Code
Aluminum	5
Plastic[(2)]	6
Stainless steel[(10)]	7

Process connection		Code
½"	BSP	C[(2)(3)]
1"	BSP	E[(4)]
1½"	BSP	F
1"	NPT	S
1½"	NPT	T
1"	TriClamp	L[(6)]
1½"	TriClamp	M[(7)]
2"	TriClamp	N[(7)]
DN25	Pipe Coupling (DIN 11851)	O[(8)]
DN40	Pipe Coupling (DIN 11851)	P[(8)]
DN50	Pipe Coupling (DIN 11851)	R[(9)]

Range (gauge) / Overpressure	Code
0…0.16 bar / 0.5 bar	1[(5)]
0…0.25 bar / 1 bar	2[(5)]
0…0.4 bar / 1 bar	3[(5)]
0…0.6 bar / 3 bar	4[(5)]
0…1.0 bar / 3 bar	5[(5)]
0…1.6 bar / 6 bar	6[(5)]
0…2.5 bar / 6 bar	7
0…4.0 bar / 20 bar	8
0…6.0 bar / 20 bar	9
0…10 bar / 20 bar	A
0…16 bar / 60 bar	B
0…25 bar / 60 bar	C
0…40 bar / 100 bar	D
0…60 bar / 120 bar	E
0…100 bar / 250 bar	F
0…160 bar / 500 bar	G
0…250 bar / 500 bar	H
0…400 bar / 600 bar	J

Output / Ex	Code
4…20 mA	2
4…20 mA + HART	4
4…20 mA / Ex ia G	6
4…20 mA + HART® / Ex ia G	8

(1) The order code of an Ex version should end in "Ex"
(2) Not available in Ex version
(3) Only for p ≥ 2.5 bar
(4) Only for p ≥ 1 bar
(5) Only with min. 1" connection
(6) Only for 0.25…16 bar
(7) Only for p ≤ 16 bar
(8) Only for 0.25…40 bar
(9) Only for 0.25…25 bar
(10) Ex version under approval

Accessories

SAP–203		Plug-in LCD display unit
UNICOMM	SAT–304	HART®–USB modem
UNICOMM	SAT–504	HART®–USB/Bluetooth® modem
UNICOMM	SAK–305–2	HART®–USB/RS485 modem
UNICOMM	SAK–305–6	HART®–USB/RS485 modem / Ex ia G
UNICONT PGK–301		Ex isolator power supply module
NIPOWER PPK–431		24 V DC power supply
UNICONT PDF–501		Universal loop display

Adapters

EAA–604–0	½" BSP / ½" NPT (1.4571)
NAZ–104–0	1" BSP / ½" BSP (1.4571)
NAZ–107–0	½" BSP / 1" BSP (1.4571)

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