PRODUCT OVERVIEW

2018

QUALITY AND INNOVATION SINCE 1939

NIVELCO

LEVEL TRANSMITTERS

NON-CONTACT MICROWAVE		GUIDED MICROWAVE	CAPACITIVE	HYDROSTATIC
COMPACT	INTEGRATED			
▪ 2-wire compact transmitter ▪ 25 GHz (K-band) measuring signal ▪ Non-contact level metering ▪ Accuracy up to ±3 mm ▪ Measuring range up to 23 m ▪ Plug-in graphic display module ▪ 99-point linearisation ▪ Plastic, aluminium or stainless steel housing ▪ Stainless steel parabolic, horn or plastic enclosed antenna ▪ High temperature range ▪ Explosion-proof models	▪ 2-wire integrated transmitter ▪ 25 GHz (K-band) measuring signal ▪ Non-contact level metering ▪ Accuracy up to ±3 mm ▪ Measuring range up to 23 m ▪ 99-point linearisation ▪ Plastic housing ▪ Stainless steel horn or plastic enclosed antenna ▪ Explosion-proof models	▪ 2-wire compact transmitter ▪ Accuracy: ±5 or ±20 mm ▪ High pressure ▪ High temperature range ▪ Wide range of probes ▪ Extremely low dead band ▪ Rod or cable probes ▪ Plug-in graphic display module ▪ Explosion-proof models ▪ Plastic, aluminium or stainless steel housing	▪ 2-wire compact transmitter ▪ High sensitivity ▪ Rod or cable probes up to 20 m ▪ Plastic, aluminium or stainless steel housing ▪ Fully or partly insulated probes ▪ Plug-in display module ▪ 32-point linearisation ▪ Distance, level and volume measurement ▪ Explosion-proof models	▪ 2-wire compact transmitter ▪ Stainless steel diaphragm ▪ Accuracy: 0.25% ▪ High overload capability ▪ Level and pressure management ▪ Plug in display module ▪ High temperature range ▪ Explosion-proof models
▪ Level measurement of liquids, emulsions and other chemicals ▪ Water, wastewater industry ▪ Pharmaceutical industry, chemical industry ▪ Food industry ▪ Energy industry	▪ Level measurement of liquids, emulsions and other chemicals ▪ Water, wastewater industry ▪ Chemical industry ▪ Where IP68 is needed	▪ Level, distance or volume measurement ▪ Liquids, powders, granules with $\varepsilon_r > 1.4$ ▪ Media with turbulent surface, dense dust, vapour or pressurized gas layers above the product surface ▪ For all tank shapes, for narrow vessels ▪ Heavy industrial applications	▪ Liquids, powders, granules with $\varepsilon_r > 1.5$ relative dielectric constant ▪ Chemicals with dense gas layers above the surface ▪ Viscose or corrosive mediums ▪ High pressure, high temperature or vacuum	▪ Most liquids and masses in tanks and vessels ▪ Chemicals with dense vapour or gas layers above the surface ▪ Foaming liquids ▪ Viscous or corrosive materials
Power supply: 20 – 36 V DC **Ambient temperature:** -20 °C … +60 °C **Process temperature:** -30° C … +180 °C **Pressure:** -1 bar – 25 bar **Output:** 4 – 20 mA + HART® **Process connection:** 1½", 2" or flanges or sanitary **Protection:** IP67 **Approvals:** ATEX, IEC Ex, FCC, FM, CSA, INMETRO	**Power supply:** 20 – 36 V DC **Ambient temperature:** -20 °C … +60 °C **Process temperature:** -30 °C … +100 °C **Pressure:** -1 bar – 3 bar **Output:** 4 – 20 mA + HART® **Process connection:** 1½", 2" or flanges or sanitary **Protection:** IP68 **Approvals:** ATEX, IEC Ex, FCC, INMETRO	**Power supply:** 18 – 35 V DC **Ambient temperature:** -30 °C … +60 °C **Process temperature:** -30 °C … +200 °C **Pressure:** -1 bar – 40 bar **Measuring range:** 0 – 24 m **Output:** 4 – 20 mA + HART® **Protection:** IP67 **Approvals:** ATEX, IEC Ex, INMETRO	**Power supply:** 12 – 36 V DC **Ambient temperature:** -25 °C … +70 °C **Process temperature:** -30 °C … +200 °C **Pressure:** max. 40 bar **Output:** 4 – 20 mA, HART® **Process connection:** 1", 1½" **Protection:** IP67 **Approval:** ATEX	**Power supply:** 10 – 36 V DC **Ambient temperature:** -40 °C … +75 °C **Process temperature:** -25 °C … +125 °C **Pressure:** max. 400 bar **Output:** 4 – 20 mA, HART® **Process connection:** 1½", flanges, hygienic fittings **Protection:** IP65 **Approval:** ATEX
PiloTREK		**MicroTREK**	**NIVOCAP**	**NIVOPRESS D**

LEVEL TRANSMITTERS

HYDROSTATIC	MAGNETOSTRICTIVE	BYPASS LEVEL INDICATORS	ULTRASONIC	
			INTEGRATED	COMPACT
▪ 2- or 3-wire submersible transmitter ▪ Capacitive ceramic, piezoresistive stainless steel and piezoresistive ceramic sensor ▪ Plastic or stainless steel body ▪ Venting tube in cable ▪ Reverse polarity protection ▪ Optional lightning protection ▪ Linearity: ±0.25% ▪ Built-in Pt100 temperature sensor ▪ Explosion-proof models	▪ 2-wire compact and mini compact transmitter ▪ 0.1 mm or 1 mm resolution ▪ Wetted parts: stainless steel or plastic ▪ Plug-in graphic display module ▪ 99-point linearisation ▪ Distance, level and volume measurement ▪ Explosion-proof models	▪ No power required ▪ Brightly coloured indication ▪ Stainless steel bypass chamber ▪ Error indication ▪ Optional level switches ▪ Optional magnetostrictive level transmitter ▪ 10 mm accuracy ▪ Stainless steel or titan float ▪ High temperature version	▪ 2- or 4-wire integrated transmitter ▪ Non-contact level metering ▪ Low cost ▪ Narrow 5° beam angle ▪ Temperature compensated ▪ Excellent signal processing via QUEST+ software ▪ PP, PVDF housing ▪ Secondary lightning protection ▪ Datalogger feature ▪ Power relay output ▪ Explosion-proof models	▪ 2- or 4-wire compact transmitter ▪ Non-contact level metering ▪ Narrow 5° beam angle ▪ Temperature compensated ▪ Excellent signal processing via QUEST+ software ▪ PP, PVDF, PTFE, stainless steel or foam faced transducers ▪ Plug-in display module ▪ Secondary lightning protection ▪ Datalogger feature ▪ Power relay output ▪ Explosion-proof models
▪ Borehole transmitter for the water industry ▪ Small diameter pipes ▪ Sewage water ▪ Saline solutions, sea water ▪ For potable water	▪ Liquids with min. 0.4 kg/dm³ density ▪ Chemicals, solvents, hydrocarbons ▪ Flammable liquids ▪ Interface metering ▪ Custody transfer measurement (OIML R-85)	▪ Oil and gas industries ▪ Chemical industry ▪ Power generation ▪ Boilers ▪ Pressurized vessels ▪ Tanks	▪ Most liquids and solids ▪ Level, volume and open channel flow ▪ Reliable measurement in challenging applications such as vapour/fume stirrer and foam with liquids or dusting during filling with solids ▪ Where IP68 is needed	▪ Almost any liquids or free flowing solids ▪ Level, volume and open channel flow ▪ Reliable measurement in challenging applications such as vapour/fume stirrer, foam with liquids or dusting during filling with solids
Power supply: 12 – 30 V DC **Process temperature:** -10 °C … +60 °C **Measuring range:** 0 m – 200 m **Output:** 4 – 20 mA + HART®, 0 – 10 V **Protection:** IP68 **Approval:** ATEX	**Power supply:** 12.5 – 36 V DC **Ambient temperature:** -40 °C … +70 °C **Process temperature:** -40 °C … +90 °C **Pressure:** max. 25 bar **Measuring range:** 0 m – 15 m **Output:** 4 – 20 mA, HART® **Process connection:** 1", 2" or flanges **Protection:** IP67 **Approvals:** ATEX, FM, IEC Ex, CSA, OIML R-85	**Flange distance (CL to CL):** 500 – 5500 mm **Process connection:** DIN, ANSI flanges **Pressure:** max. 100 bar **Process temperature:** -40 °C … +250 °C **Medium density:** 0.65 – 1.25 kg/dm³ **Approvals:** PED approval, ATEX: MAK-100 level switches	**Power supply:** 2-wire: 12 – 36 V DC 4-wire: 11.4 – 40 V DC, 11.4 – 28 V AC **Ambient temperature:** -30 °C … +80 °C **Process temperature:** -30 °C … +90 °C **Pressure (absolute):** 0.05 MPa – 0.3 MPa (0.5 bar – 3 bar) **Measuring range:** 0.2 – 25 m for liquids 0.6 – 60 m for solids **Output:** 4 – 20 mA, HART® **Protection:** IP68, IP65 **Approval:** ATEX	**Power supply:** 2-wire: 12 – 36 V DC 4-wire: 85 – 255 V AC, 11.4 – 40 V DC, 11.4 – 28 V AC, 20 – 28 V AC/DC **Ambient temperature:** -30 °C … +70 °C **Process temperature:** -30 °C … +100 °C **Pressure (absolute):** 0.05 MPa – 0.3 MPa (0.5 bar – 3 bar) **Measuring range:** 0.2 – 25 m for liquids 0.6 – 60 m for solids **Output:** 4 – 20 mA, HART® **Protection:** IP67 **Approvals:** ATEX, INMETRO
NIVOPRESS N	**NIVOTRACK**	**NIVOFLIP**	**EasyTREK**	**EchoTREK**

LEVEL SWITCHES

FLOAT	CONDUCTIVITY	MAGNETIC		VIBRATION ROD
		COUPLING	TRACKING	
▪ Operation without power supply ▪ Low cost polypropylene level switch ▪ Hermetically moulded, double chamber ▪ Mercury free operated micro switch ▪ Adjustable switch differential ▪ Low specific weight of the floating body	▪ Low cost level switch ▪ Limit switch or differential switch versions ▪ Adjustable sensitivity ▪ Adjustable time delay ▪ High or low fail-safe mode ▪ All wetted parts stainless steel ▪ Compact unit with two independent relays ▪ Separate probe and relay unit ▪ Rod probes up to 3 m	▪ Operation without power supply ▪ Micro-switch separated from the process ▪ All wetted parts stainless steel ▪ Side or top mounting ▪ Fixed or adjustable switch differential ▪ Submersible versions ▪ Various process connections ▪ Operational check via optional tester ▪ Flame-proof models ▪ SIL1 approval	▪ Operation without power supply ▪ Reed switches separated from process ▪ Wetted parts stainless steel or plastic ▪ Up to 5 switch points ▪ Vertical adjustability of all switch points ▪ Various process connections ▪ Flame-proof models	▪ No moving parts ▪ Self-cleaning for most mediums ▪ Stainless steel vibrating section ▪ Solid rod or flexible cable extension up to 20 m ▪ Plastic or aluminium housing ▪ Selectable density ▪ High or low fail-safe mode ▪ Selectable switching delay ▪ Dust-Ex models
▪ Level switch from potable water to sewage ▪ Suitable also for tanks and basins ▪ Fail-safe indication and pump control	▪ Conductive liquids with min. 1 x 10^{-5} S/cm conductivity ▪ Fail-safe indication and pump control ▪ Chemical and water industry	▪ Liquids with min. 0.7 kg/dm^3 density ▪ Fail-safe and control level switches in closed tanks ▪ Power stations, chemical, petrochemical and pharmaceutical industry ▪ Ballast tanks on ships	▪ Liquids with minimum 0.4 or 0.8 kg/dm^3 density ▪ Multi-point level switch in closed tanks ▪ Chemicals with dense vapour or gas layer above the surface ▪ Foaming liquids	▪ Granular material and powder with min. 0.05 kg/dm^3 bulk density ▪ Grain, flour, plastic granules, cement, fly ash, etc.
Switch rating: 250 V AC, 10(3) A **Process temperature:** 0 °C … +50 °C **Pressure:** max. 1 bar **Protection:** IP68	**Switch rating:** 250 V AC, 16 A or 8 A **Power supply:** 24 V AC/DC, 110, 230 V AC **Ambient temperature:** -20 °C … +50 °C **Process temperature:** max. +200 °C **Pressure:** max. 16 bar **Process connection:** ⅜", 1½" **Protection:** IP65 / IP67, IP20	**Switch rating:** 250 V AC, 10 A NO/NC **Ambient temperature:** -20 °C … +80 °C **Process temperature:** -40 °C … +250 °C **Pressure:** max. 25 bar **Process connection:** flanges or 2" thread **Protection:** IP65, IP68 **Approvals:** ATEX, IEC Ex, INMETRO, EAC, DNV GL (Marine), BV (Marine), SIL1	**Switch rating:** 250 V AC, 3 A **Ambient temperature:** -40 °C … +95 °C **Process temperature:** -40 °C … +150 °C **Pressure:** max. 25 bar **Process connection:** 1" or 2" or flanges **Protection:** IP67, IP68 **Approvals:** ATEX, BV (Marine)	**Power supply:** 20 – 255 V AC/DC **Ambient temperature:** -30 °C … +60 °C **Process temperature:** -30 °C … +160 °C **Pressure:** max. 25 bar **Process connection:** 1½" **Output:** relay (SPDT) or electronic switch (SPST) **Protection:** IP67 **Approvals:** ATEX, IEC Ex
NIVOFLOAT	**NIVOCONT K**	**NIVOMAG**	**NIVOPOINT**	**NIVOCONT R**

LEVEL SWITCHES

SENSORS

VIBRATION FORK		ROTARY PADDLE	RF – CAPACITANCE	ULTRASONIC PROXIMITY SENSORS
FOR LIQUIDS	FOR SOLIDS			
▪ No moving parts ▪ Self-cleaning for most mediums ▪ Stainless steel and plastic coated probes ▪ Solid rod extension up to 3 m ▪ Various output configurations ▪ High or low fail-safe mode ▪ Plastic, aluminium or stainless steel housing ▪ Explosion-proof models	▪ No moving parts ▪ Self-cleaning for most mediums ▪ Stainless steel probes ▪ Solid rod extension up to 3 m ▪ Various output configurations ▪ Selectable density ▪ High or low fail-safe mode ▪ Plastic, aluminium or stainless steel housing ▪ Dust-Ex models	▪ Plastic or aluminium housing ▪ Long service time ▪ Motor shut-off feature ▪ Flexible coupling ▪ Rod or cable extended versions up to 3 m ▪ Sealed bearings ▪ High temperature version ▪ True fail-safe version ▪ Dust-Ex models	▪ Intelligent electronic level switch ▪ Build-up immunity ▪ Easy calibration ▪ Selectable sensitivity ▪ Fail-safe operation mode ▪ Rod or cable extended versions ▪ High temperature version ▪ Dust-Ex models	▪ Non-contact distance metering ▪ Analogue or switch output ▪ Narrow 5° beam angle ▪ Fully temperature compensated ▪ Metal or PP body ▪ Magnet or cable programming ▪ Short circuit and reverse polarity protection ▪ Status indication LED ▪ Maintenance-free
▪ Most liquids with min. 0.7 kg/dm^3 density and max. 10^4 mm^2/s viscosity ▪ Corrosive, thick, turbulent, flowing liquids	▪ Granular material particulate and powder with min. 0.01 kg/dm^3 bulk density	▪ Granular material and powder with min. 0.1 kg/dm^3 density ▪ High or low fail-safe ▪ Feed, coal, sand, rocks, limestone, metals, rubber	▪ For solids with $\varepsilon_r \geq 1.5$ and liquids ▪ For high viscosity, sticky materials ▪ Pharmaceutical and food industry ▪ Power generation processes	▪ Position, distance detection used in packaging equipment ▪ Monitoring of: filling equipment, small transport vehicles, trolleys, fork-lifts, material or object detection on conveyor belts
Power supply: 20 – 255 V AC, 20 – 60 V DC **Ambient temperature:** -40 °C … +70 °C **Process temperature:** -40 °C … +130 °C **Pressure:** max. 40 bar **Process connection:** 1", 1½", 2" or flanges or hygienic fittings **Output:** 1 or 2 SPDT relays, 2-wire AC or DC, transistor (PNP, NPN) **Protection:** IP67, IP68 **Approvals:** ATEX, IEC Ex (Ex d), FM, CSA, DNV GL (Marine)	**Power supply:** 20 – 255 V AC, 20 – 60 V DC **Ambient temperature:** -40 °C … +70 °C **Process temperature:** -40 °C … +130 °C **Pressure:** max. 40 bar **Process connection:** 1", 1½", 2" or flanges **Output:** 1 or 2 SPDT relays, 2-wire AC or DC, transistor (PNP, NPN) **Protection:** IP67, IP68 **Approval:** ATEX	**Power supply:** 24 V AC/DC, 120 V AC, 230 V AC **Ambient temperature:** -30 °C … +60 °C **Process temperature:** -20 °C … +200 °C **Pressure:** max. 3 bar **Process connection:** BSPT 1", 1½", mounting plate **Output:** relay 250 V AC, 10 A **Protection:** IP67 **Approval:** ATEX	**Power supply:** 20 – 250 V AC/DC **Ambient temperature:** -30 °C … +65 °C **Medium temperature:** -30 °C … +235 °C **Pressure:** max. 25 bar **Process connection:** ¾", 1", 1½" **Output:** relay (SPDT) or electronic switch (SPST) **Protection:** IP67 **Approvals:** ATEX, IEC Ex	**Power supply:** 10.8 – 30 V **Ambient temperature:** -20 °C … +70 °C **Ranges:** 0.2 – 1 m / 0.4 – 6 m **Output:** 0 – 10 V, 4 – 20 mA, NPN or PNP switch **Protection:** IP67, IP68
NIVOSWITCH		**NIVOROTA**	**NIVOCAP CK**	**MICROSONAR**

ANALYTICAL TRANSMITTERS			TEMP. MEASUREMENT	
pH / ORP	DISSOLVED OXYGEN	CONDUCTIVITY	MULTIPOINT TEMPERATURE TRANSMITTERS	TEMPERATURE INDICATORS / TRANSMITTERS
▪ 2-wire compact and integrated transmitter ▪ Plug-in graphic display module ▪ Separated version up to 10 m ▪ Temperature compensated ▪ Application oriented probes ▪ Wide selection of accessories ▪ Power relay output, programmable ▪ Explosion-proof models	▪ 2-wire compact transmitter ▪ Plug-in graphic display module ▪ Separated version up to 10 m ▪ Temperature compensated ▪ Power relay output, programmable ▪ Wide selection of accessories ▪ Explosion-proof models	▪ 2-wire mini compact transmitter ▪ Wide range of measurement ▪ Plug-in display ▪ Wide selection of accessories	▪ 2-wire multipoint temperature transmitter ▪ Digitally addressed sensors ▪ Replaceable sensors ▪ System capability ▪ Max. 15 sensors ▪ Intrinsically safe and Dust-Ex models	▪ 2-wire compact temperature display, transmitter ▪ Integral Pt100 probe ▪ Fully programmable ▪ Plug-in display module ▪ Probe length up to 3 m ▪ Aluminium or plastic housing ▪ Heavy duty field mountable housing ▪ Explosion-proof models
▪ Water, wastewater ▪ Water processing ▪ Water purification ▪ Chemical industries ▪ Pharmaceutical industries ▪ Food and beverage industries	▪ Water, wastewater ▪ Aeration processes ▪ Apprising the quality of surface waters ▪ Pharmaceutic and chemical industries ▪ Food and beverage industries	▪ Drinking water production ▪ Water processing ▪ Water purification ▪ Swimming pools ▪ Pharmaceutic and chemical industries ▪ Food and beverage industries	▪ Temperature measurement of powdered, granular solids or liquids ▪ Agricultural storage silos ▪ Silos of grain mills ▪ Food industry ▪ Animal feed industry ▪ Temperature trend monitoring	▪ Tanks, vessels, pipelines ▪ Liquid and gaseous mediums ▪ Where local indication is required ▪ Transmission to long distances
Power supply: 12 – 36 V DC **Ambient temperature:** -30 °C … +70 °C **Medium temperature:** -15 °C … +100 °C **Pressure:** max. 16 bar **Measuring range:** pH: 0 – 14 pH ORP: +/-1000 mV **Output:** 4 – 20 mA, relay, HART® **Protection:** IP67, IP68 **Approval:** ATEX	**Power supply:** 12 – 36 V DC **Ambient temperature:** -30 °C … +70 °C **Medium temperature:** 0 °C … +50 °C **Pressure:** max. 1 bar **Measuring ranges:** 0 – 10 ppm 0 – 20 ppm **Output:** 4 – 20 mA, relay, HART® **Protection:** IP67, IP68 **Approval:** ATEX	**Power supply:** 12 – 36 V DC **Ambient temperature:** 0 °C … +70 °C **Medium temperature:** -10 °C … +70 °C **Pressure:** max. 16 bar **Measuring ranges:** 1 µS/cm – 20 µS/cm 10 µS/cm – 200 µS/cm 100 µS/cm – 2000 µS/cm **Output:** 4 – 20 mA, HART® **Protection:** probe: IP68, electronic: IP65	**Measuring ranges:** in liquids: -30 °C … +125 °C in solids: -30 °C … +85 °C **Power supply:** 12 – 36 V DC **Ambient temperature:** -30 °C … +65 °C **Probe length:** rigid probe: 1 – 4 m flexible probe: 2 – 30 m **Accuracy:** ±0.5 °C **Output:** 4 – 20 mA + HART® **Process connection:** 1", 1½" BSP / NPT, M20 x1.5 **Protection:** IP67 **Approval:** ATEX	**Measuring range:** -50 °C … +600 °C **Power supply:** 10 – 36 V DC **Ambient temperature:** -40 °C … +70 °C **Pressure:** max. 25 bar **Output:** 4 – 20 mA, HART® **Protection:** IP65 **Approval:** ATEX
AnaCONT LEP / LER	**AnaCONT LED**	**AnaCONT LCK**	**THERMOPOINT**	**THERMOCONT TT**

PRESSURE SENSORS | SYSTEM

PRESSURE SWITCHES	PRESSURE TRANSMITTERS	DIFFERENTIAL PRESSURE TRANSMITTERS	MULTICHANNEL PROCESS CONTROLLER	UNIVERSAL INTERFACE MODULES
▪ Relative or absolute measurement mode ▪ Rotatable and configurable 4-digit display module ▪ Configurable via PC or programming device ▪ Stainless steel housing versions ▪ Ex ia versions* ▪ Integrated cable version	▪ Relative or absolute measurement mode ▪ For high pressure (up to 2000 bar) ▪ For vacuum, overpressure and absolute pressure measurement ▪ Measurement range downscale ▪ Two chamber aluminium die cast or stainless steel housing ▪ Ex ia or Ex d versions* ▪ SIL2 version*	▪ Relative measurement mode ▪ Measurement range downscale ▪ Up to 2 contacts ▪ Aluminium die cast housing ▪ Static overpressure 400 bar ▪ High accuracy ▪ Mechanical robust versions ▪ HASTELLOY® sensor version ▪ Ex ia versions*	▪ Programmer, indicator and controller for single transmitters and for transmitter groups ▪ Highly informative backlit LED or OLED display ▪ Tank visualisation ▪ Simple 6-key programming ▪ Datalogger memory: built-in 4 MB Flash memory SD card slot: max. 2 GB ▪ Transmitter diagnostic capabilities ▪ Explosion-proof models	▪ Universal expander module for: MultiCONT process controller, automated systems operating on RS485, PLC process control systems ▪ RS485 communication ▪ 4 – 20 mA current outputs ▪ Programmable relay outputs
▪ Gases, steam, liquids, viscous, pasty or highly contaminated media ▪ Pneumatic, hydraulic and mechanical engineering applications ▪ Plant and machine engineering, HVAC, environmental engineering ▪ For rough and difficult installing conditions ▪ Hygienical versions	▪ Water, waste water, fuel and oil, aggressive media, gases ▪ Plant and machine engineering, hydraulics, HVAC ▪ Environmental engineering, medical technology, laboratory techniques ▪ Energy industry, food and beverage industry ▪ For potable water	▪ Measurement of pressure difference of gases, compressed air and liquids in closed, pressurized tanks ▪ Plant and machine engineering, HVAC ▪ Chemical industry, energy industry, food and beverage industry ▪ Compact design versions for integration in applications with limited space	▪ Remote programming, displaying of transmitters	▪ Expanding a process control system with 2 relays or 2 current outputs ▪ For mixed systems: with 1 relay and 1 current output version ▪ Provides galvanic isolation
Sensor: silicon, ceramic, stainless steel **Nominal pressure gauge:** -1 bar – 600 bar **Accuracy:** 0.25%; 0.5% or 1% **Ambient temperature:** -40 °C … +85 °C **Process temperature:** -40 °C … +125 °C **Output:** 1, 2 or 4 PNP contacts **Process connection:** ⅛", ¼", ½", ¾", 1", 1½", 2" or flanges or sanitary **Protection:** IP54, IP65, IP67	**Sensor:** ceramic, stainless steel **Nominal pressure gauge:** 0 bar – 2000 bar **Accuracy:** 0.1%; 0.2%; 0.25%; 0.5% **Ambient temperature:** -40 °C … +85 °C **Process temperature:** -40 °C … +300 °C **Output:** 4 – 20 mA, 0 – 10V, HART® **Process connection:** ¼", ½", ¾", 1", 1½" or flanges 2", 3" RF; M20 x1.5 internal thread **Protection:** IP65, IP67, IP68	**Sensor:** silicon, stainless steel **Nominal pressure gauge:** 0 bar – 70 bar **Accuracy:** 0.075%, 0.1%, 0.5%, 1% **Ambient temperature:** -40 °C … +85 °C **Process temperature:** -40 °C … +125 °C **Output:** 4 – 20 mA, 0 – 10V, HART® **Process connection:** ¼", ½" BSP; ¼", ½" NPT; M20 x1.5 Ø6.6 x 11 (for flex. tubes Ø6); Ø4.45 x 1 (for flex. tubes Ø4) **Protection:** IP54, IP65, IP67	**Power supply:** 11.4 – 40 V DC; 11.4 – 28 V AC; 85 – 255 V AC **Ambient temperature:** -20 °C … +50 °C **Input from transmitters:** Up to 15 HART® devices **Outputs, internal:** max. 2 pcs. 4 – 20 mA max. 2 pcs. RS485 max. 5 pcs. SPDT relays **Outputs, external:** max. 16 pcs. 4 – 20 mA max. 2 pcs. RS485 max. 64 pcs. SPDT relays **Communication with host:** RS485 **Storage medium:** SD Card Flash Memory » USB **Protection:** IP65 **Approvals:** ATEX, IEC Ex, INMETRO	**Power supply:** 24 V DC **Ambient temperature:** -10 °C … +50 °C **Input:** RS485 Interface **Output:** – 2 relay 250 V AC, 8A, AC1 – 2 current outputs (4 – 20 mA) – 1 relay + 1 current output **Process connection:** DIN rail mounted (module width: 36 mm) **Protection:** IP20
NIPRESS DK	**NIPRESS D**	**NIPRESS DD**	**MultiCONT**	**UNICONT PJK**

* If Ex version is required, please request a custom quotation based on the data in the price list.
Orders based on the quotation will be considered official.

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HUNGARIAN PARALYMPIC COMMITTEE

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Nivelco reserves the right to change technical data without notice!

SYSTEM COMPONENTS		SOFTWARES	
ULTRASONIC PUMP CONTROL SYSTEM	COMMUNICATION MODULES	PROCESS VISUALISATION	HART® CONFIGURATION SOFTWARE
▪ Low cost automatic pump control system ▪ Ultrasonic level measurement ▪ 0.4 – 3 m measurement range ▪ Programmable pump cycling ▪ Optional dry-run or overfill protection ▪ Maintenance-free ▪ Max. 1 kW switching rate ▪ Motor or cable protection ▪ Submersible sensor ▪ Incorporated circuit breaker	▪ Communication interface (modem) between HART®-capable transmitters and PC ▪ DIN rail mountable or test clip connector version ▪ No need for power supply when using USB output ▪ Galvanic isolation ▪ Explosion-proof models ▪ 24 V current loop power supply (SAT-504)	▪ Communication with intelligent transmitters or switches and controllers ▪ Tank configuration ▪ Transmitter configuration ▪ Real-time trend analysis ▪ Data logging ▪ Database handling ▪ Archiving ▪ "Web-Ready" symbols and animations ▪ Remote connection on the Internet	▪ Remote programming and querying measurement data for up to 15 HART®-capable transmitters in one multidrop loop ▪ Handling linearization table entries ▪ Echo Map displaying ▪ Sensor calibration ▪ Measurement data monitoring ▪ Handling multiple HART® modems
▪ Domestic sewage shafts, wetwells ▪ Controlling of one-phase pumps (max. 1 kW) ▪ Sumps, tanks, flood storages ▪ Drainage sumps, pools	▪ Transferring measurement data to PC ▪ Connecting field transmitter to the PC via USB, RS485 or Bluetooth®	▪ Custom-tailored software for industrial process visualization ▪ Online monitoring of measured values ▪ Tank-farm visualization ▪ Alarm systems ▪ Inventory management	▪ For easy setting-up and configuration ▪ Remote programming ▪ Displaying measurement data ▪ Error detection ▪ Limited trend monitoring
Power supply: 230 V AC **Ambient temperature:** (Control unit) -25 °C … +45 °C **Process temperature:** (Ultrasonic transmitter) -25 °C … +60 °C **Output:** 1 relay NC contact, 250 V AC, 8A, AC1 **Process connection:** Control unit: wall mountable Ultrasonic transmitter: 1" **Protection:** Control unit: IP65 Ultrasonic transmitter: IP68	**Power supply:** supplied from USB / 24 V DC / Powerbank **Input:** HART® **Output:** USB / RS485 / Bluetooth® **Protection:** IP20 **Approval:** ATEX	Requirements: **Operating system:** MS Windows 2000, XP, Vista, 7, 8, 10 **Input port:** RS232, RS485 / USB **Free disk space required:** 5 GB	**Operation system:** MS Windows 2000, XP, Vista, 7, 8, 10 **Free disk space required:** 100 MB **Memory:** 512 MB RAM **HART® Modem:** UNICOMM SAT-304, SAK-305
UNICONT PSW	**UNICOMM**	**NIVISION**	**EView2**

COMPONENTS

CURRENT CONTROLLED SWITCH MODULES	LOOP INDICATORS	UNIVERSAL PROCESS CONTROLLERS / INDICATORS	INTRINSICALLY SAFE ISOLATOR MODULES
▪ Suitable interface for devices having 4 – 20 mA or on-off outputs ▪ Can power 2-wire transmitters ▪ Galvanic isolation ▪ 4 – 20 mA input ▪ Power relay (SPDT) output ▪ Limit, differential or window switch capabilities ▪ Programmable damping ▪ Explosion-proof models	▪ Loop operated ▪ Operation without external power supply ▪ Field display for transmitters ▪ Scalable display ▪ 20 mm digit height ▪ 4 – 20 mA to HART® converter version ▪ Heavy duty field mountable housing ▪ Stainless steel housing ▪ Flameproof models	▪ Dual LED display, 4 digits ▪ Universal input: Pt100, Ni100, J, K, S type sensors or 4 – 20 mA current, 0 – 10 V voltage output ▪ ON-OFF, PD or PID control ▪ Auto tuning ▪ 32 point linearization ▪ Transmitter power supply ▪ Up to 3 power relays ▪ Displaying of process values ▪ Heating / cooling control ▪ Alarm	▪ Isolated power supply for intrinsically safe transmitters ▪ DIN rail mountable ▪ Compatible with all devices using standard HART® communication
▪ Power supply and switching amplifier for 2-wire transmitters ▪ Switching amplifier for 4-wire active transmitters ▪ Dedicated switching amplifier version for the RC-400 range of Ex rated vibrating forks ▪ Wire state monitoring ▪ ON-OFF control	▪ Universal field indicator for any transmitters ▪ Selectable physical parameter set ▪ Display of process values supplied by any transmitter ▪ If used as HART® converter, powers 2-wire transmitters	▪ Displaying of process values ▪ Heating / cooling control ▪ Alarm	▪ For high precision transmitters ▪ For transmitters operating in hazardous applications ▪ For supplying and isolating certified measurement instruments
Power supply: 110 V, 230 V AC, 24 V AC/DC **Ambient temperature:** -10 °C … +55 °C **Input:** 4 – 20 mA **Switch rating:** 250 V AC, 8A, AC1 **Protection:** IP20 **Process connection:** DIN rail mounted (module width: 36 mm) **Approval:** ATEX	**Power supply:** 24 V DC **Ambient temperature:** -40 °C … +70 °C **Input:** 4 – 20 mA **Output:** 4 – 20 mA, 4 – 20 mA + HART® **Display:** 6 digits LCD **Protection:** IP67 **Approvals:** ATEX, INMETRO	**Power supply:** 100 – 240 V AC, 20 – 48 V AC 22 – 65 V DC **Ambient temperature:** -10 °C … +55 °C **Input:** universal **Output:** relay, 4 – 20 mA, RS485, power supply for transmitters, SSR driver **Display:** dual 4 digits LED display **Protection:** IP20 / IP66	**Power supply:** 20 – 35 V DC **Output voltage:** 24 V DC **Ambient temperature:** -20 °C … +60 °C **Input / Output:** 4 – 20 mA + HART® **Accuracy:** 1 µA / 8 µA **Response time:** 5 ms / 100 ms **Process connection:** DIN rail mounted (module width: 22.5 mm) **Protection:** IP20 **Approvals:** ATEX, IEC Ex
UNICONT PKK	**UNICONT PD**	**UNICONT PM**	**UNICONT PGK**

LEVEL TRANSMITTERS

- PiloTREK
- MicroTREK
- NIVOCAP
- NIVOPRESS D
- NIVOPRESS N
- NIVOTRACK
- NIVOFLIP
- EasyTREK
- EchoTREK

LEVEL SWITCHES

- NIVOFLOAT
- NIVOCONT K
- NIVOMAG
- NIVOPOINT
- NIVOSWITCH
- NIVOCONT R
- NIVOROTA
- NIVOCAP CK

ANALYTICAL TRANSMITTERS

- AnaCONT LEP / LER
- AnaCONT LED
- AnaCONT LCK

TEMPERATURE MEASUREMENT

- THERMOPOINT
- THERMOCONT TT

SENSORS

- MICROSONAR

PRESSURE SENSORS

- NIPRESS DK
- NIPRESS D
- NIPRESS DD

SYSTEM COMPONENTS

- MultiCONT
- UNICONT PJK
- UNICONT PKK
- UNICONT PD
- UNICONT PM
- UNICONT PGK
- UNICONT PSW
- UNICOMM

SOFTWARES

- NIVISION
- EView2

OPERATING PRINCIPLE

FEATURES

APPLICATION

SPECIFICATION