

PRODUCT OVERVIEW

2021



OPERATING PRINCIPLE

NON-CONTACT MICROWAVE

COMPACT

INTEGRATED

- **FEATURES** Plug-in graphic display
 - module Plastic, aliminum or stainless

steel housing

- Stainless steel parabolic, horn or plastic enclosed antenna
- High-temperature range
- Plastic housing
- Horn, planar or parabolic
- antenna Stainless steel or plastic encapsulated sensor
- Where IP68 is needed

- 2-wire transmitters
- 25 GHz (K-band) measuring signal
 - Non-contact level metering
 - Accuracy up to ±0.12 inch
 - Measuring range up to 75 feet
 - 99-point linearisation
- Explosion-proof variants available

APPLICATION

- Level measurement of liquids, emulsions and other chemicals
- Agriculture
- Construction materials
- Chemical industry
- Pharmaceutical industry
- Food and beverage
- Power plants
- Oil industry
- Water / wastewater industry
- Level measurement of liquids, emulsions and other chemicals
- Food and beverage
- Chemical industry
- Oil industry
- Water / wastewater industry

SPECIFICATION

Power Supply:

20-36 VDC

Ambient Temperature:

–4°F…+140°F

Process Temperature:

-22°F...+356°F

Process Pressure:

-14.5-362.6 psig

Output:

4...20 mA + HART®

Process Connection:

1½", 2" or flanges or sanitary

Ingress Protection:

IP67

Certificates:

ATEX, IEC Ex, FCC, FM & FMc,

INMETRO







Power Supply:

20-36 VDC

Ambient Temperature:

-4°F...+140°F

Process Temperature:

-22°F...+212°F

Process Pressure:

-14.5-43.5 psig

Output:

4...20 mA + HART®

Process Connection:

1½", 2" or flanges or sanitary

Ingress Protection:

IP68

Certificates:

ATEX, IEC Ex, FCC, **INMETRO**



LEVEL TRANSMITTERS **MAGNETO-**GUIDED MICROWAVE CAPACITIVE **HYDROSTATIC STRICTIVE** 2-wire compact transmitter 2-wire compact transmitter 2-wire compact transmitter • 2- or 3-wire submersible 2-wire compact, mini Stainless steel diaphraam ■ ±0.4 inch accuracy High sensitivity transmitter compact or integrated Rod (7.8 inches to 9.8 ft) Accuracy: 0.25% transmitter • High pressure Capacitive ceramic, High-temperature range or cable (39 inches to 65 ft) High overload capability • 0.004 inch or 0.04 inch piezoresistive stainless steel Level and pressure Wide range of probes and piezoresistive ceramic resolution Extremely small deadband Plastic, aliminum or stainless Wetted parts: manaaement sensor Rod, cable, or coaxial probe steel housing Plug in display module Stailess steel or fully plastic stainless steel or plastic Partially or fully insulated High-temperature range versions Plug-in graphic body Explosion-proof variants display module Plug-in graphic display module Venting tube in cable probe Explosion-proof variants Plua-in display module 99-point linearisation available Reverse polarity protection available 32-point linearisation Viscous or corrosive Optional lightning protection Distance, level and volume Plastic, aliminum or stainless Explosion-proof variants materials Linearity error: ±0.25% measurement steel housing available Chemicals with dense vapor Integrated Pt100 temperature Explosion-proof variants Media with turbulent Chemicals with dense gas or gas layers above the sensor available surface, dense dust, vapor or Explosion-proof variants layers above the surface surface Interface measurement pressurized aas lavers above High pressure, highavailable Chemicals, solvents. the product surface temperature or vacuum Borehole transmitter for hydrocarbons • For all tank shapes, for Viscous or corrosive mediums the water industry Custody transfer measurement (OIML R 85) narrow vessels Heavy industrial applications Level, distance or volume Distance, level and volume Level measurement of most Level metering of small diameter Level measurement of normal and measurement of liquids, powders. measurement of liquids, powders. foamina liquids and masses pipes, sewage water, saline flammable liquids, with granules, with $\varepsilon_r > 1.5$ relative granules with $\varepsilon_r > 1.4$ in tanks and vessels solutions, sea water, potable min. 0.4 specific gravity Agriculture dielectric constant Chemical industry Chemical industry water Construction materials Chemical industry Food and beverage Chemical industry Power plants Chemical industry Food and beverage Power plants Water / wastewater industry Oil industry Power plants Oil industry Water industry Food and beverage Oil industry Water / wastewater industry Power plants Water / wastewater industry Oil industry Water / wastewater industry Power Supply: Power Supply: Power Supply: Power Supply: Power Supply: 18-35 VDC 12-36 VDC 10-36 VDC 12-30 VDC 12.5-36 VDC Ambient Temperature: Ambient Temperature: Ambient Temperature: Process Temperature: Ambient Temperature: -22°F...+140°F -13°F...+158°F -40°F...+158°F -22°F...+140°F -40°F...+158°F Process Temperature: Process Temperature: Process Temperature: Process Temperature: Measuring Range: -22°F...+392°F -22°F...+392°F -13°F...+257°F 0-656 feet -40°F...+194°F Process Pressure: Process Pressure: Process Pressure: Process Pressure: Output: 4...20 mA + HART®, -14.5-580 psig up to 363 psig up to 5800 psig up to 580 psig Measuring Range: Measuring Range: Output: 0-10 V Output: 4...20 mA, HART® 0-50 feet 0-80 feet 4...20 mA, HART® Ingress Protection: Process Connection: Output: Output: Process Connection: IP68 1", 11/2", flanges, 4...20 mA, HART® 4...20 mA + HART® 1", 11/2" Certificate: Ingress Protection: hygienic fittings Process Connection: Ingress Protection: **ATEX** 1", 2" or flanges **IP67** IP67 Ingress Protection: Ingress Protection: IP65 Certificates: Certificate: IP67 (IP68) Certificate: ATEX, IEC Ex, **ATEX** Certificates: **INMETRO ATEX** ATEX, FM & FMc, IEC Ex, EAC, OIML R 85 61ML

FM

LEVEL TRANSMITTERS					
BYPASS LEVEL	ULTRASONIC INTEGRATED		ULTRASONIC COMPACT		
INDICATORS	FOR LIQUIDS	FOR SOLIDS	FOR LIQUIDS	FOR SOLIDS	
Operation without power supplyClearly visible display	 2-wire transmitter Non-contact level metering Narrow 5° beam angle Excellent signal processing 	 4-wire transmitter Non-contact level metering Narrow 5° beam angle Excellent signal processing 	 2- or 4-wire transmitter Non-contact level metering Narrow 5° beam angle Excellent signal processing 	 4-wire transmitter Non-contact level metering Narrow 5° beam angle Excellent signal processing 	
Stainless steel bypass chamber Error indication Optional Strap-on level switches	via QUEST+ software • Temperature compensation • Secondary lightning protection • 32-point linearisation	 Temperature compensated Secondary lightning protection 32-point linearisation PP and aliminum housing 	 Temperature compensated Secondary lightning protection 32-point linearisation PP, PVDF, PTFE housing and transducers 	 Temperature compensated Secondary lightning protection 32-point linearisation PP and aliminum housing transducers with PVC foam 	
Optional magnetostrictive level transmitter ±0.4 inch accuracy Stainless steel or titanium float High-temperature version	 PP, PVDF, PTFE housing and transducers Explosion-proof variants available Level and volume measurement 	transducers with PVC foam Joystick aiming device Explosion-proof variants available Level and volume measurement	 Plug-in display module Plastic, aliminum or stainless steel housing Explosion-proof variants available Level and volume 	 Joystick aiming device Plug-in display module Powder-coated aliminum housing Explosion-proof variants available 	
Explosion-proof models	Open-channel flow metering Fail-safe indication For challenging applications such as vapor, fume, mixing blades, and light foam	Fail-safe indication For challenging applications such as long distance measurement and light dust during filling	measurement and display Open channel flow measurement Fail-safe indication For challenging applications such as vapor, fume, mixing blades, and light foam	Level and volume measurement and display Fail-safe indication For challenging applications such as long distance measurement and light dust during filling	
Level measurement of pressurized vessels, boilers and tanks Chemical industry Power plants Oil industry Water industry	Level measurement of liquids, wastewater, aggressive chemicals and slurries Agriculture Construction materials Chemical industry Food and beverage Oil industry Paper mill Water / wastewater industry	Level measurement of free flowing solids Chemical industry Food and beverage Mining industry	Level measurement of liquids and slurries Agriculture Construction materials Chemical industry Food and beverage Oil industry Paper mill Water / wastewater industry	Level measurement of free flowing solids Chemical industry Food and beverage Mining industry	
Flange distance (CL to CL): 1.65–18 feet Process Connection: DIN, ANSI flanges Process Pressure: up to 1450 psig Process Temperature: –76°F+482°F Specific gravity: 0.55–1.25 Certificates: PED, ATEX	Power Supply: 11–36 VDC Ambient Temperature: –22°F+176°F Process Temperature: –22°F+194°F Pressure (absolute): 7.5–43.5 psig Measuring Range: 0.65–82 feet Process Connection: 1" BSP, 1½" and 2" NPT Output: 420 mA, HART®, relay Ingress Protection: IP68 Certificates: ATEX, INMETRO	Power Supply: 11.4–40 VDC, 11.4–28 VAC Ambient Temperature: –22°F+140°F Process Temperature: –22°F+140°F Measuring Range: 2–200 feet Process Connection: 1" BSP and joystick aiming device Output: 420 mA, HART®, relay Ingress Protection: IP65 Certificate: ATEX	Power Supply: 2-wire: 12–36 VDC 4-wire: 85–255 VAC, 20–28 VAC/DC Ambient Temperature: –22°F+158°F Process Temperature: –22°F+212°F Pressure (absolute): 7.5–43.5 psig Measuring Range: 0.65–82 feet Process Connection: 1½", 2" BSP / NPT, flange Output: 420 mA, HART®, relay Ingress Protection: IP67 Certificate: ATEX, INMETRO	Power Supply: 85–255 VAC; 11.4–40 VDC; 11.4–28 VAC Ambient Temperature: –22°F+140°F Process Temperature: –22°F+167°F Measuring Range: 2–200 feet Process Connection: joystick aiming device Output: 420 mA, HART®, relay Ingress Protection: IP65 Certificate: ATEX	

EasyTREK

EchoTREK

NIVOFLIP

NIVOROTA

ROTARY PADDLE LEVEL SWITCH

The redesigned **NIVOROTA** rotary paddle level switch returns with an extended rotary paddle range and an even more reliable internal design.

NIVOROTA detects the level of lumpy materials, powders, grains, and granules. Mounted onto tanks, silos, and hoppers, it monitors and controls the level, filling, and dumping of the materials such as pebbles, ash, sand, coal, feed, beet slices, etc.

The paddle is driven by a small electric motor and rotates freely in the absence of materials. When the material reaches the paddle, the motor is switched off, and the output switch is triggered. When the material level drops, the paddle is free to spin again, the motor is reactivated, and the switch returns to its original state. Dust-Ex versions are available for use in hazardous environments.

FEATURES

- •Level switching of free flowing solids
- Cable or rod extended versions up to 10 feet
- Automatic motor shutdown
- High-temperature version
- IP67
- Dust-Ex certified version
- Rotary force independent of the supply voltage
- Low supply voltage is indicated by a blinking LED

APPLICATIONS

- Food industry: sunflower seeds, sunflower hulls, coffee and, cocoa powder, flour, sugar, etc.
- Chemical industry: plastic powders, granules, pellets
- Construction materials:
 cement, sand, calcium powder, gypsum
- Energy industry:
 active soot, coal powder, fly ash

	LEVEL SWITCHES				
OPERATING PRINCIPLE	FLOAT	CONDUCTIVE	MAGNETIC COUPLING	MAGNETIC TRACKING	
FEATURES	 Operation without power supply Low cost polypropylene level switch Air-tight design dual-chamber Mercury free micro switch Adjustable switch differential For low specific gravity liquids 	Affordable choice Limit switch or differential switch versions Adjustable sensitivity Adjustable 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 10 feet	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 variants available SIL1 approval	 Operation without power supply Reed switch output Wetted parts stainless steel or plastic Up to 5 switching points Vertical adjustability of all switch points Various process connections Flame-proof variants available 	
APPLICATION	Level switch from potable water to sewage Suitable also for tanks and basins Fail-safe indication and pump control Water / wastewater industry	Conductive liquids with minimum 1 x 10 ⁻⁵ S/cm conductivity Fail-safe indication and pump control Chemical industry Water / wastewater industry	Liquids with minimum 0.7 specific gravity Fail-safe and control level switches in closed tanks Ballast tanks on ships Chemical industry Food and beverage Power plants Oil industry Water industry	Liquids with minimum 0.4 kg specific gravity Multi-point level switch in closed tanks Foaming liquids, chemicals with dense vapor or gas layer above the surface Chemical, oil industry Food and beverage Power plants Water industry	
SPECIFICATION	Switch Rating: 250 VAC, 10(3)A Process Temperature: +32°F+122°F Process Pressure: up to 14.5 psig Ingress Protection: IP68	Switch Rating: 250 VAC, 16A or 8A Power Supply: 24–240 VAC/DC Ambient Temperature: –4°F+122°F Process Temperature: up to +392°F Process Pressure: max. 232 psig Process Connection: 3%", 1½" Ingress Protection: IP65 / IP67, IP20	Switch Rating: 250 VAC, 10A NO/NC Ambient Temperature: -4°F+176°F Process Temperature: -40°F+482°F Process Pressure: up to 363 psig Process Connection: flanges or 2" thread Ingress Protection: IP65, IP68 Certificates: ATEX, IEC Ex, INMETRO, EAC, DNV GL (Marine), BV (Marine), SIL1	Switch Rating: 250 VAC, 3A Ambient Temperature: -40°F+203°F Process Temperature: -40°F+302°F Process Pressure: max. 363 psig Process Connection: 1" or 2" or flanges Ingress Protection: IP67, IP68 Certificates: ATEX, BV (Marine)	
	NIVOFLOAT NL / NW	NIVOCONT K	NIVOMAG	NIVOPOINT	

LEVEL SWITCHES **VIBRATING FORK ROTARY PADDIF** RF - CAPACITANCE VIBRATING ROD **FOR LIQUIDS FOR SOLIDS** No moving parts No moving parts No moving parts Plastic or aliminum housing Intelligent electronic Self-cleaning in Self-cleaning for most Self-cleaning for most Long service time level switch Motor shut-off feature most mediums mediums mediums Build-up immunity Flexible coupling Easy calibration Stainless steel and plastic-Stainless steel probes Stainless steel vibratina Rod or flexible cable Selectable sensitivity coated probes Rod extension up to 10 feet • Rod extension up to 10 feet Various output configurations Rod (1-10 feet) or extension (1-10 feet) Fail-safe operation mode Rod (2.3-10 feet) or Various output configurations Selectable density flexible cable extension Sealed bearings • High or low fail-safe mode High or low fail-safe mode (3.3-65 feet) High-temperature version flexible cable extension Plastic, aliminum or Plastic, aliminum or Plastic or aliminum housing Dust-Ex variants available (3.3-33 feet) High or low fail-safe High-temperature version stainless steel housing stainless steel housing Selectable density Explosion-proof variants Dust-Ex variants available High or low fail-safe mode Feed, coal, sand, rocks. Dust-Ex variants available available Selectable switching delay limestone, metals, rubber For high viscosity. • For corrosive, thick, Dust-Ex variants available Rotary force independent of sticky materials the supply voltage turbulent, flowing liquids For grain, flour, plastic For special applications Medium pressure: granules, cement, fly ash, etc. Low supply voltage is such as blockage detection up to 580 psia, RU□ type: indicated by a blinking LED in hopper and hot ash up to 1450 psig Most liquids with minimum Granular material particulate Granular material and Granular material • For solids with $\mathcal{E}_r \ge 1.5$ and liquids 0.7 specific gravity and maximum and powder with minimum powder with min. 0.05 specific and powder with minimum Agriculture 0.1 ft²/s viscosity 0.01 specific gravity 0.1 specific gravity Construction materials Chemical industry Chemical industry Agriculture Agriculture Chemical industry • Food and beverage Food and beverage Construction materials Construction materials Pharmaceutical industry Power plants Power plants Chemical industry Chemical industry Food and beverage Oil industry Paper mill Food and beverage Food and beverage Mining industry Water industry Plastic industry Mining industry Mining industry Power plants Power plants Paper mill Paper mill Paper mill Recycling Plastic industry Recycling Plastic industry Plugged chute detection Plastic industry and hot fly ash Power Supply: Power Supply: Power Supply: Power Supply: Power Supply: 20-255 VAC, 20-255 VAC/DC 24 VAC/DC, 20-250 VAC/DC 20-255 VAC, 20-60 VDC 20-60 VDC Ambient Temperature: 120 VAC, 230 VAC Ambient Temperature: Ambient Temperature: -22°F...+140°F Ambient Temperature: -22°F...+149°F Ambient Temperature: -40°F...+158°F -40°F...+158°F Process Temperature: -22°F...+140°F Medium temperature: -22°F...+320°F Process Temperature: Process Temperature: Process Temperature: -40°F...+455°F -40°F...+266°F -40°F...+266°F Process Pressure: -4°F...+392°F Process Pressure: Process Pressure: Process Pressure: up to 363 psig Process Pressure: up to 363 psig Process Connection: up to 580 psig (1450 psig) Process Connection: up to 580 psig up to 44 psig Process Connection: 1", 1½", 2" or flanges or 11/2" Process Connection: Process Connection: 34", 1", 11/2" 1", 11/2", 2" or flanges Output: BSPT 1", 11/2", mounting plate Output: relay (SPDT) or hygienic fittings Output: Output: relay (SPDT) or electronic switch (SPST) relay (SPDT) 250 VAC, Output: 1 or 2 relays (SPDT), electronic switch (SPST) 1 or 2 relays (SPDT), 2-wire AC Ingress Protection: 2-wire AC or DC. 5A, AC1 Ingress Protection: or DC, transistor (PNP, NPN) transistor (PNP, NPN) IP67 Ingress Protection: **IP67** Certificates: Ingress Protection: Ingress Protection: IP67 Certificates: IP65, IP67, IP68 IP65, IP67, IP68 ATEX, IEC Ex Certificate: ATEX, IEC Ex Certificates: Certificate: **ATEX** ATEX, IEC Ex, FM & FMc, **ATEX** DNV GL (Marine) FM **NIVOCONT R NIVOSWITCH NIVOCAP CK NIVOROTA**

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	ANA	LYTICAL TRANSM	ITTERS		
OPERATING PRINCIPLE	pH / ORP	DISSOLVED OXYGEN	CONDUCTIVITY	TEMPERATURE SENSOR	
FEATURES	2-wire compact and integrated transmitter Plug-in graphic display module Separated version up to 33 feet Temperature compensated Application oriented probes Wide selection of accessories Power relay output, programmable Explosion-proof variants available	 2-wire compact transmitter Plug-in graphic display module Separated version up to 33 feet Temperature compensated Power relay output, programmable Wide selection of accessories Explosion-proof variants available 	2-wire mini compact transmitter Wide range of measurement Plug-in display Wide selection of accessories	Single or dual Pt100 sensor versions 2- or 4-wire types Double sensor protection tube Fast response sensor version Stainless steel protection tube Max. 10 feet probe length Vibration-resistant version Explosion-proof variants available Can be mounted to special technological places, tanks, tubes, furnaces or boilers Temp. metering in bearings Special versions for unique applications	
APPLICATION	Continuous pH or redox potential (ORP) measurement of highly alkaline mediums, suspensions, contaminated fluids, emulsions. Chemical industry Pharmaceutical industry Food and beverage Power plants Water / wastewater industry	Continuous dissolved oxygen measurement of surface waters, aeration processes, swimming pool equipments Chemical industry Pharmaceutical industry Food and beverage Water / wastewater industry	Continuous conductivity measurement of swimming pool technology and drinking water equipment Water purification Chemical industry Pharmaceutical industry Food and beverage Water / wastewater industry	Temperature measurement of liquids, gases, vapors Construction materials Chemical industry Food and beverage Oil industry Metallurgy Recycling	
PECIFICATION	Power Supply: 12–36 VDC Ambient Temperature: –22°F+158°F Medium Temperature: +5°F+212°F Process Pressure: max. 232 psig Measuring Range: pH: 0–14 pH ORP: ±1000 mV Output: 420 mA, relay, HART® Ingress Protection: IP67, IP68 Certificate: ATEX	Power Supply: 12–36 VDC Ambient Temperature: -22°F+158°F Medium Temperature: +32°F+122°F Process Pressure: max. 14.5 psig Measuring Ranges: 0–10 ppm 0–20 ppm Output: 420 mA, relay, HART® Ingress Protection: IP67, IP68 Certificate: ATEX	Power Supply: 12–36 VDC Ambient Temperature: +32°F+158°F Medium temperature: +14°F+158°F Process Pressure: max. 232 psig Measuring Ranges: 1 μS/cm – 20 μS/cm 10 μS/cm – 200 μS/cm 0 μS/cm – 2000 μS/cm Output: 420 mA, HART® Ingress Protection: probe: IP68, electronic: IP65	Measuring Ranges: -58°F+1112°F Ambient Temperature: -4°F+176°F Sensor Type: "A" or "B" class Pt100 Pressure: max. 362.6 psig Process Connection: M20x1.5; ½"; flange Ingress Protection: IP67 Certificate: ATEX	

TEMPERATURE MEASUREMENT INDUSTRIAL SENSORS MULTI-POINT TEMPERATURE TRANSMITTERS STRENGTHENED PROBE **TEMPERATURE INDICATORS ULTRASONIC PROXIMITY** TEMPERATURE SENSOR /TRANSMITTERS **SENSORS FOR LIQUIDS FOR SOLIDS** Robust design for 2-wire compact temperature 2-wire multi-point 2-wire multi-point Non-contact distance heavy chemical display, transmitter temperature transmitter temperature transmitter meterina Integral Pt100 probe industry Digitally addressed sensors Digitally addressed sensors Analogue or switch output Narrow 5° beam anale • Fully programmable Stainless steel, drilled. Maximum 15 sensors Maximum 15 sensors Plug-in display module Fully temperature tapered thermowell case Average, max, min Average, max, min Probe length up to 10 feet Max. 2.62 feet insertion temperature measurement temperature measurement compensated Aliminum or plastic housing Metal or PP body Plug-in graphic display Plug-in graphic display lenath Heavy duty field mountable Rigid or flexible probes Flexible plastic-coated Magnet or cable • Sensor can be replaced System capability probe version programming without removing the housing instrument from the process Explosion-proof variants Replaceable sensors Rigid or flexible probes Short circuit and reverse Vibration-resistant version available Intrinsically safe variants System capability polarity protection • 2- or 4-wire types Transmission to long available Replaceable sensors Status indication LED Intrinsically safe and Dust-Ex Welded flange distances Maintenance-free variants available • Gas thermometer version Versions for tanks, vessels, Explosion-proof variants pipelines available • Temperature measurement of Temperature measurement and Continuous multi-point Continuous multi-point Position, distance detection used liquids, gases, vapors local indication of normal and temperature measurement, temperature measurement, in packaging equipment Special versions for unique hazardous liquid and gaseous indication, transmission and indication, transmission and Monitoring of: filling equipment, small transport vehicles, trolleys, applications mediums. trend monitoring of normal and trend monitoring of powdered, hazardous liquids granular solids in storage silos, fork-lifts, material or object • For applications exposed to Food and beverage mechanical damage Water / wastewater industry Chemical industry grain mills, animal feed. detection on conveyor belts • Agriculture Chemical industry Oil industry Food and beverage Oil industry Oil industry Chemical industry Food and beverage Measuring Ranges: Measuring Range: Power Supply: Power Supply: Power Supply: -58°F...+1112°F 12-36 VDC 12-36 VDC 10.8-30 V -58°F...+1112°F Ambient Temperature: Ambient Temperature: Power Supply: Ambient Temperature: Ambient Temperature: -22°F...+176°F 10-36 VDC -22°F...+149°F -22°F...+149°F -4°F...+158°F Ambient Temperature: Measuring Range: Measuring Range: Sensor Type: Ranges: 0.65-3.28 feet "A" or "B" class -40°F...+158°F -22°F...+257°F -22°F...+185°F Pt100, or J, K thermocouple Process Pressure: Number of Sensors: / 1.3-19.7 feet Number of Sensors: max. 362 psig max. 15 Pressure: max. 15 Output: Probe Tensile Force: 0-10 V, 4...20 mA, max. 1160 psig Output: Probe Length: Process Connection: 4...20 mA, HART® 35 kN NPN or PNP switch rigid probe: 3.3-13 feet 1" or flange Process Connection: Ingress Protection: Probe Length: flexible probe: 3.3-164 feet Ingress Protection: M20x1.5; 1/2"; flange 3.3-164 feet IP67, IP68 Output: IP65, IP67 Ingress Protection: Output: 4...20 mA + HART® 4...20 mA + HART® Certificate: IP65 Process Connection: **ATEX** Certificate: Process Connection: 1"; 11/2" BSP / NPT; M20x1.5 11/2" BSP / NPT **ATEX** Ingress Protection: Ingress Protection: IP67 **IP67** Certificate: Certificate: **ATEX ATEX**

	P	PRESSURE SENSORS				
OPERATING PRINCIPLE	PRESSURE SWITCHES	PRESSURE TRANSMITTERS	DIFFERENTIAL PRESSURE TRANSMITTERS	MULTICHANNEL PROCESS CONTROLLEI		
FEATURES	Relative or absolute measuring 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 measuring mode For high pressure (up to 31 910 psig) For vacuum, overpressure and absolute pressure measurement Measurement range turndown Two chamber aliminum die cast or stainless steel housing Ex ia or Ex d versions* SIL2 version* 	Relative measurement mode Measuring range turndown Up to 2 contacts Aliminum die cast housing Static overpressure 5800 psig High accuracy Mechanical robust versions Hastelloy® sensor version Ex ia versions*	 Programmer, indicator and controller for single transmitters and for transmitter groups Large, easy to read backlit LCD or OLED display Tank visualisation Simple 6-key programming Datalogger memory: built-in 4 MB Flash memory SD card slot: max. 64 GB Transmitter diagnostic capabilities Ex flameproof input models 		
PPLICATION	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 Agriculture Construction materials Chemical industry Food and beverage Power plants Oil industry Plastic industry Water, waste water Industry		
ECIFICATION	Sensor: silicon, ceramic, stainless steel Nominal Pressure Gauge: -1-8700 psig Accuracy: 0.25%; 0.5% or 1% Ambient Temperature: -40°F+185°F Process Temperature: -40°F+257°F Output: 1, 2 or 4 PNP contacts Process Connection: 1, 2, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	Sensor: ceramic, stainless steel Nominal Pressure Gauge: 0–31 910 psig Accuracy: 0.1%; 0.2%; 0.25%; 0.5% Ambient Temperature: –40°F +185°F Process Temperature: –40°F+572°F Output: 420 mA, 0 – 10 V, HART® Process Connection: 1/4", 1/2", 3/4", 1", 11/2" or flanges 2", 3" RF; M20x1.5 internal thread Ingress Protection: IP65, IP67, IP68	Sensor: silicon, stainless steel Nominal Pressure Gauge: 0–1015 psig Accuracy: 0.075%, 0.1%, 0.5%, 1% Ambient Temperature: –40°F +185°F Process Temperature: –40°F+257°F Output: 420 mA, 0–10 V, HART® Process Connection: ¼", ½" BSP; ¼", ½" NPT; M20x1.5 Ø6.6x11 (for flex. tubes Ø6); Ø4.45x10 (for flex. tubes Ø4) Ingress Protection: IP54, IP65, IP67	Power Supply: 11.4 – 40 VDC; 11.4 – 28 VAC; 85 – 255 VAC Ambient Temperature: -4°F+122°F Input from Transmitters: Up to 15 HART® devices Outputs, Internal: max. 2× 420 mA max. 5× relays (SPDT) Outputs, External: max. 16× 420 mA via RS485 max. 64× relays (SPDT) Communication with Host: RS485 Storage Medium: SD card (max. 64 GB) Flash Memory » USB Ingress Protection: IP65 Certificates: ATEX, IEC Ex, INMETRO		

NIPRESS D

NIPRESS DK

NIPRESS DD MultiCONT

SIGNAL PROC	ESSING UNITS	SY	STEM COMPONEN	NTS
UNIVERSAL CONTROLLERS			CURRENT CONTROLLED	
/ INDICATORS	ULTRASONIC PUMP CONTROL SYSTEM	UNIVERSAL INTERFACE MODULES	SWITCH MODULES	LOOP INDICATORS
Dual LED display, 4 digits Universal input: Pt100, Ni100, J, K, S type sensors or 420 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 Plastic industry	Low cost automatic pump control system Ultrasonic level measurement 1.3 – 10 feet measurement range Programmable pump cycling Optional dry-run or overfill protection Maintenance-free Max. 1 kW switching rate Motor or cable protection 1P68 sensor Incorporated circuit breaker	Universal expander module for: MultiCONT process controller, automated systems operating on RS485, PLC process control systems RS485 communication A20 mA current outputs Programmable relay outputs	Suitable interface for devices having 420 mA or on-off outputs Can power 2-wire transmitters Galvanic isolation 420 mA input Power relay (SPDT) output Limit, differential or window switch capabilities Programmable damping Explosion-proof variants available	 Loop operated Operation without external power supply in 2-wire type Field display for transmitters Scalable display 0.8 inch digit height 420 mA to HART® converter version Heavy duty field mountable housing Stainless steel housing Flameproof variants available
Displaying of process values Heating / cooling control Alarm Agriculture Construction materials Chemical industry Food and beverage Oil industry Water / wastewater industry	Water / wastewater industry Domestic sewage shafts, wetwells Controlling of one-phase pumps (max. 1 kW) Sumps, tanks, flood storages Drainage sumps, pools	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	 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
Power Supply: 100–240 VAC, 20–48 VAC 22–65 VDC Ambient Temperature: +32°F+131°F Input: universal Output: relay, 420 mA, RS485, power supply for transmitters, SSR driver Display: dual 4-digits LED display Ingress Protection: IP20 / IP66	Power Supply: 230 VAC Ambient Temperature: -13°F+113°F (Control unit) Process Temperature: -13°F+140°F (Ultrasonic transmitter) Output: 1 relay NC contact, 250 VAC, 8A, AC1 Process Connection: Control unit: wall mountable Ultrasonic transmitter: 1" Ingress Protection: Control unit: IP65 Ultrasonic transmitter: IP68	Power Supply: 24 VDC Ambient Temperature: +14°F+122°F Input: RS485 Interface Output: - 2 relay 250 VAC, 8A, AC1 - 2 current outputs (420 mA) - 1 relay + 1 current output Process Connection: DIN rail mounted (module width: 1½") Ingress Protection: IP20	Power Supply: 110 V, 230 VAC, 24 VAC/DC Ambient Temperature: -13°F+130°F Input: 420 mA Switch Rating: 250 VAC, 8A, AC1 Ingress Protection: IP20 Process Connection: DIN rail mounted (module width: 1½") Certificate: ATEX	Power Supply: 10–36 VDC Ambient Temperature: -40°F+158°F Input: 420 mA Output: 420 mA, 420 mA + HART® Display: 6 digits LCD Ingress Protection: IP67 Certificates: ATEX, INMETRO
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UNICONT PM

SYSTEM COMPONENTS				
INTRINSICALLY SAFE ISOLATOR MODULES	POWER SUPPLY MODULES	TIME RELAY MODULES	COMMUNICATION MODULES	
 Isolated power supply for intrinsically safe transmitters DIN rail mountable Compatible with all devices using standard HART® communication 	DIN rail mountable Stabilised 12 or 24 VDC output Overvoltage and short circuit protection	 2- and 10-function types Wide time range Small size Universal power supply voltage DIN rail mountable Relay output 	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 variants available 24 V current loop power supply (SAT-504) Switchable HART® resistor Bluetooth® compatibility (SAT-504)	
 For high precision transmitters For transmitters operating in hazardous applications For supplying and isolating certified measurement instruments 	 Power supply for transmitters and sensors For inductive, capacitive proximity switches For infrared sensors Ultrasonic Proximity sensors 	 Process controlling of repeated tasks Timed cycling of pumps or compressors Timing of technologic equipments Sequential control 	Transferring measurement data to PC Connecting field transmitter to the PC via USB, RS485 or Bluetooth® Transferring measurement data to PC Suppose the PC via USB, RS485 or Bluetooth PC Transferring measurement data to PC Transf	
Power Supply: 20–35 VDC Output Voltage: 24 VDC Ambient Temperature: -4°F+140°F Input / Output: 420 mA + HART® Accuracy: 1 µA / 8 µA Response time: 5 ms / 100 ms Process Connection: DIN rail mounted (module width: 1") Ingress Protection: IP20 Certificates: ATEX, IEC Ex	Power Supply: 100–250 VAC / 50–60 Hz Consumption: max. 70 V A / 37 W Output voltage: 12.2 VDC ±2%; 2500 mA, 24.2 VDC ±2%; 1250 mA Ambient Temperature: -4°F+104°F Electrical connection: Terminal, wire cross section: max. AWG14 Process Connection: DIN rail mountable (module width: 2") Ingress Protection: IP20	Power Supply: 12–240 VAC/DC Time ranges: 0.1 s–100 days Output: relay, 250 V, 16A, AC1 Process Connection: DIN rail mountable (module width: 0.7") Ingress Protection: IP20	Power Supply: supplied from USB / 24 VDC / Powerbank Input: HART® Output: USB / RS485 / Bluetooth® Ingress Protection: IP20 Certificate: ATEX	
	T. T		1 2 2 4 5 B PTV SEL_CO 1 2 2 4 5 B PTV SEL_CO 1 2 2 4 5 B PTV SEL_CO 1 2 2 4 5 B	
	ISOLATOR MODULES Isolated power supply for intrinsically safe transmitters DIN rail mountable Compatible with all devices using standard HART® communication For transmitters operating in hazardous applications For supplying and isolating certified measurement instruments Power Supply: 20–35 VDC Output Voltage: 24 VDC Ambient Temperature: -4°F+140°F Input / Output: 420 mA + HART® Accuracy: 1 µA / 8 µA Response time: 5 ms / 100 ms Process Connection: DIN rail mounted (module width: 1") Ingress Protection: IP20 Certificates:	INTRINSICALLY SAFE ISOLATOR MODULES Isolated power supply for intrinsically safe transmitters DIN rail mountable Compatible with all devices using standard HART® communication For supplying and isolating certified measurement instruments Power Supply: 20–35 VDC Output Voltage: 24 VDC Ambient Temperature: -4°E+140°F Input / Output: 420 mA + HART® Accuracy: 1 µA / 8 µA Response time: 5 ms / 100 ms Process Connection: DIN rail mountable Stabilised 12 or 24 VDC output protection Power supply for transmitters and sensors For inductive, capacitive proximity switches For infrared sensors Ultrasonic Proximity sensors Power Supply: 100–250 VAC / 50–60 Hz Consumption: max. 70 V A / 37 W Output voltage: 12.2 VDC ±2%; 2500 mA, 24.2 VDC ±2%; 1250 mA Ambient Temperature: -4°E+104°F Electrical connection: Terminal, wire cross section: max. AWG14 Process Connection: DIN rail mountable (module width: 1") Ingress Protection: IP20 Certificates: IP20	INTRINSICALLY SAFE ISOLATOR MODULES	

NIPOWER

NITIME

UNICOMM

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SOFTWARES

PROCESS VISUALISATION

HART® CONFIGURATION SOFTWARE

- Communication with intelligent transmitters or switches and controllers
- Tank configuration
- Transmitter configuration
- Real-time trend analysis
- Data logging
- Database handling
- Archivina
- "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

- 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

Requirements:

Operating system:

MS Windows 10, 8, 7, Vista, XP, 2000 Input port: RS232, RS485 / USB

Free disk space required: 5 GB

Operation system: MS Windows 10, 8, 7, Vista, XP, 2000 Free disk space required: 100 MB Memory:

512 MB RAM HART® Modem: UNICOMM SAT-304, SAK-305, SAT-504





NIVISION EView2



LEVEL TRANSMITTERS

LEVEL SWITCHES

ANALYTICAL TRANSMITTERS

TEMPERATURE MEASUREMENT

INDUSTRIAL SENSORS

PRESSURE SENSORS

SIGNAL PROCESSING UNITS

SYSTEM COMPONENTS



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NIVELCO - official sponsor of the Hungarian Paralympic Team



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