



PRODUCT CATALOGUE · 2026

Measure. Take control.

End-to-end instrumentation solutions for flow, level, pressure and temperature measurement. Manufactured in Türkiye and calibrated in our TÜRKAK accredited laboratory.

- Flow Meters
- Level Sensors
- Temperature Sensors
- Mechanical Control
- Flow Sensors
- Pressure Sensors
- Process Indicators and Controllers
- Handheld Instruments and Data Logging

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MADE IN TÜRKİYE

TÜRKAK AB-0354-K

ISO/IEC 17025

ISO 9001

CE

THE EXPORT BRAND OF VFA ELEKTRONİK · 12 YEARS OF MANUFACTURING EXPERIENCE

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Who We Are

Net Flow is the export brand of VFA Elektronik, a manufacturer with 12 years of production and engineering experience. It was established in Türkiye to supply industrial measurement instruments and automation solutions to industry. As industry develops, quality and the consistency of that quality have become decisive factors for the manufacturer. For this reason producers need industrial measurement, data monitoring and control of the monitored data across their process parameters, both for energy efficiency and to meet quality standards.

With our young and dynamic team we develop accurate and innovative solutions for these needs. In measuring elements we supply and commission sensors for flow, level, pressure, temperature, humidity and analytical measurement. For data

monitoring we offer process indicators, paper and paperless recorders together with PID and PLC applications. Alongside these we also supply and commission actuators and valves in the field of mechanical control.

By aiming to deliver solutions with competitive cost, high quality and fast service, we have built a satisfied customer base. In line with this we increase our product range every day through our domestic and international sales representatives.

In the manufacture of float and capacitive level sensors we have made original design and reliable measurement our guiding principle. In the long term we aim to manufacture all measuring instruments locally and thereby reduce our country's dependence on imports in this field.

TÜRKAK

AB-0354-K accreditation

ISO/IEC 17025

Calibration laboratory

100+

Countries accepting our
certificates

12 Years

VFA Elektronik experience

CALIBRATION ASSURANCE

Electromagnetic flow meters are calibrated in our TÜRKAK accredited (AB-0354-K) ISO/IEC 17025:2017 laboratory over the 1–350 m³/h range with an uncertainty of $\pm 0.27\%$. A traceable calibration certificate, recognised in more than 100 countries through the EA and ILAC mutual recognition arrangements, is supplied with the instrument. All other products are supplied as Yerli Mali (locally manufactured) certified, with an ISO 9001 quality system and a CE declaration.

01

Flow Meters

Volumetric and mass flow measurement on liquid, gas and steam lines

[NT-VMF](#) Electromagnetic Flow Meter

[NT-VA](#) Variable Area Flow Meter (Rotameter)

[NT-TUF-2000](#) Ultrasonic Flow Meter

[NT-MTF](#) Metal Tube Rotameter

[NT-HGF](#) Helical Gear Flow Meter

[NT-CMF](#) Coriolis Mass Flow Meter

[NT-TRB](#) Turbine Flow Meter

[NT-VTX](#) Vortex Flow Meter

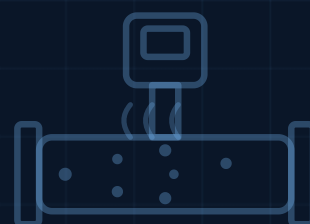
[NT-OCF](#) Open Channel Flow Meter

[NT-OGF](#) Oval Gear Flow Meter

[NT-TMF](#) Thermal Mass Flow Meter

[NT-CTG](#) Compact Thermal Gas Flow Meter

— CLICK A PRODUCT NAME TO JUMP TO ITS PAGE



NT - VMF

Electromagnetic Flow Meter

MADE IN TÜRKIYE

TÜRKAK · ISO 17025

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These flow meters measure conductive liquids (minimum 5 $\mu\text{S}/\text{cm}$) by relating the magnetic field generated by the coils, and the resulting voltage difference, to the velocity of the medium. Their high measuring accuracy and the absence of any moving parts inside the bore make them suitable for all non-corrosive conductive liquids.

TECHNICAL SPECIFICATIONS

Body Material	Carbon steel / Stainless steel 304-316 (opt.)
Connection Size	DN10 - DN3000
Measuring Range Velocity	0.2-2 L/min ... 12000-38000 m ³ /h 0.5-15 m/s
Coil Material	99% copper
Minimum Conductivity	5 $\mu\text{S}/\text{cm}$
Nominal Pressure	0.6 / 1.0 / 1.6 / 2.5 / 4.0 MPa
Liner Material	PTFE / Neoprene / Hard rubber / F46 / PFA / Polyurethane
Electrode Material	SS316L / Hastelloy B / Hastelloy C / Titanium / Tantalum / Platinum
Ambient Temperature	Rubber -25...+60 °C / PTFE -20...+150 °C
Accuracy	0.5% / $\pm 0.3\%$ / $\pm 0.2\%$ (opt.)
Power Supply	AC 85-250 V / DC 20-36 V
Output	4-20 mA, pulse, RS485 Modbus (opt.) / HART, Profibus (opt.)
Alarm	Empty pipe, excitation, low and high limit
Display	Three-line LCD
Ingress Protection	IP65 / IP67 / IP68 (opt.)
Certificates	CE / ISO 9001 / Calibration certificate

MODELS

Hygienic Type

Designed to prevent bacterial growth and suitable for all food applications; manufactured with a fully stainless steel body and either a hygienic or tri-clamp connection.

Miniature Type

Developed for low flow rates. With measuring ranges of 0.2-2 L/min and 5-100 L/min, it can be applied to connection diameters between DN3 and DN15. It is widely used in filling applications.

Insertion Type

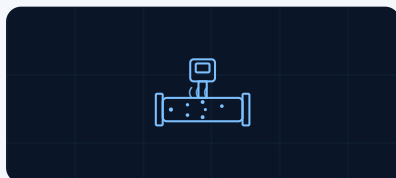
Designed for application diameters between DN100 and DN3000; this model is installed through a boss welded onto the pipe.

Battery Powered

Designed for applications where no power supply is available. A 3.6 V lithium battery provides long-term operation.

OPERATING PRINCIPLE

NT - VMF



- 1 The coils create a magnetic field across the pipe bore.
- 2 As the conductive liquid passes through the field, a **voltage is induced**.
- 3 The electrodes read this voltage; it is proportional to velocity.
- 4 The transmitter converts the value into volumetric flow.

APPLICATIONS

Drinking water, agricultural irrigation, fruit juices, chemicals and conductive liquids containing coarse particles.

INDUSTRIES SERVED

Wastewater plants, food industry, textile industry, heavy industry, machinery industry, chemical industry, petrochemicals, paper industry, pharmaceutical industry and agricultural irrigation.

CONTINUED

MODEL IMAGES



HYGIENIC TYPE



MINIATURE TYPE



INSERTION TYPE



BATTERY POWERED



PARTIALLY FILLED



ZERO STRAIGHT RUN (ØD)



SLURRY TYPE

NOTES

- The liquid being measured must be electrically conductive.
- The pipe must be completely full while the flow passes through it.
- The components within the medium must be homogeneously mixed.
- If the liquid itself induces a magnetic effect, the magnetic field of the device changes and recalibration is required.
- It must be installed according to the mechanical connection guide to ensure laminar flow.

NT-TRB

Turbine Flow Meter

MADE IN TÜRKIYE

ISO 9001

CE



A turbine that can rotate freely is placed inside the body in order to detect the velocity of the medium. The rotational rate of the turbine is directly proportional to the velocity of the medium. By calculating velocity $\times$ cross-section and ensuring laminar flow, flow measurement with $\pm 0.2\%$ accuracy is possible. Stainless steel and plastic bodied versions are available with flanged, threaded, tri-clamp, insertion and wafer connections.

TECHNICAL SPECIFICATIONS

Body Material	AISI 304-316 stainless steel / PTFE
Connection Size	DN4 - DN200
Medium	Particle-free liquids
Flow Range	0.04 - 800 m ³ /h
Accuracy	$\pm 0.2\%$ / $\pm 0.5\%$ / $\pm 1\%$
Temperature Range	-20...+80 °C, opt. -20...+120 °C, opt. 200 °C
Repeatability	0.1% of reading
Turbine Material	CD4MCU stainless steel
Turndown Ratio	Standard 10:1, opt. 20:1
Maximum Pressure	16 / 25 / 40 / 63 bar, opt. up to 400 bar
Output	Square wave (pulse), opt. 4-20 mA
Power Supply	12 - 24 VDC
Ingress Protection	IP65
Indicator	Compact or remote type 2-line LCD
Certificates	CE / ISO 9001 / Calibration certificate

MODELS

Hygienic Type

Models developed for food applications; mechanical installation is made with a tri-clamp or clamp type connection that prevents bacterial growth.

Plastic Model

For line diameters between 1/8" and 2" threaded connections it offers a measuring range of 0.15-200 L/min. Models manufactured entirely from PTFE are available for acidic applications.

Insertion Type

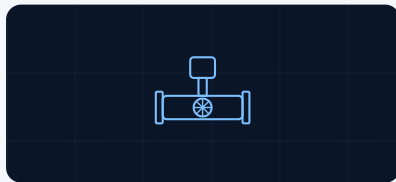
Designed for application diameters between DN100 and DN3000; it is installed through a boss welded onto the pipe.

High Temperature

A model designed with an additional cooling extension for a temperature rating of 200 °C.

OPERATING PRINCIPLE

NT-TRB



- 1 The flow spins the turbine rotor inside the line.
- 2 The sensor counts blade passes as **pulses**.
- 3 Pulse frequency is proportional to flow velocity.
- 4 Totalised and instantaneous flow are calculated.

APPLICATIONS

Particle-free liquids, water lines, milk lines, food lines, liquids where conductivity is not available, chemicals and filling units.

INDUSTRIES SERVED

Machinery industry, chemical industry, test rigs, pharmaceutical industry, paper industry, heavy industry.

NOTES

- Not recommended in media containing particles or at points where the rotor could become blocked.
- The pipe must be completely full while the flow passes through it.
- For abrasive liquids the fluid details must always be stated during product selection.
- It must be installed according to the mechanical connection guide to ensure laminar flow.

NT-VA / NT-DK800

Variable Area Flow Meter (Rotameter)

MADE IN TÜRKIYE

ISO 9001

CE



It consists of a weight-calibrated float that moves freely inside a tapered tube made of glass or rigid plastic. As the medium passes through the tube it moves the float upward, and the instantaneous flow rate can be determined from this movement.

TECHNICAL SPECIFICATIONS

Body Material	Aluminium / SS316 stainless steel (epoxy coated), PVC, polypropylene
Maximum Temperature	70 °C ... 150 °C (depending on model)
Connection Size	1/4" NPT ... 1" threaded, flanged and tri-clamp; DN65-DN150
O-Ring	Viton
Medium	Liquid and gas
Measuring Range – Liquid	0.25 L/h ... 15000 L/h
Measuring Range – Gas	0.05 L/min ... 4300 L/h
Accuracy	1% – 2.5% of full scale
Measuring Tube	Glass / rigid plastic
Maximum Pressure	10 – 16 bar

MODELS

NT-VA Series

Used to determine the instantaneous flow of liquid or gaseous media. It has a glass tube and metal body; it is installed vertically in the line and, as the flow passes from bottom to top, the float changes position without friction. Suitable for high-temperature service.

NT-DK800 Series

A model with a glass tube and metal body. Instantaneous flow can be monitored on the glass scale; its compact design and integral control valve allow precise flow adjustment.

NT-LZS Series

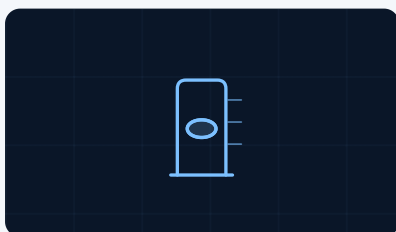
A PVC bodied model for the instantaneous flow of liquid and corrosive liquid media. The rate of change depends on the weight of the float together with the density and viscosity of the medium.

NT-LZM Series

A polypropylene bodied model for liquid and gaseous media. The control valve allows precise flow adjustment.

OPERATING PRINCIPLE

NT-VA



- 1 Liquid or gas flows upward through a tapered tube.
- 2 The float is held in **equilibrium** by the flow force.
- 3 Equilibrium height is proportional to flow rate.
- 4 The value is read directly from the scale.

APPLICATIONS

Gases and liquids.

INDUSTRIES SERVED

Treatment plants, machinery manufacturing, recycling plants, heat treatment plants, test rigs, chemical industry.

NT-VTX

Vortex Flow Meter

MADE IN TÜRKIYE

ISO 9001

CE



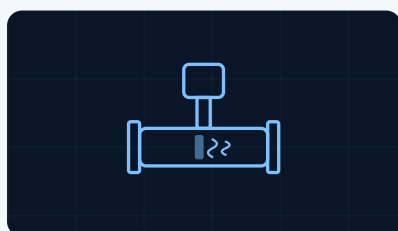
Flow measurement based on the principle of the eddies that a flow stream forms as it swirls around an obstruction. In short, the flow value is derived from the differential pressure variation produced by the vortices generated by the bluff body inside the meter body.

TECHNICAL SPECIFICATIONS

Medium	Liquid, gas, steam
Measuring Range	DN15-DN300 (flanged and wafer), DN100-DN2000 (insertion type)
Temperature Range	-20...250 °C, opt. 350 °C
Maximum Pressure	16 / 25 / 40 bar
Accuracy	±0.5% / ±1.0% / ±1.5% of full scale – insertion type: ±2.5%
Reynolds Number	Re > 4000
Signal & Communication Output	4-20 mA (2-wire), pulse (3-wire), RS485 Modbus
Ambient Temperature	-25...55 °C
Power Supply	24 VDC, 3.6 V lithium battery
Body Material	SS304, opt. SS316

OPERATING PRINCIPLE

NT-VTX



- 1 Vortices form behind the bluff body in the flow path.
- 2 Vortex shedding frequency is **proportional to velocity**.
- 3 A piezo sensor detects the pressure oscillation.
- 4 Flow is calculated for steam, gas and liquids.

APPLICATIONS

Solvents and chemicals, oil and gas, refrigerants and steam units.

INDUSTRIES SERVED

Chemical industry, paper industry, recycling plants, petrochemicals, energy, mining, iron and steel, textile industry.

NOTES

- Suitable for demanding process conditions.
- Temperature and pressure data can also be monitored during flow measurement.
- Can be used where available pipe run is limited.
- Actual values can be obtained with temperature and pressure compensation.

NT-TUF-2000

Ultrasonic Flow Meter

MADE IN TÜRKIYE

ISO 9001

CE



These flow meters determine the velocity of liquids inside a closed pipe with the help of sound-wave transducers clamped onto the pipe surface, without any mechanical intrusion into the pipe. Flow values with 1% accuracy can be obtained at the reading terminals from the proportional calculation of flow velocity.

TECHNICAL SPECIFICATIONS

Connection Size	DN15 ... DN6000
Measuring Range	0.01 ... 32 m/s
Accuracy	1% of reading
Temperature Range	-40...110 °C, opt. 160 °C
Indicator	Backlit 4×16 / 2×20 character LCD
Cable Length	5 metres, opt. 10 metres
Communication	RS232 / RS485
Signal Output	4-20 mA, relay (fixed type)
Data Logging	2000-record memory
Ingress Protection	IP65 / IP68

MODELS

NT-TUF-2000H

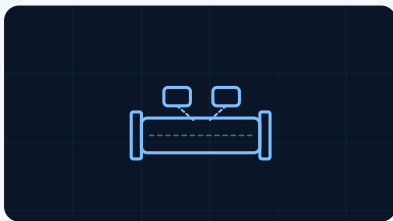
Portable type; supplied with a carrying case, mounting straps and tape measure. Field measurement with a rechargeable battery.

NT-TUF-2000S/M

Fixed / DIN-rail type; 220 VAC or 24 VDC supply, IP68 protection, RS485 and 4-20 mA output.

OPERATING PRINCIPLE

NT-TUF-2000



- 1 Two opposing transducers send ultrasonic signals.
- 2 The signal travelling with the flow arrives **faster**.
- 3 The transit-time difference is measured.
- 4 The difference is converted into flow velocity.

APPLICATIONS

Water, wastewater, chemicals, acids, abrasive and viscous liquids.

INDUSTRIES SERVED

Treatment plants, petrochemicals, hydroelectric power plants, food industry, paper industry, pharmaceutical industry, automotive industry, municipalities and public institutions.

NOTES

- Provides measurement without damaging the pipe.
- Three transducer sizes provide a wide measuring range.
- The viscosity of the medium must be constant and it must be used on homogeneous, completely full pipes.
- Measurement options for materials such as steel, stainless steel, cast iron, PVC, copper and aluminium.

NT-OCF

Open Channel Flow Meter

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ISO 9001

CE



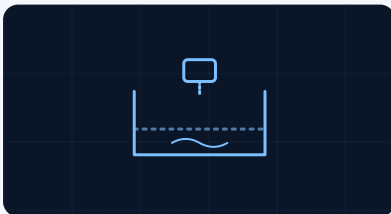
These flow meters are installed over a weir or dam in an open channel and determine flow by taking the velocity and depth of the shaped flow stream using a non-contact (ultrasonic) method. They provide high accuracy with 1 mm resolution of change. An electric heating feature is available for extremely cold applications. Thanks to interference isolation they are unaffected by electrical noise; instantaneous and totalised quantities can be monitored.

TECHNICAL SPECIFICATIONS

Measuring Range	0 ~ 99999 L/s or m ³ /h
Level Resolution	1 mm
Indicator	14-digit, two-line backlit LCD
Flow Units	m ³ /h - L/s
Output	4-20 mA and RS485 serial communication (Modbus RTU)
Output Alarms	Up to 6 programmable relays; pulse output for cumulative flow
Temperature Rating	-40...+70 °C
Ingress Protection	IP67 (main unit) / IP68 (probe)
Power Supply	DC 24 V (±5%) 0.2 A / AC 220 V (±20%) 0.1 A
Supported Weirs	Open weirs and channels, Parshall flumes (ISO), right-angle triangular and rectangular weirs
Probe Measuring Range	0.00 ~ 4.00 m (level)
Probe Material	ABS / PVC / PTFE

OPERATING PRINCIPLE

NT-OCF



- 1 A weir or flume constricts the open channel.
- 2 The sensor measures water **level** without contact.
- 3 The level-flow relationship is applied.
- 4 Instantaneous and totalised flow are obtained.

APPLICATIONS

Water treatment, irrigation, industrial wastewater and other industrial areas.

INDUSTRIES SERVED

Streams and rivers with an existing weir structure, municipalities and public institutions, treatment and wastewater plants, hotel and tourism operations, industry and agricultural irrigation.

NOTES

- The steps stated in the installation guide must be followed according to the weir type.
- Probe selection must be made carefully according to the medium used.

NT-MTF

Metal Tube Rotameter

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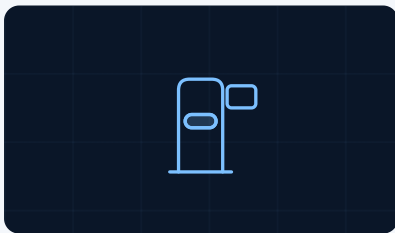
A variable area flow meter model used for liquid, gas and steam measurement; it measures on the basis of the movement of a magnetic float. Metal tube rotameters, which withstand hydrodynamic effects, are mostly used on vertical lines, but with a special mechanical design they can also be used horizontally. Their fine-graduated indicator and wide scale ratio make them easy to read.

TECHNICAL SPECIFICATIONS

Measuring Range	Liquids 2.5-100000 L/h; gases 0.07-3000 m³/h
Temperature Rating	-25...+100 °C, opt. high temperature 300 °C
Accuracy	±2.5%, opt. high accuracy ±1.5%
Output	Opt. 4-20 mA, contact, LCD monitoring panel
Power Supply	24 VDC, 3.6 V lithium battery
Max. Working Pressure	16 bar
Pipe Connection	Flanged, threaded, quick coupling
Ingress Protection	IP65, IP67

OPERATING PRINCIPLE

NT-MTF



- 1 The float rises inside the metal tube with the flow.
- 2 Its position is transferred outward by **magnetic coupling**.
- 3 The indicator pointer follows this position.
- 4 Readings are possible on opaque and high-pressure lines.

APPLICATIONS

High temperature and high pressure applications, chemical media, water applications, explosive gases and liquids, abrasive media, analogue monitoring applications requiring no electrical connection.

INDUSTRIES SERVED

Chemical plants, power plants, heavy industry, machinery industry, petrochemical industry, paper industry, gas filling plants.

NOTES

- High temperature and pressure data must be observed.
- The scale range can be specified.
- A hygienic clamp connection can be provided for food applications.
- Body and ingress protection class can be selected according to corrosive and explosive media.

NT-06F

Oval Gear Flow Meter

MADE IN TÜRKIYE

ISO 9001

CE



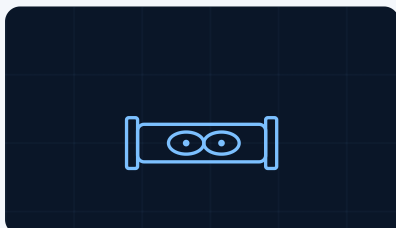
These flow meters measure by means of two synchronised oval gears that rotate in proportion to the flow velocity. The rotational speed determines the flow velocity and, with the cross-section calculation, the instantaneous and totalised flow quantity is obtained. They provide easy installation and high accuracy on media with high temperature and viscosity. They can be used at very low flow rates and produce a high-resolution pulse.

TECHNICAL SPECIFICATIONS

Connection	DN6 - DN100 mm
Accuracy	±0.5% (opt.)
Max. Pressure Rating	100 bar
Measuring Range	0.5 mL/min - 240 L/min
Output	Pulse, opt. 4-20 mA
Power Supply	5 - 24 VDC

OPERATING PRINCIPLE

NT-06F



- 1 The liquid fills the cavity between two oval gears.
- 2 Each rotation carries a **fixed volume**.
- 3 Rotations are counted by the sensor.
- 4 High accuracy is achieved on viscous liquids.

APPLICATIONS

Industrial oils, hydraulic oils, chemicals of low or high viscosity, high temperature and high pressure liquids, liquid food applications and refined oils.

INDUSTRIES SERVED

Automotive industry, machinery industry, petrochemical and paint plants, chemical plants, oil production plants, beverage industry.

NOTES

- The product must be selected according to the viscosity of the medium.
- High temperature and pressure data must be observed.
- Media containing particles must be filtered.
- Body options are available for abrasive media.

NT-HGF

Helical Gear Flow Meter

MADE IN TÜRKIYE

ISO 9001

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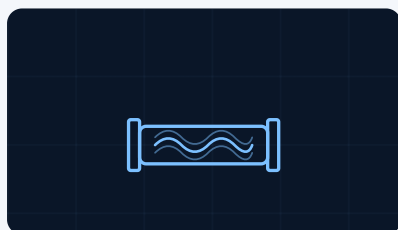
Helical flow meters are a measuring method designed to determine the flow of viscous media by placing two cycloidal helical rotors inside a cylindrical housing, so that these rotors form a closed volume against the inner wall and the movement of the medium depends solely on their rotation. This method achieves very high accuracy with minimum leakage, uninterrupted flow and minimum pressure loss.

TECHNICAL SPECIFICATIONS

Connection	DN6 - DN100
Accuracy	±0.5%
Max. Pressure Rating	100 bar
Measuring Range	0.5 mL/min - 240 L/min
Output	Pulse, opt. 4-20 mA
Power Supply	5 - 24 VDC

OPERATING PRINCIPLE

NT-HGF



- 1 Two intermeshing helical rotors turn.
- 2 Each rotation transfers a defined **volume**.
- 3 Rotation pulses are counted.
- 4 Measurement is possible on highly viscous products.

APPLICATIONS

Media of varying viscosity, paraffin and adhesive media, food applications, chemical media, grease and similar oils.

INDUSTRIES SERVED

Filling and dosing systems, paper industry, heavy industry, insulation and coating industry, test rigs, paraffin industry, food industry.

NOTES

- Its robust construction provides a long service life.
- Body options are available for abrasive media.
- An ideal choice for low flow rates and media of varying viscosity.

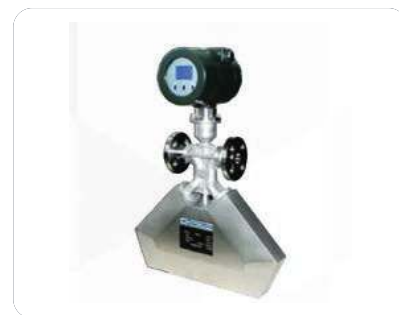
NT-TMF

Thermal Mass Flow Meter

MADE IN TÜRKIYE

ISO 9001

CE



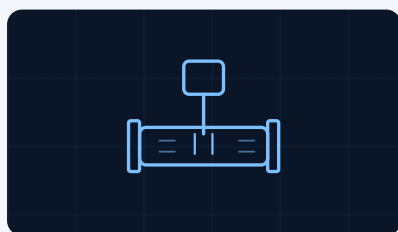
These flow meters are designed for gaseous media on the basis of thermal dispersion and measure using the constant differential temperature method. Heat is generated on the measuring probe by an applied current; the power level rises to counteract the cooling effect of the gas flow, and this level is directly proportional to the mass flow rate. Instantaneous and totalised flow quantity is determined from this.

TECHNICAL SPECIFICATIONS

Connection Sizes	DN80-DN4000 (insertion), DN10-DN2000 (inline)
Velocity	0.5 ~ 100 Nm/s (20 °C, 101.33 kPa)
Accuracy	±2.5% (insertion) / ±1% (inline)
Operating Temperature	-40...+220 °C (sensor), -20...+45 °C (transmitter)
Maximum Pressure	Insertion ≤2.5 MPa, inline ≤4.0 MPa
Output	4-20 mA (optoelectronically isolated, max. load 500 Ω)
Alarm Output	1-2 relay channels, normally open, 10 A / 220 VAC or 5 A / 30 VDC
Communication	RS485 (optoelectronically isolated), HART
Ingress Protection	IP65

OPERATING PRINCIPLE

NT-TMF



- 1 A heated probe is placed in the flow stream.
- 2 As gas passes, the probe **cools down**.
- 3 The cooling rate depends on mass flow.
- 4 No pressure or temperature correction is required.

APPLICATIONS

Dry air and gases (propane, nitrogen, oxygen, hydrogen and similar).

INDUSTRIES SERVED

Power and heating plants, natural gas power stations, chemical industry, machinery industry.

NOTES

- The device can also be used for gas leak detection.
- It has high vibration resistance.

NT-CMF

Coriolis Mass Flow Meter

MADE IN TÜRKIYE

ISO 9001

CE



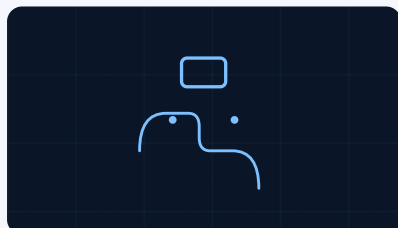
With the sensors located at the inlet and outlet of a specially designed flow tube, the signals coming from the sensors are in phase when there is no flow. The moment flow begins, the resulting vibration creates a phase difference between the signals; this difference is directly proportional to the mass flow passing through the tubes. Flow is compensated by a temperature sensor mounted on the tubes; these products can also determine the density of the medium.

TECHNICAL SPECIFICATIONS

Accuracy	$\pm 0.2\%$, opt. $\pm 0.1\%$
Density Measuring Range	0.3–3000 g/cm ³ (accuracy ± 0.002 g/cm ³)
Temperature Rating	-50...+200 °C, opt. -200...+300 °C (accuracy ± 1 °C)
Output	4–20 mA, opt. flow rate / density / temperature signal
Communication	RS485, Modbus protocol
Protection & Pressure Rating	IP67 – 4.0 MPa

OPERATING PRINCIPLE

NT-CMF



- 1 The measuring tubes are vibrated in a controlled way.
- 2 The flow creates a **phase shift** in the tubes.
- 3 The shift is proportional to mass flow.
- 4 Density and temperature are measured as well.

APPLICATIONS

All liquid and gas applications; predominantly petroleum derivatives, chemical industry, medical industry and heating plants.

INDUSTRIES SERVED

Chemical plants, petrochemical and fuel industry, power plants, paper industry, textile industry, refrigeration industry, machinery industry, pharmaceutical industry.

NOTES

- Provides mass flow, density and temperature measurement together.
- Allows easy horizontal and vertical installation.
- Requires no straight pipe run at the inlet and outlet.
- Provides measurement independent of the physical properties of the medium.

NT-CTG

Compact Thermal Gas Flow Meter

MADE IN TÜRKIYE

ISO 9001

CE



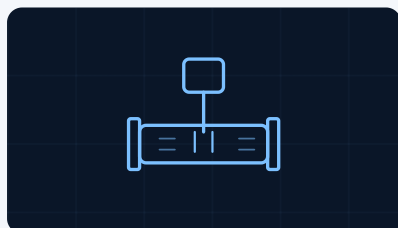
Designed on the basis of economical thermal dispersion, it adopts the constant differential temperature method to measure gas flow. It offers advantages such as small size, easy installation, high reliability and high accuracy.

TECHNICAL SPECIFICATIONS

Connection Sizes	DN8 - DN300
Accuracy	±1.5% of reading + 0.3% of full scale
Measurable Gases	N ₂ , Ar, O ₂ , CO ₂ and similar process gases
Operating Temperature	-30...+230 °C / relative humidity <90%
Maximum Pressure	5.0 MPa
Output	4-20 mA and pulse output, Modbus, M-Bus communication
Alarm Output	1-2 relay channels, normally open, 10 A / 220 VAC or 5 A / 30 VDC
Ingress Protection	IP65

OPERATING PRINCIPLE

NT-CTG



- 1 A heated probe is placed in the flow stream.
- 2 As gas passes, the probe **cools down**.
- 3 The cooling rate depends on mass flow.
- 4 No pressure or temperature correction is required.

APPLICATIONS

Process gases, natural gas lines and compressed air systems.

INDUSTRIES SERVED

Power plants, chemical industry, machinery industry, gas filling plants.

NOTES

- Offers easy calibration for all gases.
- Offers remote control, configuration and calibration.

02

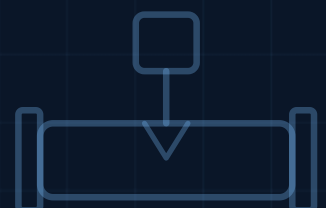
Flow Sensors

Monitoring the presence of flow, switching and visual checking

[NT-FSW](#) Flow Switches

[NT-FSG](#) Sight Flow Indicators

— CLICK A PRODUCT NAME TO JUMP TO ITS PAGE



NT-FSW

Flow Switches

MADE IN TÜRKIYE

ISO 9001

CE



A flow switch is used to sense the flow inside pipework. By detecting the movement of liquids within the pipe it indicates whether or not there is flow. They are a reliable choice for many machine builders in flow control and in heating and cooling systems.

TECHNICAL SPECIFICATIONS

Line Connection Sizes	DN8 – DN200
Temperature Rating	+200 °C
Pressure Rating	25 bar (thermal type 6.3 MPa)
Material	304 SS – PP
Signal Output	Reed contact 26 VA / 20 W; relay, PNP, NPN, 4–20 mA (thermal)
Power Supply	24 V ±10% DC (thermal type)
Display	10 × tri-colour LED (flow velocity) + 1 × LED (temperature)
Velocity Flow Range	4 ... 400 cm/s (accuracy ±2 ... ±8 cm/s)
Ingress Protection	IP65 / IP67

MODELS

Paddle Flow Switches

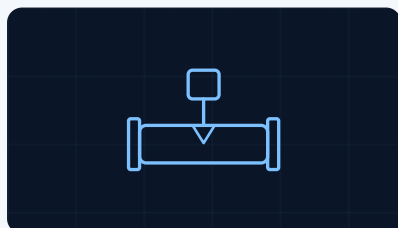
Paddle type flow switches and sensors are installed vertically in the line. With their T-body or direct paddle models they are practical and easy to use; having a direct relay output makes it easy to connect them straight to many drive elements.

Thermal Flow Switches

Flow switches that monitor liquid-based flow and operate on the calorimetric principle. When the flow velocity moves outside the limit value set by the user, they reverse their current state; status can be read from the LEDs on the device.

OPERATING PRINCIPLE

NT-FSW



- 1 A paddle or probe in the flow path changes position.
- 2 At the set flow rate the **contact** switches over.
- 3 The relay output is sent to the control panel.
- 4 Pump protection and alarms are provided.

APPLICATIONS

Appliances such as water heaters, combi boilers and heaters, cooling water lines, power plants and mines. Special models are available for explosive and demanding processes.

INDUSTRIES SERVED

Machinery manufacturing, heating and cooling systems, power plants, mining.

NT-FSG

Sight Flow Indicators

MADE IN TÜRKIYE

ISO 9001

CE



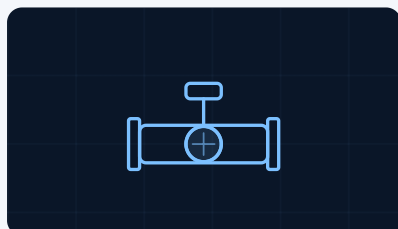
A sight flow indicator is an element used to observe the flow in closed pipe circuits from various directions. Sight flow indicators are installed before and after steam traps to monitor steam leakage, and are used in industries such as food and pharmaceuticals to provide visual verification of the medium. The glasses used in sight flow indicators are special; they are also known as tempered soda-lime glass.

TECHNICAL SPECIFICATIONS

Line Connection Sizes	1/4" - 2"
Temperature Rating	-30...+180 °C
Working Pressure	16 bar
Material	AISI 304 stainless steel, opt. 316 stainless steel
Sight Glass Material	Heat-resistant glass

OPERATING PRINCIPLE

NT-FSG



- 1 The flow passes through a transparent sight glass.
- 2 The operator confirms flow **visually**.
- 3 A vane or ball movement shows the direction.
- 4 It is clear whether the line is flowing or not.

APPLICATIONS

Cold water, hot water, steam, compressed air, LPG, LNG, asphalt, fuel oil, ceramic slip and similar.

INDUSTRIES SERVED

Food industry, pharmaceutical industry, power plants, chemical industry, ceramics industry.

03

Level Sensors

Continuous and point level measurement on liquids and solids

[NT-ULS](#) Ultrasonic Level Transmitters

[NT-HLS](#) Hydrostatic Level Transmitters

[NT-MLS](#) Rotary Paddle Level Switches

[NT-CSW](#) Capacitive Level Switch

[NT-DSW](#) Diaphragm Level Switch

[NT-MLI](#) Magnetic Level Indicators

[NT-RCS](#) Cable Type Capacitive Level Switch

[NT-RLS](#) Radar Level Transmitters

[NT-CLS](#) Capacitive Level Transmitters

[NT-VLS](#) Vibrating Fork Level Switches

[NT-SSW](#) Side-Mounted Level Switch

[NT-WLD](#) Water Leak Detector

[NT-CDS](#) Conductive Level Switches

[NT-ELES](#) Float Level Sensors

— CLICK A PRODUCT NAME TO JUMP TO ITS PAGE



NT-ULS

Ultrasonic Level Transmitters

MADE IN TÜRKIYE

ISO 9001

CE



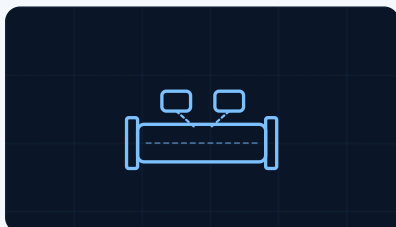
Ultrasonic level sensors are instruments designed for non-contact distance, level and volume measurement on solids and liquids. They consist of an ultrasonic sensor, a signal converter and a control unit. The sound wave that the easily mounted sensor sends into the tank strikes the material and is detected on its return, thereby determining the level. False readings are prevented by the filtering feature.

TECHNICAL SPECIFICATIONS

Measuring Range	0-1 ... 0-20 metres
Accuracy	0.5% - 1.0%
Resolution	3 mm or 0.1%
Temperature Rating	Transmitter -20...+60 °C, sensor -20...+80 °C
Ingress Protection	Transmitter IP65, sensor IP68
Output	4-20 mA
Power Supply	24 VDC

OPERATING PRINCIPLE

NT-ULS



- 1 Two opposing transducers send ultrasonic signals.
- 2 The signal travelling with the flow arrives **faster**.
- 3 The transit-time difference is measured.
- 4 The difference is converted into flow velocity.

APPLICATIONS

Water treatment and distribution plants, chemical and petrochemical plants, food plants, closed and open tanks.

INDUSTRIES SERVED

Sand, cement clinker, wastewater, clean water, dusty solid particles, food and feed, plastic granules.

NOTES

- The steps stated in the installation guide must be followed.
- Probe selection must be made carefully according to the medium used.

NT-RLS

Radar Level Transmitters

MADE IN TÜRKIYE

ISO 9001

CE



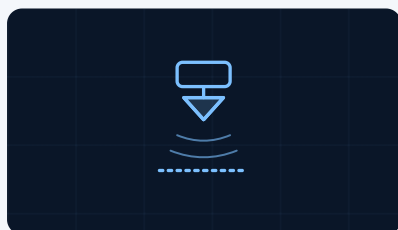
Radar level sensors emit frequency sweeps that increase over time through pulse management; these signals, reflected back from the measured surface, are collected by the antenna and the level of liquids and solids is thereby determined. With their advanced technology and different application methods such as non-contact and guided wave, they simplify measurement in demanding processes. The measured value can be interpreted as distance, level, volume or mass.

TECHNICAL SPECIFICATIONS

Measuring Range	0-10 m / 0-30 m / 0-50 m / 0-70 m
Accuracy	±2 mm
Power Supply	24 VDC - 220 VAC
Temperature Rating	-60...+60 °C / -60...+150 °C / -60...+250 °C
Ingress Protection	Transmitter IP65, sensor IP68
Signal & Communication Output	4-20 mA, HART, RS485 Modbus, Profibus PA, Foundation Fieldbus
Frequency Band	26 GHz - 70 GHz

OPERATING PRINCIPLE

NT-RLS



- 1 The antenna emits a high-frequency radar wave.
- 2 The wave **reflects** off the liquid surface.
- 3 Distance is derived from the round-trip time.
- 4 Dust, vapour and foam do not affect it.

APPLICATIONS

Sand, cement clinker, wastewater, clean water, dusty solid particles, high-temperature and viscous liquids; milk and dairy products, soft drinks, oil, petrol, diesel, dolomite, calcite, lime, flour and feed, plastic granules.

INDUSTRIES SERVED

Ceramics industry, cement plants, treatment plants, food industry, petrochemical industry, plastics processing and raw material plants, sand and stone quarries, lime and gypsum plants.

NT-HLS

Hydrostatic Level Transmitters

MADE IN TÜRKIYE

ISO 9001

CE



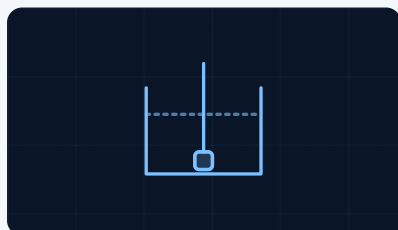
The hydrostatic level transmitter is specially designed as a submersible type. As the liquid level rises, the pressure it exerts on the bottom increases linearly. Based on this principle, the unit submerged in the liquid measures the level precisely in proportion to the rise of the liquid level.

TECHNICAL SPECIFICATIONS

Measuring Range	1 - 100 metres
Accuracy	0.5%
Maximum Pressure	200% FS
Electrical Connection	Cable length according to the level value
Supply Voltage	+12...30 VDC
Ingress Protection	IP68
Body	1.4404 (AISI 316L), opt. 1.4462 (duplex) - titanium
Operating Temperature	-25...+85 °C
Output	4-20 mA, 0-10 VDC or 0.5-4.5 VDC

OPERATING PRINCIPLE

NT-HLS



- 1 The probe is submerged to the bottom of the tank.
- 2 The liquid column creates **pressure** on the probe.
- 3 Pressure is converted to level using density.
- 4 A continuous level signal is generated.

APPLICATIONS

Wells, water tanks, fuel tanks, lake level, river level, sea level and reservoirs.

INDUSTRIES SERVED

Irrigation systems, watercourses, tanks, municipalities and public institutions.

NOTES

- The cable length must be stated when ordering.
- A special vented cable is used for the measurement and must therefore be protected.

NT-CLS

Capacitive Level Transmitters

MADE IN TÜRKIYE

ISO 9001

CE



The capacitive level transmitter offers high-accuracy proportional measurement in the level management of solid and liquid materials, despite dust, foam, dirt or similar particles. The capacitive measuring principle is based on detecting the capacitance value between the electrode and the tank surface, which varies with the mass present. After installation, the sensor electrode is immersed into the material down to the required point.

TECHNICAL SPECIFICATIONS

Measuring Length	150 - 400 - 650 - 1150 mm
Process Temperature	-20...+100 °C
Ingress Protection	IP68
Max. Working Pressure	10 bar
Detection Delay	Max. 1 s
Supply Voltage	12 - 35 VDC, 1.2 W
Signal Output	Relay, 1 changeover contact, AC max. 250 VAC / 2 A / 500 VA

OPERATING PRINCIPLE

NT-CLS



- 1 The probe and tank wall form a capacitor.
- 2 As the level changes, **capacitance** changes.
- 3 The electronics measure this change.
- 4 Level is detected in both solids and liquids.

APPLICATIONS

In the building industry: gypsum, lime, fine sand, dolomite, calcite, perlite plaster, cement, stone, coal, pulverised coal dust; in the food industry: feed, seed, flour, salt and sugar.

INDUSTRIES SERVED

Building industry, food industry, construction industry.

NOTES

- Unaffected by dust and soil at the point of use.
- The unit must be kept away from the material inlet.
- Where conditions could damage the unit, fitting a baffle at the measuring point is recommended.

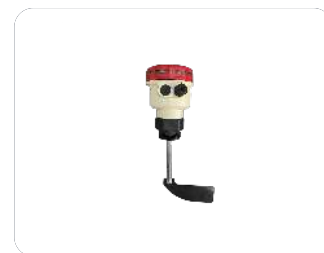
NT-MLS

Rotary Paddle Level Switches

MADE IN TÜRKIYE

ISO 9001

CE



This type of level switch is an instrument designed for level control of coarse-grained material inside silos and containers. The operating principle is very simple: the paddle probe of the level switch mounted on the tank wall starts to rotate at low speed; when coarse-grained material rises to the probe level it applies a counter-force to the paddle and prevents it from turning, so the motor stops and provides a contact that can be used for control purposes.

TECHNICAL SPECIFICATIONS

Connection Terminal	Cable entry up to 2 mm ² (AWG 14) cross-section
Power Supply	24 VDC – 220 VAC
Temperature Rating	Ambient -20...+80 °C, process -5...+100 °C
Material	Stainless steel SS316
Connection Size	R1½" – R1" – R2"
Min. Detection Density	250 g/L (with standard paddle)
Max. Silo Internal Pressure	0.5 bar

APPLICATIONS

Bulk solid level control in the construction, building, food and plastics industries.

INDUSTRIES

Construction sector (gypsum, lime, cement, stone crushing plants), food (feed, seed, flour, salt, sugar, tea, pulses), plastics industry.

NT-VLS

Vibrating Fork Level Switches

MADE IN TÜRKIYE

ISO 9001

CE



Vibrating level sensors are designed for point level detection on liquid and solid materials. They work on the principle that the vibration on the fork is damped when it comes into contact with material. Thanks to the small number of moving parts, maintenance requirements are low and they operate reliably in environments with high vibration.

TECHNICAL SPECIFICATIONS

Application	Liquid and solid materials
Material	Stainless steel
Mechanical Connection	R1", opt. flanged, tri-clamp
Max. Temperature & Pressure	150 °C ... 1.5 MPa
Output	PNP-N0
Power Supply	24 VDC

APPLICATIONS

Solid products in powder, granule and particle form, as well as liquids.

INDUSTRIES

Food, pharmaceutical and chemical industries, building and construction industry.

NT-CSW

Capacitive Level Switch

MADE IN TÜRKIYE

ISO 9001

CE



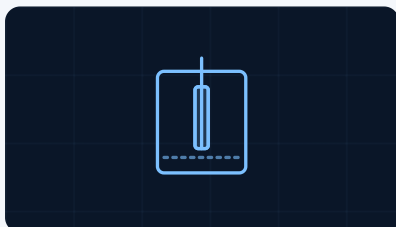
Once the sensing element at the tip of the Magcap type level switch becomes surrounded by the raw material at the point of use, the RF power it emits decreases. When this decrease exceeds the configured sensitivity setting, an output signal is generated. Sensitivity can be adjusted on the device according to the dielectric constant and the properties of the material.

TECHNICAL SPECIFICATIONS

Measuring Length	150 - 400 - 650 - 1150 mm
Process Temperature	-20...+100 °C
Ingress Protection	IP68
Max. Working Pressure	10 bar
Detection Delay	Max. 1 s
Supply Voltage	12 - 35 VDC, 1.2 W
Signal Output	Relay, 1 changeover contact, AC max. 250 VAC / 2 A / 500 VA

OPERATING PRINCIPLE

NT-CSW



- 1 The probe and tank wall form a capacitor.
- 2 As the level changes, **capacitance** changes.
- 3 The electronics measure this change.
- 4 Level is detected in both solids and liquids.

APPLICATIONS

Solid products in powder, granule and particle form.

INDUSTRIES SERVED

Building industry, food industry, construction industry.

NOTES

- Unaffected by dust and soil at the point of use.
- Depending on the application point, a baffle may be required where the unit could be damaged.

NT-SSW

Side-Mounted Level Switch

MADE IN TÜRKIYE

ISO 9001

CE



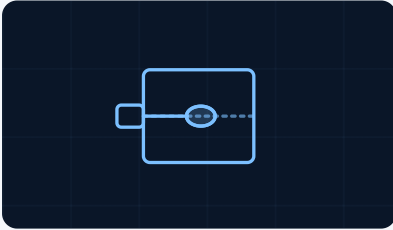
F1 type magnetic level switches are used for liquid level measurement in all types of tank. They have a wide field of use thanks to their ability to operate without an external power supply, side-mounting capability, wide pressure and temperature range and fully stainless steel wetted parts.

TECHNICAL SPECIFICATIONS

Pressure Rating	16 bar
Temperature Rating	Max. 150 °C
Connection Type	Square flange
Flange Material	AISI 316
Housing	Aluminium
Adjustment	50 - 100 - 200 mm
Density	> 0.7 kg/L
Switch Capacity	250 VAC, 15 A, NO+NC

OPERATING PRINCIPLE

NT-SSW



- 1 The float is side-mounted on the tank wall.
- 2 When the level changes, the float **pivots**.
- 3 The magnet inside triggers a reed contact.
- 4 An NO/NC relay output is obtained.

APPLICATIONS

Waste and clean water tanks, acid and caustic tanks, fuel and oil tanks, all pressurised and unpressurised vessels.

INDUSTRIES SERVED

Shipbuilding industry, fuel and oil plants, chemical industry.

NOTES

- Requires no external power supply.
- Can operate under high vibration.

NT-DSW

Diaphragm Level Switch

MADE IN TÜRKIYE

ISO 9001

CE



The diaphragm solid level switch is the most economical method of measuring the level of bulk material in a store. It can be used in open and unpressurised tanks. The full and empty status of dusty, powdered, granular and pelletised bulk materials in the silo can be monitored. The membrane must always be in contact with the material being monitored. As material poured into the silo builds up, the membrane closes; the resulting pressure pushes the diaphragm back and the mechanism actuates the contact. As the material decreases, the contact returns to its original position.

TECHNICAL SPECIFICATIONS

Body Material	Nitrile, NBR, FPM, stainless steel
Connection	Round flange
Output	1 × NO/NC micro switch
Maximum Temperature	200 °C

APPLICATIONS

Full/empty control of bulk solid materials in silos.

INDUSTRIES

Construction, building, food and plastics industries.

NT-WLD

Water Leak Detector

MADE IN TÜRKIYE

ISO 9001

CE



It can be used with confidence in all areas where flooding is possible and critically important. At the moment of flooding it warns with a built-in siren, allowing rapid action to be taken. Through its relay output it controls units such as pumps or solenoid valves to stop the leak. A 3-second detection delay feature is provided to prevent false alarms.

TECHNICAL SPECIFICATIONS

Indicator	3 alarm LEDs
Siren	1 built-in siren
Number of Sensors	Up to 3 sensors can be connected
Power	24 VDC
Output	Relay, 2 A / 125 °C, NO, NC

APPLICATIONS

Server rooms, basements, pump stations and critical equipment areas.

INDUSTRIES

Building automation, data centres, industrial facilities.

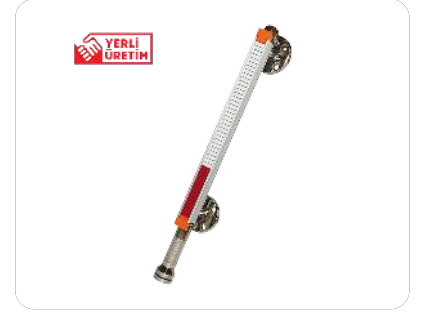
NT-MLI

Magnetic Level Indicators

MADE IN TÜRKIYE

ISO 9001

CE



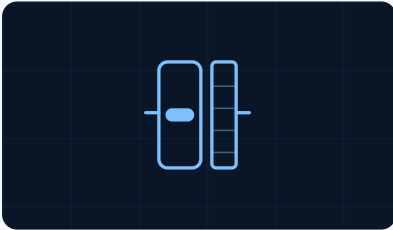
The MLG type magnetic level indicator is used for the continuous measurement, monitoring and display of liquid level. A change of level in the tank also changes the level of the liquid inside the bypass chamber by the same amount, according to the principle of communicating vessels. The magnetic float inside the indicator therefore moves and acts on the magnetic flaps on the outer surface of the bypass chamber, causing them to rotate 180° about their own axis. As the liquid level rises the white flaps turn red, and as it falls the red flaps turn white.

TECHNICAL SPECIFICATIONS

Pressure Rating	10 bar (opt. 40 bar)
Temperature Rating	150 °C (opt. 350 °C)
Connection Types	Threaded G 1/2", 3/4", 1" - flanged DN15, DN20, DN25
Chamber & Float	Stainless steel
Indicator Profile	Aluminium
Output	4-20 mA, 0-10 V, contact output

OPERATING PRINCIPLE

NT-MLI

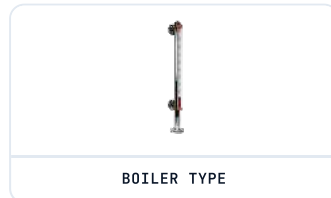


- 1 The float in the bypass chamber rises with the liquid.
- 2 Its magnet **flips** the flag scale.
- 3 The colour change indicates the level.
- 4 No power is required and no maintenance is needed.

MODEL IMAGES



EX-PROOF TYPE



BOILER TYPE

APPLICATIONS

Water tanks, condensate tanks, deaerators, fuel tanks, steam boilers, underground tanks, aggressive and toxic liquids, liquefied gases, all pressurised and unpressurised vessels.

INDUSTRIES SERVED

Shipbuilding industry, chemical industry, refineries, power plants.

NT-CDS

Conductive Level Switches

MADE IN TÜRKIYE

ISO 9001

CE



Conductive level switches are used for liquid level control in tanks and boilers. As they have no moving parts they can be used in critical environments and with conductive liquids containing solid particles, of low density and of high viscosity.

TECHNICAL SPECIFICATIONS

Electrode Material	304 stainless steel, opt. 316 stainless steel
Connection & Housing Material	Delrin
Output	1 × NO/NC micro switch
Maximum Temperature & Pressure	60 °C ... 6 bar
Number of Electrodes	Max. 3

OPERATING PRINCIPLE

NT-CDS



- 1 Electrodes of different lengths reach into the tank.
- 2 When liquid touches an electrode, the circuit **conducts**.
- 3 The relay unit detects the conduction.
- 4 Full, empty and intermediate levels are controlled.

APPLICATIONS

An economical and reliable solution for booster set applications, water level control on steam boilers and various conductive liquid tanks.

INDUSTRIES SERVED

Power plants, building automation, chemical industry.

NT-RCS

Cable Type Capacitive Level Switch

MADE IN TÜRKIYE

ISO 9001

CE



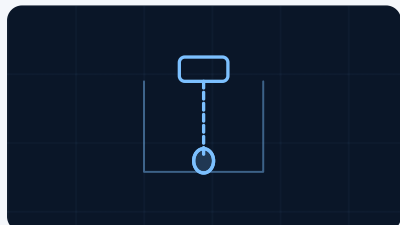
Designed to detect the instantaneous (point) level of powdered and granular solids in a storage area. Its operating principle is that materials in contact with the probe surface create a change in capacitance, and these instruments use that change to determine the level by means of electronic components.

TECHNICAL SPECIFICATIONS

Output (Contact)	1 × NC-NO relay (220 VAC/5 A - 14 VDC/20 A)
Cable & Weight Material	304 SS, opt. 316 SS
Length	1 metre ... 20 metres
Housing Material	Delrin
Power Supply	24 VDC

OPERATING PRINCIPLE

NT-RCS



- 1 A cable-suspended probe is lowered into tall silos.
- 2 As material approaches, **capacitance** changes.
- 3 The electronics trigger once the threshold is passed.
- 4 Point level is obtained in deep silos.

APPLICATIONS

Granular solids, lime, sand, coal dust, cement, clinker and grains such as wheat and maize.

INDUSTRIES SERVED

Grain silos, cement plants, lime and gypsum plants, foundries.

NOTES

- The cable length can be specified according to the application point.
- The cable can be used insulated or uninsulated.

NT-ELES

Float Level Sensors

MADE IN TÜRKIYE

ISO 9001

CE



NT-ELES float level sensors are instruments designed to determine liquid level by making use of the buoyancy principle: a magnetic, movable float travelling along a guide tube triggers, through its magnetic field, a reed contact placed inside the guide tube, thereby switching the circuit on or off. Depending on the intended use they are produced as continuous (online) level and point level versions; continuous level sensors are called level transmitters, while point level sensors are called level switches.

TECHNICAL SPECIFICATIONS

Housing & Tube Material	Stainless steel 304, 316, 316L / Delrin and PVDF / brass
Float Material	Stainless steel 304, 316, 316L / PVDF, NBR, polyurethane
Electrical Connection	M12 terminal, DIN 43650, terminal block, shielded cable
Connection Type	R 1/4" 1/2" 1" 1 1/4" 1 1/2" R 2" male thread or flange DN15-DN100
Measuring Range	50 mm - 5000 mm
Float Type	Spherical or cylindrical
Min. Buoyancy Density	0.6 g/cm ³
Pressure Rating	10 bar, opt. 30 bar
Temperature Rating	-20...+120 °C, opt. 180 °C
Accuracy (Transmitters)	5 mm - 10 mm - 15 mm
Transmitter Signal Output	4-20 mA / 0-10 V / ohm
Switch Signal Output	NO-NC contact / relay
Optional Temperature Sensor	PT100 - PT1000

MODELS

NT-ELES11 Series

Designed to determine the instantaneous (online) level of liquid media. It can produce analogue signal outputs and communication outputs for transmission or monitoring; with different mechanical connection designs and length options from 50 mm to 3000 mm it provides a wide field of use.

NT-ELES7 Series

Level switches designed to provide instantaneous level detection in liquids, such as full-empty status or at selectable points. With a wide length range from 50 mm to 5000 mm, top or side mounting options and flanged, threaded and clamp mechanical connection options, they provide economical and reliable measurement.

OPERATING PRINCIPLE

NT-ELES



- 1 The float rides along a guide tube.
- 2 Its position is transferred **magnetically**.
- 3 A resistance chain converts position into a signal.
- 4 A continuous 4-20 mA output is provided.

APPLICATIONS

Water and all water-based media; water reservoirs, waste water tanks, yacht and ship water tanks, hydraulic oil tanks, chemical tanks, soft drink and low-viscosity liquid vessels.

INDUSTRIES SERVED

Treatment plants, machine builders, yacht and shipbuilding sector, chemical sector, textile sector, hotels and swimming pools, oil and fuel sector, food sector.

NOTES

- An economical solution.
- Application-specific manufacturing is possible.
- Easy to install and mount.
- Not recommended for adhesive and high-density liquids.

04

Pressure Sensors

Pressure transmitters, switches and gauges

[NT-BT](#) Standard Series (OEM) Pressure Transmitters

[NT-DMP](#) Differential Pressure Transmitters

[NT-DMPX](#) Smart Pressure Transmitters

[NT-TG](#) Pressure Switches

[NT-EPI](#) Flush Diaphragm Pressure Transmitters

[NT-EXNT](#) Ex-Proof Pressure Transmitters

[NT-EPD](#) Pressure Transmitters and Switches with Display

[NT-A300](#) Pressure Gauges

— [CLICK A PRODUCT NAME TO JUMP TO ITS PAGE](#)



NT-BT

Standard Series (OEM) Pressure Transmitters

MADE IN TÜRKIYE

ISO 9001

CE



Pressure is the magnitude of the force that liquids and gases exert per unit area. Equipment that converts the pressure value it senses into a defined electronic signal can be described as a pressure transmitter.

TECHNICAL SPECIFICATIONS

Connection Size	G1/4" - G1/2"
Measuring Range	From 0...2.5 bar up to 0...600 bar; 0...100 mbar options
Accuracy	±0.5% FS / ±0.3% FS
Temperature Range	-40...+125 °C
Output Signal	4...20 mA, 0...5 VDC, 1...6 VDC, 0...10 VDC, 0.5...4.5 VDC ratiometric

APPLICATIONS

Non-adhesive and particle-free liquids, non-aggressive gases.

MODELS

NT-BT Series

G1/4" connection, measuring ranges from 0...2.5 bar up to 0...600 bar.

NT-FPT Series

G1/4" - G1/2" connection; 0...100 mbar to 0...600 bar, with vacuum options (0...-1 bar).

INDUSTRIES SERVED

Wastewater plants, food industry, textile industry, heavy industry, machinery industry, chemical industry, petrochemicals, paper industry, pharmaceutical industry, hydroelectric power plants.

NT-EPI / NT-NAT / NT-BCT

Flush Diaphragm Pressure Transmitters

MADE IN TÜRKIYE

ISO 9001

CE



Equipment that measures by sensing the force applied to the diaphragm located at the mechanical connection point and converting it into an electrical signal. Suitable for adhesive media such as liquids containing waste and particles, viscous liquids and dusty gases.

TECHNICAL SPECIFICATIONS

Connection Size	1/4" - 1/2", G1/2" male flush membrane
Measuring Range	From 0...1 bar up to 0...600 bar
Accuracy	±0.4% FS / ±0.5% FS
Temperature Range	-40...+85 °C / -40...+125 °C
Output Signal	4...20 mA, 0...5 VDC, 1...6 VDC, 0...10 VDC

APPLICATIONS

Liquids containing waste and particles, viscous liquids, dusty gases and adhesive liquids.

INDUSTRIES

Wastewater and treatment plants, food industry, machinery industry, chemical and petrochemical industry, HVAC industry.

NT-DMP / NT-BFT / NT-DPT

Differential Pressure Transmitters

MADE IN TÜRKIYE

ISO 9001

CE



Products designed to determine the difference (Δp) between two separate pressure values. They cover a broad range, from low differential pressure models with hose connections up to high-pressure differential measurement.

TECHNICAL SPECIFICATIONS

Connection Size	1/4", M20x1.5, G1/2", hose connection
Measuring Range	-100 Pa ... +7000 Pa; 0 bar ... 200 bar
Differential Pressure Range	From 100 mbar up to 25 bar; ± 60 mbar to ± 100 bar
Accuracy	$\pm 0.5\%$ FS; $\pm 1.5\%$, opt. $\pm 0.25\%$
Temperature Range	-40...+125 °C / -10...+50 °C
Output Signal	4...20 mA, 0...5 VDC, 1...5 VDC, 0-10 V, opt. Modbus

APPLICATIONS

Pneumatic systems, air compressors, air cooling and heating systems, water pumps and liquid tanks.

INDUSTRIES

Medical and chemical industry, test systems, HVAC, machinery industry.

NT-EXNT

Ex-Proof Pressure Transmitters

MADE IN TÜRKIYE

ISO 9001

CE



Instruments specially designed for the measurement of flammable and explosive liquids and gases. With an Ex-proof approved housing they provide safe measurement in hazardous areas.

TECHNICAL SPECIFICATIONS

Connection Size	1/4"
Measuring Range	200 Pa ... 10 MPa
Differential Pressure Range	From ± 60 mbar up to ± 100 bar
Accuracy	$\pm 0.075\%$ FS (opt. $\pm 0.05\%$ FS)
Temperature Range	-40...+125 °C (opt. 400 °C)
Output Signal	4...20 mA / HART / MBAS
Ex-Proof Approval	Ex d IIC T6, Ex ia IIC T6

APPLICATIONS

Flammable gases such as LNG and LPG derivatives, flammable and combustible liquids.

INDUSTRIES

Shipbuilding industry, Ex Zones 0/1/2 (gas) and 20/21/22 (dust), mining industry, petrochemical industry, coal mines, grain silos, sugar factories.

NT-DMPX

Smart Pressure Transmitters

MADE IN TÜRKİYE

ISO 9001

CE



Equipment that provides pressure measurement with advanced microprocessor technology and temperature compensation. They offer high accuracy and capability.

TECHNICAL SPECIFICATIONS

Connection Size	1/4"
Measuring Range	0...100 mbar up to 0...1000 bar
Accuracy	±0.075% FS (opt. ±0.05% FS)
Temperature Range	-40...+125 °C (opt. 400 °C)
Output Signal	4...20 mA / HART / MBAS
Ex-Proof Approval	Ex d IIC T6, Ex ia IIC T6

APPLICATIONS

All liquid, gas and steam applications.

INDUSTRIES

Machinery industry, test and calibration systems, chemical industry, heavy industry, defence industry, petrochemical industry.

NT-EPD

Pressure Transmitters and Switches with Display

MADE IN TÜRKİYE

ISO 9001

CE



Consists of a programming and display screen added compactly onto the pressure transmitter. Thanks to its easy and practical operation it allows instantaneous data monitoring in the field.

TECHNICAL SPECIFICATIONS

Connection Size	G1/4" - G1/2"
Measuring Range	From 0...0.2 bar up to 0...600 bar
Accuracy	±0.5% FS
Temperature Range	-25...+85 °C
Output Signal	4...20 mA, 0...10 VDC, switchable mA or V
Switching	2 × PNP transistor (opt. contact output)

APPLICATIONS

All liquids and gases.

INDUSTRIES

Machine tools, all hydraulically operated machinery, HVAC equipment (heating, air conditioning, ventilation units), refrigeration units, water treatment machinery.

NT-TG / NT-KP

Pressure Switches

MADE IN TÜRKIYE

ISO 9001

CE



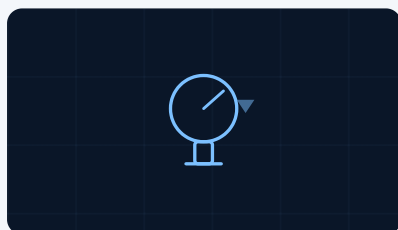
Pressure measuring equipment produced for switching, safety and alarm purposes at one or more set points based on the pressure data it senses.

TECHNICAL SPECIFICATIONS

Connection Size	G1/4", G1/8"
Measuring Range	-200 mbar...-800 mbar and 0.1...600 bar; -0.2...7.5 / 2...14 bar
Accuracy	<5%
Temperature Range	-30...+100 °C (opt. 250 °C); -40...+60 °C
Output Signal	NO / NC / changeover (NO&NC)

OPERATING PRINCIPLE

NT-TG



- 1 The set pressure value is reached.
- 2 The mechanism changes the **contact** position.
- 3 The relay signal is sent to the panel.
- 4 Pumps and compressors are protected.

APPLICATIONS

Particle-free liquids, air, steam and non-aggressive gases.

INDUSTRIES SERVED

Machine components, hydraulics, industrial applications.

NT-A300 / NT-S100 / NT-C600

Pressure Gauges

MADE IN TÜRKIYE

ISO 9001

CE



Available in variants such as standard type, diaphragm type, industrial type and contact type for gas, liquid and steam lines, this is still the most widely used product group today as the simplest method of monitoring pressure. Mechanical connection variants that can be configured to the process are available; some models are manufactured with contacts so that they can switch. Our product portfolio includes dial diameters from 40 mm to 200 mm, manufactured for pressure ranges from -1 bar to 1000 bar including vacuum lines.

TECHNICAL SPECIFICATIONS

Dial Diameters	40, 50, 63, 100, 160, 200 mm
Measuring Range	-1 bar ... 1600 bar
Accuracy	Cl. 1.0 / Cl. 1.6 / Cl. 2.5
Temperature Range	+60 °C ... +200 °C (depending on type)
Body	Stainless steel / brass

MODELS

Standard Series

G1/8" (40 mm) – G1/4" B (50, 63 mm) – G1/2" B (100, 160 mm). -1...0 bar to 0...400 bar. Cl. 2.5 / Cl. 1.6.

Stainless Series

G1/4" B (63 mm) – G1/2" B (100, 160 mm). -1...0 to 0...1600 bar. Dry type max. +200 °C, glycerine filled max. +100 °C.

Capsule Diaphragm

63/100/160 mm dial. -25...0 mbar to 0...600 mbar. Cl. 1.6 (positive), Cl. 2.5 (vacuum).

Flush Series Diaphragm

DN40, DN50 connection. -1...0 bar to 0...40 bar. Dry type max. +150 °C.

Hygienic Union Connection

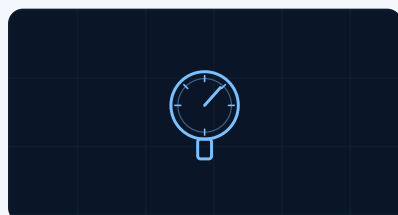
DN25/32/40/50 (DIN 11851), 1½" and 2" (SMS). -1...0 bar to 0...40 bar.

Clamp Diaphragm

DN25/32/40/50 (DIN 32676), 1", 1½", 2" (ISO 2852). -1...0 bar to 0...40 bar.

OPERATING PRINCIPLE

NT-A300



- 1 The Bourdon tube **uncoils** under pressure.
- 2 The movement is transferred to a gear mechanism.
- 3 The pointer deflects across the scale.
- 4 Direct reading without any power supply.

APPLICATIONS

Liquids, steam and gases.

INDUSTRIES SERVED

Shipbuilding industry, clean water transport systems, wastewater systems, chemical and petrochemical industry, power plants, food and beverage industry, dairy machinery, pharmaceutical industry, machinery industry.

05

Temperature Sensors

Thermocouples, resistance thermometers and temperature-humidity transmitters

[NT-TC](#) Thermocouples

[NT-RTD](#) Resistance Thermometers (PT100 / PT1000)

[NT-HT](#) Temperature and Humidity Sensors

CLICK A PRODUCT NAME TO JUMP TO ITS PAGE



NT-TC

Thermocouples

MADE IN TÜRKIYE

ISO 9001

CE



Instruments designed to determine, observe and control the temperature of an environment or of materials. They can be examined under three headings: resistance thermometers, thermocouples and infrared thermometers.

TECHNICAL SPECIFICATIONS

Type	J - K - T - E - N - R - S - B
Wire Diameter	0.35 - 0.50 - 0.80 - 1 - 1.6 - 2 - 2.5 - 3 mm
Protective Sheath	SS316 - Inconel 600/800 - 1.4749 - 1.4841 (1.4845), ceramic KER 530/610/710 (C799), silicon carbide, silicon nitride (Si ₃ N ₄), PTFE, PVDF, PFA
Connection Types	R or NPT 1/4", 3/8", 1/2", 3/4", 1"; DIN or ASME flange
Number of Elements	Single / dual / multiple
Signal Output	4-20 mA - 0-10 V
Housing / Head	DIN 43729 aluminium, IP67 (opt. Ex-proof, bakelite)

MODELS

Head Type Thermocouples

Straight type thermocouples are widely used in various processes from -200 °C up to 2320 °C. Process conditions must be defined very carefully in order to extend the service life of the thermocouple. Type L thermocouples are used for temperature measurement of molten metals and salt baths.

Platinum Thermocouples

Preferred for high-temperature measurement. They are manufactured with a construction suited to process conditions of 1200 °C - 1600 °C. Preferred in the cement, aluminium, copper, iron and steel, ceramics and glass industries.

Special Thermocouples

Custom products can be produced with the variable connection types and physical constructions required by the process. Models with a PP housing head and PTFE sheath for acidic environments, and Ex-proof protected models for explosive atmospheres, are among these.

Mineral Insulated & Bayonet

Mineral insulated thermocouples, manufactured with single or dual elements, can be used between -40 °C and 1600 °C. Bayonet thermocouples are generally preferred in simple processes; they are produced with cable and spring loading.

OPERATING PRINCIPLE

NT-TC



- 1 Two dissimilar metals are joined at the tip.
- 2 The temperature difference produces a small **voltage**.
- 3 The voltage is converted into temperature.
- 4 Measurement is possible at high temperatures.

APPLICATIONS

In all solid, liquid, gas and steam applications.

INDUSTRIES SERVED

Machinery industry, cement plants, glass and ceramics industry, food industry, pharmaceutical industry, chemical and petrochemical industry, heavy industry and defence industry, test rigs, HVAC, agriculture industry.

NOTES

- The correct type must be selected according to the temperature.
- Custom manufacturing is available on request.

NT-RTD

Resistance Thermometers (PT100 / PT1000)

MADE IN TÜRKIYE

ISO 9001

CE



Platinum resistance thermo elements are temperature sensors capable of measuring temperature between $-200\text{ }^{\circ}\text{C}$ and $+450\text{ }^{\circ}\text{C}$ with precise measuring capability. They may be designated as PT100, PT1000 and similar.

TECHNICAL SPECIFICATIONS

Type	PT100, PT200, PT500, PT1000, PT2000
Protective Sheath	SS316 - SS310 - (PTFE-PVDF-PFA)
Sheath Diameters	Manufacturing options in the 3 mm ... 22 mm range
Element Construction	Core, Class A, Class B, foil, glass, ceramic
Number of Elements	1×, 2×, 3×, 6×
Mechanical Connection	R 1/2" (opt. customer specific)
Immersion Length	50 mm ... 500 mm
Power Supply	10 - 30 VDC
Signal Output	4-20 mA, 0-10 V, 2×PNP (display model)
Accuracy	$\pm 0.5\%$ FS

MODELS

Head Type Thermo Elements

SS316 - SS310 protective sheath, 4-6 mm sheath diameters, Class A / Class B element construction, 4-20 mA or 0-10 V signal output.

Special Thermo Elements

Models with a PP housing head and PTFE sheath for acidic environments, and Ex-proof protected models for explosive atmospheres. Manufacturing options in the 3-22 mm sheath diameter range.

Penetration Thermo Elements

Temperature sensors with pointed tips suitable for insertion. Their application processes are food and meat processing plants; they may have stainless steel or PTFE handles.

Plug-in and Display Types

Models generally developed for machine applications or for easy reading at the process point. The output can be selected from the display; data can be monitored and configured from a phone via the Android application (NFC).

OPERATING PRINCIPLE

NT-RTD



- 1 The resistance of the platinum element changes with temperature.
- 2 $100\ \Omega$ at $0\text{ }^{\circ}\text{C}$ is taken as reference.
- 3 The resistance is measured precisely.
- 4 High-accuracy temperature is obtained.

APPLICATIONS

In all solid, liquid, gas and steam applications.

INDUSTRIES SERVED

Machinery industry, cement plants, glass and ceramics industry, food industry, pharmaceutical industry, chemical and petrochemical industry, heavy industry and defence industry, test rigs, HVAC, agriculture industry.

NOTES

- The correct type must be selected according to the temperature.
- Custom manufacturing is available on request.

NT-HT

Temperature and Humidity Sensors

MADE IN TÜRKIYE

ISO 9001

CE



NT-HT series temperature and humidity transmitters are precise measuring devices that measure with a capacitive sensor. Thanks to the redesigned sensor and integrated technology they can be used under almost all conditions. Even if the sensor comes into direct contact with liquid, it is constructed to continue measuring once the liquid on it has evaporated.

TECHNICAL SPECIFICATIONS

Display Features	2 × 14 mm 4-digit special display (15 m reading distance)
Signal Output	4-20 mA / 0-10 V for temperature and humidity, or 2×3 A relay + RS485 Modbus
Ingress Protection	IP65 (opt. IP68)
Accuracy	0.2 °C, 3% rH
Temperature Measuring Range	-40...+120 °C
Humidity Measuring Range	0-100 %rH
Power Supply	24 VDC (12...36 VDC / 100-240 VAC depending on model)
Connection Type	Wall mount, threaded mount, inline mount
Probe Material	Stainless steel, brass with filter, threaded stainless steel, PVC sensor body
Filter Material	Stainless steel or PTFE
Cable Length	5 m (opt. up to 30 m)

MODELS

NT-HT100 Series

Can easily be used in different applications either standard wall mounted or with its extendable cable. The display model allows convenient local monitoring; economical versions without a display are also available. In addition to relay and analogue signal outputs, an optional RS485 Modbus communication module can be added.

NT-HT101 Series

An inline transmitter developed for air ducts or immersion temperature-humidity applications; options with and without display, stainless steel, brass and plastic probes, and filter options specially developed for pressurised environments are available.

NT-HT-W10

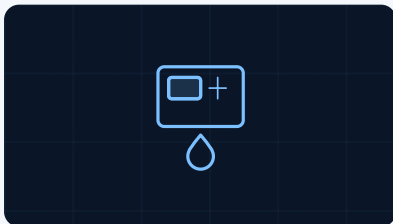
Developed for monitoring temperature and humidity data over GSM. Reading of 2 external analogue, 2 logic and 16 Modbus parameters plus GSM communication features have been added. Logging and web upload intervals for all data are configurable.

NT-HT13/14

Special series products from which a 4-20 mA output can be taken for temperature and humidity; practical in application and economical.

OPERATING PRINCIPLE

NT-HT



- 1 The capacitive element absorbs moisture.
- 2 **Capacitance** changes together with humidity.
- 3 The electronics calculate relative humidity.
- 4 It is reported together with temperature.

APPLICATIONS

Cold storage rooms, poultry farming, office temperature-humidity monitoring systems, isolated rooms.

INDUSTRIES SERVED

Food storage, agriculture and livestock, building automation, pharmaceuticals and logistics.

06

Process Indicators and Controllers

Monitoring, control and signal transmission

[NT-TCS](#) Flow Rate and Totaliser Indicators

[NT-DI](#) Universal Input Indicators

[NT-EPD 11](#) Compact Universal Indicators

[NT-UPC](#) Controllers

[NT-UT](#) Signal Converters

— CLICK A PRODUCT NAME TO JUMP TO ITS PAGE



NT-TCS / NT-FBT

Flow Rate and Totaliser Indicators

MADE IN TÜRKIYE

ISO 9001

CE



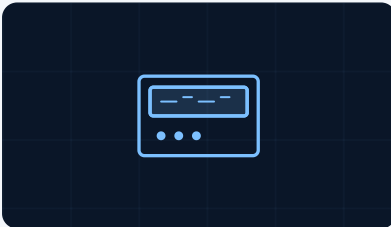
Control instruments designed for monitoring, controlling and transmitting the measurements made in industrial processes. They are developed to monitor instantaneous and totalised flow quantity, and to control and transmit it through different output options.

TECHNICAL SPECIFICATIONS

Product Code	NT-TCS / NT-FBT / NT-TCS37
Size	72×72 mm / 96×96 mm / 36×72 mm
Display	2×6 digits (8 mm) / 6 digits (8 mm)
Switching	2×8 A relay / 1×8 A relay
Analogue Output	4-20 mA / 0-20 mA
Communication	RS485 Modbus ASCII/RTU
Supply Voltage	12 VDC - 24 VDC - 220 VAC
Counting Rate	10 kHz

OPERATING PRINCIPLE

NT-TCS



- 1 The sensor signal is wired to the panel input.
- 2 The device **scales** and displays the signal.
- 3 Alarm limits are defined.
- 4 Relay and serial outputs are provided.

APPLICATIONS

Panel monitoring and control of flow rate and totalised flow measurements.

INDUSTRIES SERVED

Treatment plants, food industry, chemical industry, machinery manufacturing.

NT-DI / NT-UPI

Universal Input Indicators

MADE IN TÜRKIYE

ISO 9001

CE



Simple type control indicators produced for observing and controlling process values across all universal input types (compatible with temperature sensors and sensors with analogue outputs). Outputs can be obtained by defining different alarm options.

TECHNICAL SPECIFICATIONS

Product Code	NT-DI 377 / NT-UPI
Size	35×77 mm / 48×48, 72×72, 48×96, 96×48 mm
Display	4 digits (10 mm) / 2×4 digits (upper 14 mm, lower 10 mm)
Input	Thermocouple, PT100, PTC, NTC, 4-20 mA, 0-10 V, ohm
Switching	4×8 A relay / 2×8 A relay (opt. 3×8 A)
Analogue Output	4-20 mA, 0-20 mA, 0-10 V
Communication	RS485 Modbus ASCII/RTU
Accuracy	0.5% / 0.3%
Supply Voltage	12 VDC - 24 VDC - 220 VAC

OPERATING PRINCIPLE

NT-DI



- 1 The sensor signal is wired to the panel input.
- 2 The device **scales** and displays the signal.
- 3 Alarm limits are defined.
- 4 Relay and serial outputs are provided.

APPLICATIONS

Panel monitoring of temperature and analogue sensors.

INDUSTRIES SERVED

Machinery manufacturing, food, chemicals, power plants.

NT-EPD 11

Compact Universal Indicators

MADE IN TÜRKIYE

ISO 9001

CE



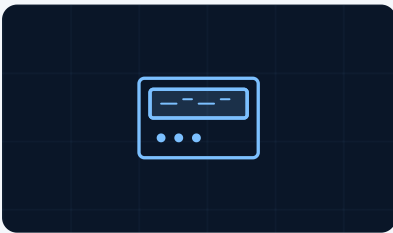
The NT-EPD 11 digital indicator is used to take the 4-20 mA signal from transmitters and convert and display it in the required engineering unit. It is designed for easy fitting and removal on 2-wire transmitters with a DIN 43650 plug connection. The product offers high accuracy, stability and ease of use. It is a convenient solution for adding a display and alarm set points to pressure or other transmitters.

TECHNICAL SPECIFICATIONS

Applications	Display of 4-20 mA current value or percentage, 2 independent alarm/switch outputs
Input Signal	4-20 mA (2-wire)
Power Source	4-20 mA 2-wire loop powered, max. voltage drop 8 VDC
Output Signal	4-20 mA 2-wire signal output
Field Operation	3 buttons, all parameters can be changed locally
Display	Dual row 5-bit/8-bit, 7/16 segment backlit LCD, -19999~99999
Accuracy and ADC	0.1% FS ± 1 bit / 24 bit
Number of Switches	2-way PNP / NO
Switch Function	High set, low set, window function, hysteresis
Engineering Units	kPa, MPa, Pa, bar, mbar, psi, mH ₂ O, Torr, atm, kg, N, °C, °F, K, %RH, PPM, pH, m, mm, m/s, Ω , mV, V

OPERATING PRINCIPLE

NT-EPD 11



- 1 The sensor signal is wired to the panel input.
- 2 The device **scales** and displays the signal.
- 3 Alarm limits are defined.
- 4 Relay and serial outputs are provided.

APPLICATIONS

Adding a field display and alarm to transmitters.

INDUSTRIES SERVED

All industrial process applications.

NT-UPC / NT-TC / NT-PRFC

Controllers

MADE IN TÜRKIYE

ISO 9001

CE



Used for observing and controlling process values in applications measured with temperature sensors and sensors with analogue outputs. On-Off, proportional (P), proportional + integral (PI) and proportional + integral + derivative (PID) operating modes are available for the control output. They can operate integrated with other systems via the Modbus communication protocol.

TECHNICAL SPECIFICATIONS

Accuracy	0.3% - 0.5%
Control Output	Relay output (8 A@250 VAC)
Analogue Output	4...20 mA, 0...20 mA
Communication	RS485 Modbus RTU/ASCII
Resolution	1 °C / 0.1 °C (PT100, for the 0...100 °C range)
Supply Voltage	220 VAC, 24 VDC, 12 VDC (to be stated when ordering)

MODELS

Universal Input Controllers

NT-UPC 4 / 7 / 49. 48×48, 72×72, 48×96 mm. Universal process input 4...20 mA, 0...20 mA, 0...60 mV, 0...10 V, thermocouple (J,K,R,S,T), PT100 (with lead compensation). 2 relay outputs 8 A@250 VAC, analogue output, RS485 Modbus.

Temperature Controllers

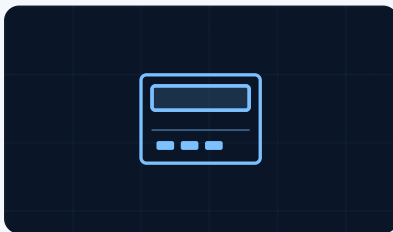
NT-TCS 377-X / NT-TC 4 / NT-TC 38. All thermocouple types, PT100, PTC and NTC input. ON/OFF or time proportional (P) operation, heating/cooling function, alarm output and delay time can be configured.

Ramp/Soak Controllers

NT-PRFC7. 72×72 mm. A ramp/profile controller designed for measuring and controlling temperature or any process value in industry. Profiles of up to 20 steps.

OPERATING PRINCIPLE

NT-UPC



- 1 The process value is read continuously.
- 2 It is compared with the setpoint to find the **deviation**.
- 3 The PID algorithm calculates the output.
- 4 A valve or heater is driven.

APPLICATIONS

Temperature and process value control, heating-cooling automation.

INDUSTRIES SERVED

Furnaces and heat treatment plants, food, plastics, chemicals, machinery manufacturing.

NT-UT / NT-LT / NT-TT

Signal Converters

MADE IN TÜRKIYE

ISO 9001

CE



Devices designed to convert and carry analogue and digital signal outputs to systems that have different input options. Easy mounting and isolation against external influences are important for correct application in this type of converter device.

TECHNICAL SPECIFICATIONS

Supply Voltage	8 – 36 VDC
Universal Analogue Input	Thermocouple B, E, J, K, L, N, R, S, T, U; PT100; current 0/4–20 mA; voltage 0–50 mV
Input Resolution	16 bit
Sampling Period	100 – 400 ms
Analogue Output	0/4–20 mA, 0/2–10 V, 20–4 mA
Load Resistance	Current $R_L \leq 600 \Omega$, voltage $R_L \geq 1 M\Omega$
Accuracy	PT100 $\pm 0.2\% MV \pm 0.3 ^\circ C$; T/C, mV $\pm 0.2\% MV \pm 1 ^\circ C$
Thermal Drift	$\pm 100 \text{ ppm}/^\circ C$
Galvanic Isolation	1500 V
Memory	100 years, 100,000 write cycles
Response Time	0.2 ... 120 s
Operating Temperature	-40...+85 $^\circ C$

MODELS

DIN-Rail Universal Signal Converters

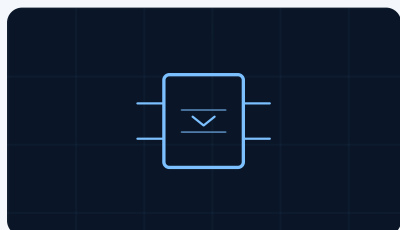
NT-UT 17 / 18. Converts all thermocouples and resistance thermo elements, 0/4–20 mA current and 0–50 mV voltage inputs into 0/4–20 mA and 0/2–10 V voltage outputs. Single and dual channel options; 1500 V 3-way galvanic isolation.

In-Head Signal Converters

NT-LT / NT-TT Series. Designed to obtain 4–20 / 20–4 mA outputs from type B, E, J, K, L, N, R, S, T, U thermocouples, PT100 resistance thermo elements and level sensors producing a resistance output. Suitable for mounting in a housing or socket.

OPERATING PRINCIPLE

NT-UT



- 1 The input signal is isolated.
- 2 It is **converted** into a different format.
- 3 Noise and earth loops are prevented.
- 4 The system is fed safely.

APPLICATIONS

Signal level and type conversion, long-distance signal transmission, galvanic isolation.

INDUSTRIES SERVED

All industrial automation applications.

07

Mechanical Control

Actuators, solenoid valves and valves

[NT-VT](#) Actuators

[NT-VLV](#) Valves

[NT-1901](#) Solenoid Valves

— CLICK A PRODUCT NAME TO JUMP TO ITS PAGE



NT-VT / NT-ATG / NT-KE100

Actuators

MADE IN TÜRKİYE

ISO 9001

CE



Drive elements that enable a system or mechanism to perform its opening and closing action. Different types are available according to the field of use and application. They generally command this control by hydraulic, pneumatic or electrical means.

TECHNICAL SPECIFICATIONS

Body and Piston	Aluminium
Operating Temperature	-20...+80 °C
Shaft Material	Alloy steel
Supply Pressure	5 - 8 bar (pneumatic)
Valve Connection	ISO 5211
Ingress Protection	IP67 (electric)
Torque Values	20 - 500 Nm

MODELS

Pneumatic Actuator (NT-VT)

Aluminium body and piston, alloy steel shaft, Namur solenoid valve interface, 5-8 bar supply pressure, ISO 5211 valve connection, 90° ±5° rotation angle.

Pneumatic Actuator (NT-ATG)

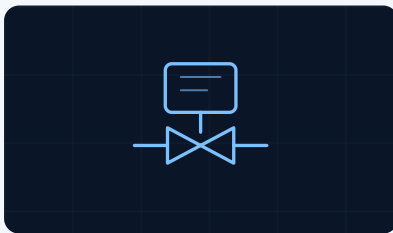
Aluminium body and piston, Namur switch box interface, ISO 5211 valve connection, 180° rotation angle.

Electric Actuator (NT-KE100)

Quarter-turn electric actuator; aluminium body (polyester powder coated), ISO 5211 connection, IP67 protection, 220 VAC supply, -20...+70 °C ambient, 20-500 Nm torque, 2 limit switches as standard, class F motor.

OPERATING PRINCIPLE

NT-VT



- 1 The control signal reaches the actuator.
- 2 A motor or piston **drives** the stem.
- 3 The valve position is changed.
- 4 Position feedback is sent back.

APPLICATIONS

Driving valves and butterfly valves, automatic line control.

INDUSTRIES SERVED

Treatment plants, chemicals and petrochemicals, food industry, power plants.

NT-1901 / NT-7901 / NT-PV250

Solenoid Valves

MADE IN TÜRKIYE

ISO 9001

CE



Electrically or pneumatically controlled mechanical circuit elements that open, close or redirect the path of a medium by opening and closing one or more orifices.

TECHNICAL SPECIFICATIONS

Body Material	Brass / stainless steel / aluminium
Position	NC - NO
Size	1/8" ... 4"
Diaphragm / Seal	NBR, EPDM, HNBR, Viton, PTFE, silicone, rubber
Coil	12, 24 VAC/DC ... 220 VAC

MODELS

Brass Body Solenoid Valve (NT-1901)

Brass body, NC-NO position, 1/8"...2" sizes (opt. hose connection), NBR/EPDM/HNBR/Viton/PTFE/Rubin/POM diaphragm, 12-24 VAC/DC ... 220 VAC coil. Pilot operated, direct acting and diaphragm operated modes.

Stainless Body Solenoid Valve (NT-7901)

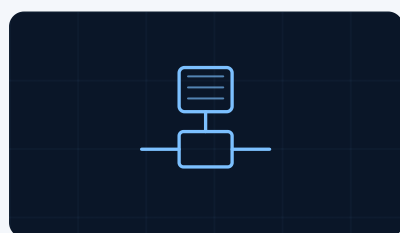
Stainless steel body, NC-NO position, 1/8"...1" sizes, Viton/NBR/PTFE diaphragm, 12-24 VAC/DC ... 220 VAC coil.

Pulse Valve (NT-PV250)

Aluminium body, NC position, 3/4" to 4" threaded, flanged or union connection, silicone/rubber diaphragm, 12 VAC/DC ... 220 VAC coil.

OPERATING PRINCIPLE

NT-1901



- 1 The coil is energised.
- 2 The magnetic field **pulls** the plunger.
- 3 The passage opens or closes.
- 4 A spring returns it when power is removed.

APPLICATIONS

On-off duty on liquid and gas lines, filter cleaning (pulse valve) and dosing control.

INDUSTRIES SERVED

Water and treatment, cement and dust collection plants, food industry, machinery manufacturing.

NT-VLV

Valves

MADE IN TÜRKIYE

ISO 9001

CE



Mechanical control products driven by a gearbox, hand lever or actuator; they can operate on-off or proportionally and serve to regulate, stop or redirect the flow of media of different specifications. Ball, butterfly, globe, knife gate, plug and other types are available, and different types can be selected according to properties present in the process such as pressure, temperature, medium type, density and viscosity.

TECHNICAL SPECIFICATIONS

Body Material	Ductile iron, stainless steel, brass, PVC, cast aluminium
Connection	Wafer, threaded, flanged
Pressure Rating	PN10 ... PN63
Max. Temperature	60 °C ... 180 °C
Actuator Compatibility	Pneumatic and electric

MODELS

Wafer Butterfly Valve

Ductile iron body, wafer connection, optional pressure rating, compatible with pneumatic and electric actuators.

Ball Valve

Stainless steel or brass body, threaded/flanged/wafer connection, PN10 (opt. PN63), max. 180 °C, compatible with pneumatic and electric actuators.

3-Way Valve

Stainless steel or brass body, threaded connection, L or T port, PN63, max. 180 °C.

PVC Ball Valve

PVC body, full bore, PN10, max. 60 °C, compatible with pneumatic and electric actuators.

Pinch Valve

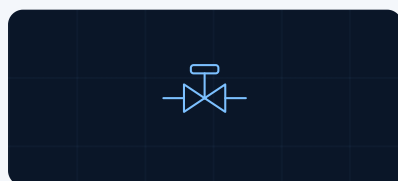
Cast aluminium body, threaded and flanged connection, compliant with the Namur standard.

Timer Controlled Valve

Stainless steel, brass or PVC body, PN10 / 90 °C, 2-way or 3-way, on-off or proportional, time controlled models.

OPERATING PRINCIPLE

NT-VLV



- 1 The medium enters the valve body.
- 2 The disc or ball position **throttles the flow**.
- 3 The position is set by the actuator.
- 4 Flow rate or pressure is controlled.

APPLICATIONS

Line on-off duty, flow diversion and proportional flow control.

INDUSTRIES SERVED

Water and wastewater, chemicals and petrochemicals, food industry, power plants, mining.

08

Handheld Instruments and Data Logging

Field measurement, analysis and data recording

[NT-IRT](#) Infrared Thermometer

[NT-SLM](#) Sound Level (Decibel) Meter

[NT-AQM](#) pH, EC, TDS and Chlorine Meters

[NT-DLG](#) Data Recorders and Dataloggers

[NT-ANM](#) Anemometer

[NT-GLD](#) Gas Leak Detector

[NT-TAO](#) GPS Field Area Meter

— CLICK A PRODUCT NAME TO JUMP TO ITS PAGE



NT-IRT

Infrared Thermometer

MADE IN TÜRKIYE

ISO 9001

CE



A thermometer that senses without contact (infrared). Models are available that can take readings in the $-60...+2000$ °C temperature range; they are handheld, easy to use and ergonomic products.

TECHNICAL SPECIFICATIONS

Measuring Range	$-60 \dots +2000$ °C (depending on model)
Measuring Type	Non-contact infrared
Use	Handheld, ergonomic

APPLICATIONS

Machine surface temperature, electrical panel inspection, food safety checks.

INDUSTRIES

Maintenance and repair, food, energy, heavy industry.

NT-ANM

Anemometer

MADE IN TÜRKIYE

ISO 9001

CE



Easy-to-use devices that measure wind/air velocity in open areas or in tunnels where an air flow develops. Many models of this type of device also measure temperature and humidity values.

TECHNICAL SPECIFICATIONS

Measurement	Air/wind velocity, temperature, humidity
Use	Handheld

APPLICATIONS

Ventilation duct measurement, tunnel and mine ventilation, HVAC commissioning.

INDUSTRIES

HVAC, mining, construction, energy.

NT-SLM

Sound Level (Decibel) Meter

MADE IN TÜRKIYE

ISO 9001

CE



Compact handheld devices developed for measuring and determining sound intensity. Different models are available that combine other measuring parameters such as temperature, humidity and light.

TECHNICAL SPECIFICATIONS

Measurement	Sound intensity (dB), opt. temperature-humidity-light
Use	Compact handheld

APPLICATIONS

Occupational health and safety measurements, environmental noise monitoring.

INDUSTRIES

Occupational safety, municipalities and public bodies, industrial facilities.

NT-GLD

Gas Leak Detector

MADE IN TÜRKIYE

ISO 9001

CE



Devices capable of detecting leaks of gases such as carbon monoxide, ammonia, methane and propane, whose escape could endanger human health. They can raise an audible and visual alarm should the level rise above the specified threshold.

TECHNICAL SPECIFICATIONS

Detected Gases	CO, ammonia, methane, propane and similar
Alarm	Audible and visual
Use	Handheld

APPLICATIONS

Gas line leak inspection, confined space safety, maintenance checks.

INDUSTRIES

Natural gas, petrochemicals, refrigeration plants, facility management.

NT-AQM

pH, EC, TDS and Chlorine Meters

MADE IN TÜRKIYE

ISO 9001

CE



Devices developed for analytical measurements such as pH, conductivity, salinity, dissolved oxygen and chlorine. Handheld, laboratory and online (continuous) measurement models are available. Some models offer analogue or digital signal output options for control and monitoring purposes.

TECHNICAL SPECIFICATIONS

Measuring Parameters	pH, EC, TDS, salinity, dissolved oxygen, chlorine
Model Types	Handheld, laboratory, online
Output	Opt. analogue or digital signal

APPLICATIONS

Water treatment process control, swimming pool and drinking water monitoring, laboratory analysis.

INDUSTRIES

Water and wastewater treatment, food industry, chemicals, municipalities and public bodies.

NT-TA0

GPS Field Area Meter

MADE IN TÜRKIYE

ISO 9001

CE



A practical, high-accuracy product that measures area in square metres using GPS signals. With its menu and user-friendly interface it allows a measurement to be taken with a single button.

TECHNICAL SPECIFICATIONS

Measurement	GPS-based area (m ² , decare)
Interface	Menu driven, single-button measurement

APPLICATIONS

Field and land area calculation, agricultural planning.

INDUSTRIES

Agriculture, land management, cadastral applications.

NT-DLG

Data Recorders and Dataloggers

MADE IN TÜRKIYE

ISO 9001

CE



Devices that store in memory the data sensed by all thermocouple types, resistance thermo elements and sensor groups producing an output across all universal analogue input types; display models allow the data to be viewed on screen graphically or in table form. Many models offer communication outputs and monitoring software so that data can be examined on a computer.

TECHNICAL SPECIFICATIONS

Number of Channels	2, 4, 6 ... 40
Screen	320×200 LCD (varies with the number of channels)
Input	Isolated universal inputs
Communication	RS232
Memory	2 GB USB disk, 1 GB SD card
Response Time and Accuracy	1 s / ±0.2
Output	4–20 mA, 24 VDC sensor supply
Logging Interval	Adjustable between 1 s and 30 min
Power Supply	220 VAC, opt. 24 VDC

MODELS

Data Recorders

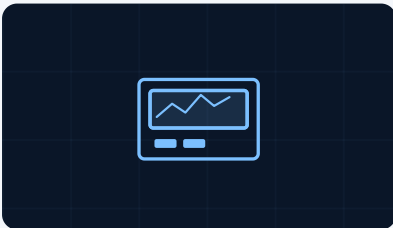
2, 4, 6 ... 40 channels, 320×200 LCD screen, isolated universal inputs, RS232 communication, 2 GB USB disk and 1 GB SD card memory, 4–20 mA output and 24 VDC sensor supply. The logging interval is adjustable between 1 s and 30 min.

Datalogger

Designed to record the instantaneous temperature data of products such as pharmaceuticals and food; temperature variations are typically monitored during shipment. –35...+70 °C, ±0.5 °C accuracy, IP67, EN 12830 compliant, internationally HACCP certified, 16,000 record capacity, 90 days operating time.

OPERATING PRINCIPLE

NT-DLG



- 1 The device reads sensor data periodically.
- 2 Readings are **logged** with a time stamp.
- 3 Data is transferred to memory or the cloud.
- 4 It is reviewed as reports and charts.

APPLICATIONS

Process data logging, cold chain monitoring, quality documentation.

INDUSTRIES SERVED

Food and pharmaceutical industry, logistics, heat treatment plants, laboratories.

Automation and Design

Net Flow is the brand that carries VFA Elektronik's 12 years of manufacturing experience into export markets. Alongside the supply of measuring instruments, it designs and commissions complete automation solutions according to the needs of your facility. From field instrumentation to panel manufacturing, and from PLC and SCADA software to commissioning and training, we manage the entire process from a single source.

Throughout the project we work with all our strength and capability towards accurate measurement, reliable data and sustainable control. Our engineering team is at your service for the modernisation of your existing facility or the instrumentation design of your new investment.

Field Instrumentation

Project-based selection and supply of flow, level, pressure, temperature and analytical measurements.

Panel Manufacturing

Design, manufacturing and site installation of command and control panels.

PLC and SCADA

Process automation software, data monitoring and reporting systems.

Commissioning

Site installation, calibration, testing and user training.

PROJECT ENQUIRY

Share your measuring points, medium data and line sizes; our engineering team will support you with the appropriate product selection, sizing and quotation. For custom manufacturing and special process requirements please contact us directly.



NETFLOW

Accurate measurement, reliable data.

Contact us for product selection, application support and quotations. Local manufacturing, fast delivery and direct engineering support.

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