



Just measure it

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VFA ELEKTRONIK

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WHO ARE WE?

VFA Elektronik was founded in Konya in 2012 with the aim of supplying measurement instruments and providing automation services for the Turkish industry. With the recent development of our country's industry, quality and its continuity have become crucial for manufacturers. Therefore, manufacturers are demanding industrial measurement, data monitoring, and control of monitored data for energy efficiency and quality standards. VFA Elektronik responds to these demands by producing accurate and innovative solutions with its young and dynamic team.

Measurement elements such as flow, level, pressure, temperature, humidity, and analysis can be measured with sensor supplies and applications that VFA Elektronik provides. For data monitoring, VFA Elektronik supplies and applies process indicators, chart and paperless recorders with control units, as well as PID and PLC applications. In addition to all of these, VFA Elektronik supplies and applies actuators, valves, wafers, and mechanical control in the field.

VFA Elektronik has created a happy customer profile by producing solutions with a suitable cost, high quality, and fast service approach in industrial measurement sensors. In this direction, it has increased its product variety day by day with its domestic and international sales representatives.

In 2014, VFA Elektronik also adopted the principle of original design and reliable measurement for its float level sensors and capacitive level sensors, and aims to reduce our country's dependency in this area by making all measurement instruments domestically in the long term.

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ELECTROMAGNETIC FLOWMETER

Electromagnetic flow meters are devices that measure the flow of conductive fluids (minimum $5\mu\text{S}/\text{cm}$) by correlating the magnetic field generated by the coils and the resulting voltage with the fluid velocity. They are capable of precise measurement and can be used with all conductive fluids that are non-corrosive, since they do not have any moving parts in their internal structure.

APPLICATION AREAS

Potable water, agricultural irrigation, fruit juices, chemicals, and conductive liquids containing large particles.

USED SECTORS / INDUSTRIES

They are used in areas such as Wastewater Treatment Plants, Food Industry, Textile Industry, Heavy Industry, Machinery Industry, Chemical Industry, Petrochemicals, Paper Industry, Pharmaceutical Industry, and Agricultural Irrigation.

TECHNICAL SPECIFICATIONS

Body Material	Carbon Steel / Stainless Steel 304/316 (optional)
Connection Size	DN10-DN3000
Measurement Range Velocity	0.2 - 2 liters/min ... 12,000 - 38,000 m ³ /hour 0.5 - 15 m/s
Coil Material	99% copper.
Minimum Conductivity	$5\mu\text{S}/\text{cm}$
Nominal Pressure	0.6MPa / 1.0Mpa / 1.6Mpa / 2.5Mpa / 4.0Mpa
Inner lining material	PTFE / Neoprene / Hard Rubber / F46 / PFA / Polyurethane
Electrode Material	SS316L / Hastelloy B / Hastelloy C / Titanium / Tantalum / Platinum
Ambient temperature	Rubber -25 to +60 °C / Teflon -20 to 150°C
Accuracy	% 0.5 / $\pm 0.3\%$ and $\pm 0.2\% \pm$ (ops.)
Supply	AC85-250V / DC20-36V
Output	4-20mA, Pulse, RS485 Modbus (ops) / HART, Profibus (ops)
Alarm	Empty Pipe, Excitation, Lower and Upper Limits
Screen	Three-line LCD Display
Ex-proof	Exmd II T4(ops)
Protection Class	IP65 / IP67 IP68 (ops.)
Documents	CE / ISO9001-2008 / Calibration Certificate / Ex-Proof Certificate



NOTES

- The fluid being tested must have electrical conductivity.
- The flow must pass through the pipe completely filled.
- The components in the fluid must be mixed homogeneously.
- If the liquid induces magnetic induction, the magnetic field of the device will change, and the device will need to be recalibrated.
- For laminar flow, it should be installed according to the mechanical connection guide.



FOOD GRADE

This model is designed for preventing bacterial growth and for use in all food applications, and it is manufactured as a complete stainless steel body with a hygienic or tri-clamp connection type.



MINIATURE TYPE

It is designed for low flow applications and can be applied to connection diameters from DN3 to D15 within the measurement range of 0.2-2 L/min to 5-100 L/min. It is widely used in filling applications.



IMMERSION TYPE

This model is designed for different application diameters between DN100 and DN3000 and is mounted using a flange on top of the pipe.



BATTERY TYPE

It is designed for applications where energy supply is not available, providing long-term use with a 3.6 V battery.

TURBINE FLOWMETER

It is created by placing a turbine that can rotate freely inside the body to detect the speed of the fluid. The rotation rate of the turbine is directly proportional to the speed of the fluid. By calculating the product of speed and section and ensuring laminar flow, flow measurement can be made with an accuracy rate of 0.2%. It is available in stainless steel and plastic body versions, with flanged, threaded, tri-clamp, immersion, and compression models.

APPLICATION AREAS

Non-particulate liquids, water lines, milk lines, food lines, non-conductive liquids with low conductivity value, chemicals, filling units, etc.

USED SECTORS / INDUSTRIES

Machinery industry, chemical industry, testing units, pharmaceutical industry, paper industry, heavy industry, etc.

TECHNICAL SPECIFICATIONS

Body Material	AISI 304 - 316 Stainless Steel - PTFE (Teflon)
Connection Size	DN4 - DN200
Fluid	Particle-free Liquids
Flow Range	0,04 - 800 m³/h
Accuracy	± %0,2 - ± %0,5 - ± %1
Temperature Range	-20°C...+80°C ops. -20°C 120°C ops. 200°C
Repeatability	%0,1 O.D
Turbine Material	CD4MCU Stainless Steel
Turbine Rotation Rate	Standart 10:1, Ops. 20:1
Maximum Pressure (Pmax)	Operating pressure of 16-25-40-63 Bar up to 400 Bar
Output	Square Wave (Pulse), operating at 4-20mA
Feed	12 - 24VDC
Protection Class	IP65 or Ex-proof
Indicator	Compact or discrete type 2-line LCD
Documents	CE / ISO9001-2008 / Calibration Certificate / Ex-Proof Certificate

NOTES

- Not recommended for use in particle-laden fluids where the turbine (rotor) can become clogged.
- The flow must pass through the pipe completely filled.
- In abrasive fluids, liquid details must be specified in product selection.
- For laminar flow, it must be installed according to the mechanical connection guide.



FOOD GRADE

These models are specifically designed for food applications and feature a Tri-Clamp / Clamp-type connection with a connection type that prevents bacterial growth for mechanical assembly.



PLASTIC MODEL

It has a measurement range between 0.15 Lt/Min - 200 Lt/Min for pipe diameters between 1/8" and 2" with threaded connections. Models made entirely of Teflon are available for acidic applications.



IMMERSION TYPE

Designed for different application diameters ranging from DN100 to DN3000, this model is installed using a flange on top of the pipe.



HIGH TEMPERATURE

Designed with an extra cooler for high temperature resistance up to 200°C.

FLOW METER WITH FLOAT

A flow meter that consists of a weighted float made of conical glass or hard plastic that moves freely inside a tube. As the fluid passes through the pipe, it causes the float to move upward, allowing for the instantaneous flow rate to be determined.

APPLICATION AREAS

Gas & liquid

USED SECTORS / INDUSTRIES

Wastewater treatment plants, machine manufacturing, recycling facilities, heat treatment facilities, testing units, chemical industry.



VF-LZS SERIES

It is used to measure the instant flow of liquids and corrosive fluids. It has a PVC body and a float that moves freely without friction as the flow passes from bottom to top when connected horizontally or vertically. The change in position of the float, which is pushed by the fluid, determines the flow rate, depending on the weight of the float and the density and viscosity of the fluid.

TECHNICAL SPECIFICATIONS

Body Material	Trogamid (Polyamide), Polysulfone
Maximum Temperature (Tmax)	70 °C / 90 °C
Connection Size	Threaded/Adhesive 1/2" - 2 1/2" Flanged DN65-DN150
O-Ring	Viton
Guide Bar	AISI 304 Stainless Steel
Fluid	Water and water-based products
Measurement Range	5 ... 200 m³/h
Accuracy	%2,5 T.S.
Length	200 mm ... 560 mm
Maximum Pressure (Pmax)	10 bar



VF-LZM SERIES

This device is used to measure instantaneous flow rates of liquid and gas fluids. It has a polypropylene body and a freely moving float inside a vertical or horizontal tube, which moves according to the fluid's flow and position change. This change is proportional to the flow rate and depends on the float's weight, as well as the fluid's density and viscosity. An adjustment valve allows for precise flow rate adjustment.

TECHNICAL SPECIFICATIONS

Body Material	Polypropylene, Polycarbonate
Maximum Temperature (Tmax)	120 °C
Connection Size	Clip or 1/8" ... 1"
O-Ring	Viton
Fluid	Liquid and gas
Measurement Range	5 ... 1000 L/h
Accuracy	%2,5 T.S.
Length	200 mm...430 mm
Measurement Range - Liquid	6 mL ... 300 L/min
Measurement Range - Gas	0,05 L/min ... 250 Nm³/h
Maximum Pressure (Pmax)	10 bar / 16 bar



VF-VA SERIES

Flow meters of this type are used to detect the instantaneous flow of liquid or gas fluids. They have a glass or metal body, and with vertical installation, the freely moving float moves without friction as the flow passes from bottom to top. This change in position of the float is dependent on the weight of the float and the density and viscosity of the fluid, which indicates the flow rate. They can be used at high temperatures.

TECHNICAL SPECIFICATIONS

Body Material	Aluminum-SS316 Stainless Steel (Epoxy Coated)
Maximum Temperature (Tmax)	150 °C
Connection Size	1/2" ... 1" Threaded, Flanged, and Tri-Clamp
O-Ring	Viton
Fluid	Liquid and gas
Precision	%1 T.S.
Length	408 mm - 414 mm
Measurement Range - Liquid	4 ... 15000 L/h
Measurement Range - Gas	0,12 m³/h ... 300 m³/h
Maximum Pressure (Pmax)	10 bar



VF-DK800 SERIES

It is used to detect the instantaneous flow of liquid or gas fluids. It is a model with a glass tube and metal body that can be installed vertically, and the float moves freely without friction as the flow passes from bottom to top. The position of the float is changed by the fluid pushing it, which allows for instant flow rate measurement on the glass scale. It enables precise flow adjustment thanks to its compact structure and adjustment valve.

TECHNICAL SPECIFICATIONS

Body Material	SS316 Stainless Steel.
Maximum Temperature (Tmax)	100 °C
Connection Size	1/4" NPT
O-Ring	Viton
Fluid	Liquid and Gas
Measurement Range - Liquid	0,25 ... 160 L/h
Measurement Range - Gas	0,3 ... 4300 L/h
Precision	%2,5 T.S.
Length	147 mm
Measurement Tube	Glass
Maximum Pressure (Pmax)	10 - 16 bar

VORTEX FLOWMETER

This is a flow measurement based on the principle of the eddy current created by an obstacle encountered by the fluid flow, which causes it to rotate and create a vortex. In short, the flow rate is determined by the pressure difference created by the vortex generated by the obstacle in the body.

USAGE AREAS

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

USED SECTORS

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

TECHNICAL SPECIFICATIONS

Fluid	Liquid, Gas, Vapor
Measurement Range	DN15 - DN300 (Flanged and Compression Fittings) DN100 - DN2000 (Submerged Type)
Temperature Range	-20 °C ... 250 °C Ops. 350 °C
Maximum Pressure(Pmax)	16, 25, 40 Bar
Accuracy	T.S. $\pm 0.5\%$, $\pm 1.0\%$, $\pm 1.5\%$ Submerged Type: $\pm 2.5\%$
Reynolds Number	Re > 4000
Signal and Communication Output	4 - 20 mA (2 Wire), Pulse (3 Wire), RS485 Modbus
Ex-Proof Class	ExdIIB T6 Gb
Ambient Temperature	-25 °C ... 55 °C
Power Supply	24VDC, 3,6 V Lithium Battery
Body Material	SS304, Ops. SS316

NOTES

- Suitable for challenging process conditions.
- Temperature and pressure data can be monitored during flow measurement.
- Can be used in areas where pipe distances are limited.
- Real values can be obtained with temperature and pressure compensation.
- Care should be taken for proper measurement with respect to mechanical connection conditions.



ULTRASONIC FLOW METER

Ultrasonic flowmeters are devices that detect the velocity of liquids inside closed pipes by using sensors that generate sound waves on the surface of the pipe without causing any mechanical damage. By calculating the proportional flow rate in the reading terminals, a flow rate accuracy of up to 1% can be achieved.

USAGE AREAS

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

USED SECTORS

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

TECHNICAL SPECIFICATIONS

Model	VF-TUF-2000H (Portable Type)	VF-TUF-2000S/M (Fixed/Rail Type)
Connection size	DN15 ... DN6000	
Measurement range	0.01 ... 32 m/sec	
Accuracy	%1 O.D	
Temperature range	-40°C ... 110 °C Ops. 160 °C	
Indicator	Backlit 4x16 character LCD	2x20 character LCD with backlight
Cable length	5 meters, Ops. 10 meters	
Communication	RS232	RS485, RS232
Signal Output	-	4-20 mA, Relay
Recording	2000 Data Memory	2000 Data Memory
Power Supply	3x1.5 A Rechargeable battery	220 VAC, 24 VDC
Protection Class	IP65	IP68
Accessories	Bag, Clamps, Meter	Clamps, Mete

NOTES

- Provides measurement without damaging the pipe
- Offers a wide measurement range with a 3-dimensional sensor
- The viscosity of the fluid must be constant and should be used in fully filled homogeneous pipes.
- Measurement options are available for materials such as steel, stainless steel, cast iron, PVC, copper, aluminum, etc.
- Measurement options are available for fluids such as water, seawater, gas oil, gasoline, fuel oil, crude oil, propane, butane, sesame oil, peanut oil, diesel-gasoline, etc.
- Comes with CE, ISO9001:2008, Ex-Proof and Calibration certificates.



OPEN CHANNEL FLOWMETER

These flow meters are installed on weirs or bends in an open channel to measure the flow rate of a fluid with a defined shape, based on the fluid's massless (ultrasonic) velocity and depth. They provide high precision with a resolution of 1mm. They have an electric heating feature for extreme cold applications and are not affected by parasites due to their insulation. Instantaneous and total amounts can be monitored.

USAGE AREAS

It is widely used in water treatment, irrigation, industrial wastewater and other industrial areas.

USED SECTORS

Weir structures are used in existing rivers and streams, municipalities and public institutions, water treatment and wastewater facilities, hotels and tourism establishments, industrial and agricultural irrigation.

TECHNICAL SPECIFICATIONS

MAIN COMPUTER

Measurement range	0 - 99999 l/sec or m3/h
Level resolution	1mm
Display feature	Improved 14-digit, two-line backlit LCD display
Flow measurement unit	m3/hour - l/second
Output	4-20mA output and RS485 serial communication (MOD-BUS-RTU)
Output alarms	Up to 6 programmable relays and pulse output for cumulative flow rate.
Temperature resistance	-40 °C ~ + 70 °C
Protection class	IP67
Power supply	DC24V(±5%) 0.2A & AC220V(±20%) 0.1A
Weirs used	Various open weirs and channels, Parshall channels (ISO), Right-angle triangular weirs, Rectangular weirs

PROB

Measurement range	0.00 ~ 4.00m (Level) Ask for other options
Dead Zone	0.20m
Beam Angle	8° (3db)
Temperature Range	-40 °C ~ + 75 °C
Material	ABS / PVC / PTFE
Protection Class	IP68
Cable Length	Standard 10m (Options up to 1000m)

NOTES

- The steps specified in the mounting guide according to the funnel type should be applied.
- Attention should be paid to the selection of the probe according to the fluid used



METAL TUBE FLOW METER

This is a variable area flowmeter model used for liquid, gas, and steam measurement, and it takes measurements based on the magnetic float movement. Metal tube flowmeters that can withstand hydrodynamic effects are mostly used in vertical lines but can also be used horizontally with special mechanical design. It is easy to read thanks to its precise pointer indicator and wide scale ratio. As an optional feature, it can provide an LCD monitoring panel, contact, and 4-20mA analog output.

USAGE AREAS

High-temperature and high-pressure applications, chemical fluids, water applications, explosive gases and liquids, abrasive fluids, and analog monitoring applications that do not require electrical connections.

USED SECTORS

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

TECHNICAL SPECIFICATIONS

Measurement range	Liquids (2.5-100000 L/h) & Gases (0.07-3000m3/h)
Temperature resistance	-25°C ~ + 100°C & Operating High Temp. 300°C
Accuracy	±% 2.5 & Operating High Accuracy ±% 1.5
Output	Operating 4-20mA
Supply	24VDC, 3.6V Lithium Battery Power
Maximum operating pressure	16 Bar
Pipe connection	Flange, Thread, Quick Connection
Protection class	IP65, IP67
Explosion resistance (Exnt)	ExiallCT1 - T6

NOTES

- Attention should be paid to high temperature and pressure information.
- Scale range can be preferred.
- Hygienic clamp connection can be made for food applications.
- Body and protection class can be selected according to corrosive and explosive fluids.



OVAL GEAR FLOWMETER

Oval gear flowmeters are devices that measure flow by the rotation of two synchronized oval gears or rotors, which rotate based on the flow rate. The rotation speed determines the flow rate and calculates the instantaneous and total flow rate by section calculation. They provide easy installation and high precision for fluids with high temperature and viscosity. They can also be used for very low flow rates and produce high-resolution pulses.

USAGE AREAS

Oval gear flowmeters can be used for industrial oils, hydraulic oils, low or high viscosity chemicals, high temperature and pressure liquids, liquid food applications, and refined oils.

USED SECTORS

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

TECHNICAL SPECIFICATIONS

Link	Between DN6 - DN100 mm
Accuracy	±0.5% ops.
Max. Pressure Resistance	100 Bar
Measurement Range	0.5ml/min - 240lt/min
Output	Pulse, 4-20 mA
Power Supply	5...24VDC power supply

NOTES

- Product selection should be based on fluid viscosity.
- High temperature and pressure information should be taken into consideration.
- Fluids containing particles should be filtered.
- Body options are available for abrasive fluids.



HELICAL GEAR FLOW METER

Helical gear (spiral) flow meters are designed to detect the flow rate of viscous fluids. This is achieved by placing two cycloidal helical gears inside a cylindrical housing, which creates a closed area within the gears' internal walls. The measurement method is based on the movement of the fluid being directly linked to the rotation of the gears. This design ensures minimum leakage, uninterrupted flow, and high accuracy with minimum pressure drop.

USAGE AREAS

Fluids of varying viscosity, paraffin and adhesive fluids, food applications, chemical fluids, grease, etc. oils.

USED SECTORS

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

TECHNICAL SPECIFICATIONS

Flow Range	VF-TUF-2000H (Portable Type)
Accuracy	DN15 ... DN6000
Repeatability	0.01 ... 32 m/s
Max. Pressure Resistance	±1% O.D
Temperature Resistance	-40°C ... 110 °C Ops. 160°C
Viscosity	Illuminated 4x16 character LCD display
Output	5 meters, optional 10 meters

NOTES

- Provides a long service life with its sturdy construction.
- Body options are available for abrasive fluids.
- Ideal for low flow rates and fluids with varying viscosity.



THERMAL MASS FLOW METER

Thermal mass flow meters are designed based on thermal dispersion (temperature spread) for fluids in the gas state. They measure flow rate using the constant differential temperature method. Energy and heat are generated on the measurement probe. The energy ratio increases to prevent cooling effects during gas flow, and this ratio is directly proportional to the mass flow rate. Instantaneous and total flow rates are determined from this measurement.



USAGE AREAS

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



USED SECTORS

Energy and heat plants, natural gas power plants, chemical industry, machinery industry



TECHNICAL SPECIFICATIONS

Connection Dimensions	DN80-DN4000 (Insertion), DN10-DN2000 (Pipe)
Velocity	0.5 - 100 Nm/s (20°C, 101.33KPa)
Accuracy	±2.5% (Insertion) & ±1% (Pipe)
Operating Temperature	-40°C ~ +220°C (Sensor), -20°C ~ +45°C (Transmitter)
Max Pressure	Insertion ≤2.5 MPa, Pipe ≤4.0 MPa
Output	4-20mA (optoelectronic isolation, maximum load 500Ω)
Alarm Output	1-2 Line Relay, Normally Open state, 10A/220V/AC or 5A/30V/DC
Communication	RS485 (optoelectronic isolation), HART
Protection Class	IP65



NOTES

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



CORIOLIS MASS FLOWMETER

Meters are equipped with sensors at the inlet and outlet of a specially designed flow tube. When there is no flow, the signals from the sensors are in phase. However, when the flow starts to pass through the tube, the resulting vibration creates a phase difference between the signals. This phase difference is directly proportional to the mass flow passing through the tubes. The flow is also compensated for using a temperature sensor placed on the tubes. Additionally, these products can also detect the density of the fluid.



USAGE AREAS

All liquid and gas applications.



USED SECTORS

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



TECHNICAL SPECIFICATIONS

Precision	±0.2% Ops. ±0,1%	
Pipe Diameter	±0.2% Ops. ±0,1%	
Density Measurement Range	0.3-3000 g/cm³	Y. Accuracy: ±0.002 g/cm³
Temperature Resistance	-50...+200C, Ops (-200...+300)	S. Accuracy: ±1 °C
Output	4-20 mA-Ops Flow rate, density, temperature signal	
Communication	Rs485, Modbus protocol	
Protection and Pressure Resistance	Ip67-4.0 Mpa	



NOTES

- Enables simultaneous measurement of mass flow, density, and temperature.
- Provides ease of horizontal and vertical installation.
- Does not require straight pipe lengths for inlet and outlet.
- Provides measurement independent of fluid's physical properties.



COMPACT THERMAL GAS FLOWMETER

It is designed based on the thermal dispersion principle and adopts the constant differential temperature method to measure gas flow. It has advantages such as small size, easy installation, high reliability, and high accuracy.



USAGE AREAS

Primarily used in the petroleum industry, chemical industry, medical industry, and thermal power plants.

Connection Dimensions	DN8-DN300
Accuracy	±1.5% of reading + 0.3% full scale accuracy
Measurable Gases	Suitable for measuring process gases such as N ₂ , Ar, O ₂ , CO ₂ , etc.
Operating Temperature	-30°C...+230°C / relative humidity <90
Maximum Pressure	5.0Mpa
Output	4...20mA and Pulse output, Modbus, M-Bus communication
Alarm Output and Protection Class	1-2 line Relay, Normally Open state, 10A/220V/AC or 5A/30V/DC IP65 protection class



NOTES

- Has an easy calibration feature for all gases.
- Has the capability of remote control, setting, and calibration via phone.



FLOW SWITCHES

Flow switch is used to detect the flow in pipes. It detects the movement of liquids inside the pipe and provides information about whether the fluid is flowing or not.



THERMAL FLOW SWITCHES

These are flow switches that track liquid flow and operate based on the calorimetric principle. When the flow rate exceeds the limit value set by the user, the current position of the switch is reversed, and information can be obtained from the LEDs located above the flow limit range. The user can set the flow limit value on the device.

USAGE AREAS

Flow switches designed for difficult processes have the biggest advantage over other flow switch types as they are suitable for use in explosive environments.

USED SECTORS

Patlama prosesleri ve zorlu prosesler

TECHNICAL SPECIFICATIONS

Power Supply	24 V \pm 10 DC
Connection Type	M16 \times 1.5 Connector & Thread (G1/2"; G1/4"; M14 \times 1.5; NPT1/4")
Display	10 \times Three-colour LED (Flow rate) & 1 \times LED (Temperature)
Output	Relay, PNP, NPN, 4...20 mA
Flow Rate Range	4...400 cm/s Acc. \pm 2... \pm 8 cm/s
Pressure Rating	6.3 MPa
Protection Class	IP67



PEDAL OPERATED FLOW SWITCHES

Flow switches and sensors can be connected even vertically. Their use with T-body or directly tongue models is practical and easy, and their direct relay output provides easy connection to many driving elements.

USAGE AREAS

They are reliable choices for flow control and heating/cooling systems, and are used by many machine manufacturers.

USED SECTORS

Devices such as water heaters, boilers, and heaters, cooling water lines, energy plants, and mines use these instruments.

TECHNICAL SPECIFICATIONS

Connection Line Sizes	DN8-DN200
Temperature Rating	+200°C
Pressure Rating	25 bar
Material	304SS-PP
Signal Output	Reed Contact, 26 VA / 20 W
Protection Class	IP65

FLOW INDICATORS

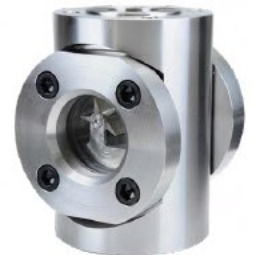
A flow indicator is a component used to monitor flow in closed pipe circuits from different directions. Flow indicators are used to monitor steam leaks by connecting them before and after steam traps, and to visually monitor fluids in industries such as food and pharmaceuticals. The glass used in flow indicators is special and is known as tempered soda-lime glass.

USAGE AREAS

Cold water, hot water, steam, compressed air, LPG, LNG, asphalt, fuel oil, ceramic slurry, etc.

TECHNICAL SPECIFICATIONS

Connection Line Sizes	1/4"-2"
Temperature Rating	-30°C / +180°C
Operating Pressure	16 bar
Material	AISI 304 Stainless Steel, Ops.316 Stainless Steel
Viewing Material	Heat-Resistant Glass



ULTRASONIC LEVEL TRANSMITTERS

Ultrasonic level sensors are instruments designed for non-contact distance, level, and volume measurement in solids and liquids. The ultrasonic sensor consists of three components: the sensor itself, the signal converter, and the control unit. The sensor is easily installed and sends sound waves into the tank, which are reflected back and detected, thereby determining the level. The filtering feature prevents incorrect measurements.

USAGE AREAS

They are used in water treatment and distribution facilities, chemical and petrochemical plants, food processing plants, and open and closed tanks.

USED SECTORS

Sand, cement, wastewater, clean water, milk and dairy products, soft drinks, oil, gasoline, diesel, pharmaceuticals, dolomite, calcite, perlite plaster, lime, fine sand, stone, ceramics, pulverized coal dust, flour and feed, plastic granules.

TECHNICAL SPECIFICATIONS

Measurement Range	0-1...0-20 meters
Accuracy	% 0,5 - % 1,0
Resolution	3mm or 0.1%
Temperature Resistance	Transmitter -20°C - +60°C, Sensor -20°C - +80°C
Protection Class	Transmitter IP65, Sensor IP68
Output	4-20mA
Power Supply	24Vdc

NOTES

- The installation guide should be followed according to the weir type.
- Attention should be paid to the probe selection based on the fluid used.



RADAR LEVEL TRANSMITTERS

Radar level sensors utilize pulse management to send increasing frequency scans over time. The signals are reflected back from the measurement surface and collected by the antenna, allowing for level detection in liquids and solids. With its high technology and different application methods, such as non-contact and guided wave, radar level sensors provide measurement ease in challenging processes. They interpret the measurement value in various forms, such as distance, level, volume, and mass, and present it for use.

USAGE AREAS

Sand, cement-clinker, waste water, clean water, dusty solid particles, high temperature and viscous liquids, food and feed, plastic granules.

USED SECTORS

The ceramic industry, cement factories, wastewater treatment plants, food industry, petrochemical industry, plastic processing and raw material plants, sand and stone quarries, lime and gypsum facilities.

TECHNICAL SPECIFICATIONS

Measurement Range	0-10m ...0-30m ... 0-50m ... 0-70m
Accuracy	±2mm
Power Supply	24VDC - 220VAC
Temperature Resistance	-60 ...+ 60 °C / -60 ... + 150 °C / -60 ... 250 °C
Protection Class	Transmitter IP65, Sensor IP68
Signal and Communication Output	4-20mA , HART,RS-485 Modbus, Profibus Pa ,Foundation Fieldbus
Frequency Band	26GHz - 70 GHz
Document	Ex d II C T6 , Exia II C T4



HYDROSTATIC LEVEL TRANSMITTERS

The hydrostatic level transmitter is specifically designed as a submersible type. As the liquid level rises, the pressure it creates at the bottom increases linearly. Based on this principle, this product, which is immersed in the liquid, precisely measures the level depending on the increase in the liquid level.



USAGE AREAS

Irrigation systems, rivers, tanks



USED SECTORS

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



TECHNICAL SPECIFICATIONS

Measurement Range	1-100 meters
Accuracy	0,5%
Maximum Pressure	200%FS
Electrical Connection	Cable length according to the level value
Supply Voltage	+12...30 VDC
Protection Class	Ip68
Body	1.4404(AISI 316L) Ops. 1.4462 (dubleks) -Titanium
Operating Temperature	-25°C...+85°C
Output	4-20mA, 0-10 VDC or 0.5-4.5 VDC



NOTES

- Cable length should be specified.
- As a special cable with air channels is used for the measurement, it should be stored properly.



CAPACITIVE LEVEL TRANSMITTERS

The capacitive level transmitter offers high accuracy proportional measurement in the management of solid and liquid materials levels, despite dust, foam, dirt, or similar particles. The capacitive measurement principle is based on detecting the changing capacitance value depending on the mass between the electrode and the tank surface. After installation, the sensor electrode is immersed in the material up to the desired point.



USAGE AREAS

Construction industry, food industry, construction industry



USED SECTORS

In the construction industry; gypsum, lime, fine sand, dolomite, calcite, perlite plaster, cement, stone, coal, pulverized coal powder, etc. In the food industry; feed, seeds, flour, salt, sugar, etc.



TECHNICAL SPECIFICATIONS

Measurement Distance	150-400-650-1150 mm
Operating Temperature	-20°C, +100°C
Protection Class	Ip68
Max. Operating Pressure	10 Bar
Detection Delay	Max. 1 Second
Supply Voltage	12, 35 Vdc 1.2 W
Signal Output	Role 1 inverter contact AC maximum 250 Vac, 2 A, 500 VA



NOTES

- Not affected by dust and dirt in the environment where it is used.
- The product should be kept away from material inputs.
- If there are materials that may damage the product in the area where it is used, it is recommended to attach a shield to the measurement location to protect the product.



MOTORIZED LEVEL SENSORS

These types of level switches are instruments designed for level control of coarse-grained materials in silos and containers. The operating principle is quite simple; the paddle probe of the level switch, which is mounted on the tank wall, starts to rotate at a low speed. Coarse-grained materials that rise to the probe level prevent it from turning by applying force against the paddle, thus the motor stops and can be used for control purposes by providing contact.

USAGE AREAS

It is used in the construction, building, food, and plastic industries.

USED SECTORS

Construction sector (gypsum, lime, cement, stone crushing plants), food industry (animal feed, seeds, flour, salt, sugar, tea, legumes), plastic industry.

TECHNICAL SPECIFICATIONS

Connection Terminal	Maximum 2 mm (AWG 14) cable entry
Power Supply	24Vdc-220Vac
Temperature Endurance	Ambient -20°C, +80°C, Product -5°C, +100°C
Material	Stainless Steel SS316
Connection Size	RT $\frac{1}{2}$ 'RT'-R2'
Minimum Detection Density	250 g/lit (with standard flag)
Maximum Silo Internal Pressure	0.5 Bar



VIBRATION LEVEL SENSORS

It is a variable area flow meter used in the measurement of liquid, gas, and steam, and takes measurements based on the magnetic float movement. Metal Tube Flow Meters, which can withstand hydrodynamic effects, are mostly used in vertical lines, but can also be used horizontally with special mechanical design. It is easy to read thanks to its precise pointer display and wide scale ratio, and as an optional feature, it can provide an LCD monitoring panel, contact, and 4-20mA analog output.

USAGE AREAS

High temperature and pressure applications, chemical fluids, water applications, explosive gases and liquids, abrasive fluids, analog monitoring applications that do not require electrical connection.

USED SECTORS

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

TECHNICAL SPECIFICATIONS

Application	Liquid and Solid Materials
Material	Stainless Steel
Mechanical Connection	RT $\frac{1}{2}$, with Operating Flange, Tri Clamp
Max Temperature and Pressure	150°C.....1.5 MPa
Output	PNP-NO
Supply	24VDC

NOTES

- Pay attention to high temperature and pressure information.
- Scale range can be preferred.
- Hygienic clamp connection can be made for food applications.
- Body and protection class can be selected according to corrosive and explosive fluids.



USAGE AREAS

Construction industry, food industry, building industry.

USED SECTORS

In the construction industry; gypsum, lime, fine sand, dolomite, calcite, perlite plaster, cement, stone, coal, pulverized coal powder, etc. In the food industry; feed, seed, flour, salt, sugar, etc.

NOTES

- Not affected by dust and dirt in the place of use.
- In cases where the product may be damaged depending on the application point, a shield may be required.



CAPACITIVE LEVEL SWITCH

The detection sensor at the tip of the Magicap level switch experiences a decrease in the RF power emitted after the raw material in the vicinity of the device is covered. When this decrease exceeds the sensitivity adjustment made, the device generates an output signal. Depending on the dielectric coefficient and properties of the material, sensitivity adjustment can be made through the device.

TECHNICAL SPECIFICATIONS

Measurement distance	150-400-650-1150 mm
Operating temperature	-20°C to +100°C
Protection class	IP68
Max. operating pressure	10 bar
Detection delay	Max. 1 second
Supply voltage	12-35 Vdc 1.2 W
Signal output	SPDT contact, AC maximum 250 Vac, 2 A, 500 VA.

USAGE AREAS

Shipbuilding industry, fuel, oil and acid tanks.

USED SECTORS

Dirty and clean water tanks, acid and caustic tanks, fuel and oil tanks, all pressurized and non-pressurized containers.

NOTES

- Does not require an external power source.
- Can operate at high vibration levels.



SIDE-MOUNTED LEVEL SWITCH

F1 type magnetic level switches are used for liquid level measurements of all tanks. With its side mounting, wide pressure and temperature range, and complete stainless steel contact, it has a wide range of applications. Its design, which does not require an external power source, meets your expectations with its ability to operate in a wide range of temperatures and pressures without the need for external power.

TECHNICAL SPECIFICATIONS

Pressure resistance	16 bar
Temperature resistance	Max 150°C
Connection type	Square flange
Flange feature	AISI 316
Bouyancy	Aluminum
Regulation	50-100-200 mm
Density	>0,7 kg/l
Switch capacity	250V AC, 15A..., NO+NC

USAGE AREAS

It is used for solid products in the form of dust, granules, and particles.

USED SECTORS

Food, pharmaceutical, and chemical industries.



DIAPHRAGM LEVEL SWITCH

The diaphragm level switch is the most economical method for measuring the level of bulk material in a container. It can be used in open and unpressurized tanks. It is suitable for controlling dusty, powdery, granular, and particulate bulk materials in full and empty states in silos. The membrane must come into contact with the material being controlled. As the material deposited in the silo accumulates, the membrane closes. The pressure created by the material pushes the diaphragm back and triggers the mechanism 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	1xNA/NK Micro switch
Maximum Temperature	200°C

USAGE AREAS

Hydrofor applications provide an economical and safe solution for steam boiler water level control and various conductive liquid tanks.



WATER INGRESS DETECTOR

It can be safely used in all areas where water pressure is likely and critical, and enables quick action to be taken by giving a warning with its internal siren in case of water ingress. It controls units such as pumps or solenoid valves through relay output to stop leaks. It has a 3-second detection delay feature to prevent false alarms.

TECHNICAL SPECIFICATIONS

Display	3 Alarm LEDs
Siren	1 Internal Siren
Number of Sensors	Can connect up to 3 sensors
Power	24 VDC power input
Output	Relay, 2A/125C, NO, NC output

MAGNETIC LEVEL INDICATORS

The MLG type magnetic level indicator device is used for continuous measurement, monitoring, and display of liquid level. The change in level in the tank changes the level of the liquid in the bypass tube according to the principle of combined containers. As a result, the magnetic float inside the level indicator moves and affects the magnetic flaps on the outer surface of the bypass tube, causing it to rotate 180° C around its axis. As the liquid level increases, the white flaps turn red, and as it decreases, the red flaps turn white.

USAGE AREAS

Shipbuilding industry, water tanks, condensate tanks, deaerators, fuel tanks, steam boilers, underground tanks, chemical industry, refineries, aggressive and toxic liquids, liquefied gases, all pressurized and non-pressurized vessels.

TECHNICAL SPECIFICATIONS

Pressure Resistance	10 Bar (Ops. 40 Bar)
Temperature Resistance	150°C Ops. (350°C)
Connection Types	Threaded G 1/2", 3/4", 1" - Flanged DN15, DN20, DN25
Pipe and Float	Stainless Steel
Indicator Profile	Aluminum
Output	4-20mA, 0-10V, and Contact Output



CONDUCTIVE TYPE LEVEL SWITCHES

Conductive type level switches are used for liquid level control of tanks and boilers. They can be used in critical environments, solid particle, low density, and high viscosity conductive liquids as they do not have any moving parts.

USAGE AREAS

Hydrofor applications provide an economical and safe solution for steam boiler water level control and various conductive liquid tanks.

TECHNICAL SPECIFICATIONS

Electrode Material	304 Stainless Steel Op. 316 Stainless Steel
Connection and Enclosure Material	Delrin
Output	1xNO/NC micro switch
Maximum Temperature and Pressure	60°C...6 Bar
Number of Electrodes	Max. 3 electrodes



ROPE-TYPE CAPACITIVE LEVEL SWITCH

These instruments are designed to detect the instantaneous (point) level of dusty and particulate solid materials in storage areas. The working principle is based on the capacity change of the materials in contact with the probe surface, and these instruments use electronic components to detect the level.

USAGE AREAS

Particulate solid materials such as lime, sand, coal dust, cement, clinker, wheat, corn and other grains.

USED SECTORS

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

TECHNICAL SPECIFICATIONS

Output (Contact)	1 x NC-NO Relay (220VAC/5A - 14VDC/20A)
Rope and Weight Material	304 Ss Op. 316 Ss
Length	1 meter ... 20 meter
Buoy Material	Delrin
Power Supply	24VDC



NOTES

- The length of the rope can be determined according to the application point.
- The rope can be used insulated or uninsulated.

FLOAT LEVEL SENSORS

VF-ELES Buoyancy Level Sensors are instruments designed to detect the level of liquids by utilizing the buoyancy force principle, triggering or deactivating a reed contact placed within the guide rod through the magnetic field effect of the magnetized and movable float including the guide rod. They are produced in two forms based on their usage: continuous (online) level and point level. The continuous level sensors are called level transmitters, while the point level sensors are called level switches.

LEVEL TRANSMITTERS

VF-ELES11 series is designed to detect the instantaneous (online) level of liquid fluids and can produce analog signal outputs or communication outputs for transmission and/or monitoring purposes. It offers a wide range of application with different mechanical connection options and size selections ranging from 50mm to 3000mm.

USAGE AREAS

Water and all kinds of fluids, sewage tanks, yacht and ship water tanks, hydraulic oil tanks, chemical tanks, beverage and low viscosity liquid tanks are among the places where VF-ELES products can be used.

USED SECTORS

VF-ELES products can be used in wastewater treatment plants, machinery manufacturing, yacht and ship industry, chemical industry, textile industry, hotels and swimming pools, petroleum and fuel industry, as well as in the food industry.

LEVEL TRANSMITTERS

VF-ELES7 series level switches are designed to provide instantaneous level detection at selected points, such as full or empty in liquids. It offers a wide size range from 50mm to 5000mm and can be mounted from top or side depending on the application. It provides an economic and reliable measurement with mechanical connection options such as flanged, threaded, and compression.



FLOATS



30x30x9,5 mm



41x41x11 mm



52x52x15 mm



75x70x23 mm



62x54x23 mm



40x51x15 mm

✂ TECHNICAL SPECIFICATIONS

Material of Junction and Pipe	Stainless Steel 304, 316, 316L / Delrin and PVDF / Brass
Material of Float	Stainless Steel 304, 316, 316L / PVDF, NBR, Polyurethane
Electrical Connection	M12 Terminal, DIN 43650, Terminal Blocks, 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	50mm - 5000mm
Type of Float	Spherical and/or Cylindrical
Minimum Specific Gravity	0,6 gr/cm ³
Pressure Resistance	10Bar and Op. 30Bar
Temperature Resistance	-20°C ... +120°C Op. 180°C
Sensitivity for Transmitters	5 mm - 10 mm - 15 mm
Signal Output for Transmitters	4-20mA / 0-10V / Ohm
Signal Output for Switches	NO-NC Contact / Relay
Optional Temperature Sensor	Pt100 - Pt1000

*These details are compiled for all of our products. Please contact us for specific and accurate information regarding your selection.

✍ NOTES

- It is an economical solution.
- Custom manufacturing can be done for specific applications.
- It is easy to install and assemble.
- It is not recommended for use with adhesive and high-density liquids.



VF-ELES11A



VF-V26S



VF-ELES5



VF-ELES11S



VF-V26



VF-PS045



VF-PS031



VF-PS01



VF-PS090



VF-PC-M1



VF-PC-S2



VF-PC-S1



VF-PT-5



VF-PT-4



VF-PP-3

40x35x15 mm

28x28x9,5 mm

24x24x9,5 mm

32x32x14,5 mm

28x28x10,8 mm

24x7x25x8,5 mm

STANDARD SERIES (OEM) PRESSURE TRANSMITTERS

The force applied by liquids and gases per unit area is called pressure, and equipment that converts the sensed pressure value into a specific electronic signal can be referred to as a pressure transmitter in the measurement instruments industry.

USAGE AREAS

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

USED SECTORS

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



VF-EPI & ECT SERIES

TECHNICAL SPECIFICATIONS

Connection Size	G1/4"
Measurement Range	From 0 ... 2.5 up to 0 ... 600 bar
Accuracy	$\pm 0.5\% \text{ FS} \pm 0.3\% \text{ FS}$
Temperature Range	$-40^{\circ}\text{C} \dots +125^{\circ}\text{C}$
Output Signal	4 ... 20 mA 0 ... 5 VDC 1 ... 6 VDC 0 ... 10 VDC 0.5 ... 4.5 VDC ratiometric



VF-NAT SERIES

TECHNICAL SPECIFICATIONS

Connection Size	G1/4"
Measurement Range	From 0 ... 2.5 up to 0 ... 600 bar
Accuracy	$\pm 0.5\% \text{ FS}$
Temperature Range	$-40^{\circ}\text{C} \dots +125^{\circ}\text{C}$
Output Signal	4 ... 20 mA 0 ... 5 VDC 1 ... 6 VDC 0 ... 10 VDC 0.5 ... 4.5 VDC ratiometric



VF-BCT SERIES

TECHNICAL SPECIFICATIONS

Connection Size	G1/4" - G1/2"
Measurement Range	From 0...100 mbar up to 0...600 bar; from 0...-100 mbar up to 0...-1 bar (Vacuum)
Accuracy	$\pm 0.5\% \text{ FS} \pm 0.3\% \text{ FS}$
Temperature Range	$-40^{\circ}\text{C} \dots +125^{\circ}\text{C}$
Output Signal	4 ... 20 mA 0 ... 5 VDC 1 ... 6 VDC 0 ... 10 VDC 0.5 ... 4.5 VDC ratiometric

DIAPHRAGM PRESSURE TRANSMITTERS

These are the equipment that measure the applied force on the diaphragm located at the mechanical connection point and convert it into an electrical signal for measurement purposes.

USAGE AREAS

Adhesive liquids such as those containing waste and particles, viscous liquids, and dusty gases.

USED SECTORS

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



VF-BT SERIES

TECHNICAL SPECIFICATIONS

Connection Size	1/4'-1/2' Ops. Outputs are available.
Measurement Range	From 0 ... 2.5 up to 0 ... 600 bar.
Accuracy	$\pm 0.5\% \text{ FS}$
Temperature Range	$-40^{\circ}\text{C} \dots +125^{\circ}\text{C}$
Output Signal	4 ... 20 mA, 0 ... 5 VDC, 0 ... 10 VDC



VF-FPT SERIES

TECHNICAL SPECIFICATIONS

Connection Size	G1/2" male, flush diaphragm
Measurement Range	0...1 bar to 0...100 bar
Accuracy	$\pm 0.4\% \text{ FS}$
Temperature Range	$-40^{\circ}\text{C} \dots +85^{\circ}\text{C}$
Output Signal	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC

DIFFERENTIAL PRESSURE TRANSMITTERS

These products are designed to detect the difference (Δp) between two different pressure values.

USAGE AREAS

Liquid-gas and vapor applications.

USED SECTORS

Pneumatic systems, air compressors, air cooling-heating systems, water pumps, liquid tanks, medical and chemical industries, testing systems.



VF-DMP SERIES

TECHNICAL SPECIFICATIONS

Connection Size	1/4"
Measurement Range	200 Pa ... 10 MPa
Differential Pressure Measurement Range	From ± 60 m Bar to ± 100 Bar.
Accuracy	± 0.075 % FS (± 0.05 % FS Ops.)
Temperature Range	-40°C ... $+125^{\circ}\text{C}$ (Ops. 400°C)
Output Signal	4 ... 20 mA / HART / MBAS
Ex-Proof Approval	Ex d II C T6, Ex ia II C T6



VF-BFT SERIES

TECHNICAL SPECIFICATIONS

Connection Size	M20x1.5, G1/2, G1/4, G1/4
Measurement Range	0 Bar ... 200 Bar
Differential Pressure Measurement Range	From 100 mBar to 25 Bar.
Accuracy	± 0.5 % FS
Temperature Range	-40°C ... $+125^{\circ}\text{C}$
Output Signal	4 ... 20 mA, 0 ... 5 VDC, 1 ... 5 VDC



VF-DPT SERIES

TECHNICAL SPECIFICATIONS

Connection Size	Hose Inlet
Measurement Range	-100 Pa ... +7000 Pa
Accuracy	± 1.5 %, Ops ± 0.25 %
Temperature Range	-10°C ... $+50^{\circ}\text{C}$
Output Signal	0-10V, 4-20mA Ops. Modbus

EX-PROOF PRESSURE TRANSMITTERS

They are instruments specially designed for the measurement of flammable-explosive liquids and gases.

USAGE AREAS

Combustible gases derived from LNG-LPG and flammable explosive liquids.

USED SECTORS

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



VF-EXNT SERIES

TECHNICAL SPECIFICATIONS

Connection Size	1/4'-1/2' Ops. Outputs are available.
Measurement Range	From 0 ... 2.5 up to 0 ... 600 bar
Accuracy	± 0.5 % FS
Temperature Range	-40°C ... $+125^{\circ}\text{C}$
Output Signal	4 ... 20 mA, 0 ... 5 VDC, 0 ... 10 VDC

SMART PRESSURE TRANSMITTERS

They are equipment that provides pressure measurement with advanced microprocessor technology and temperature compensation, and has high precision and capability.

USAGE AREAS

All liquid, gas, and vapor applications.

USED SECTORS

Machine industry, test and calibration systems, chemical industry, heavy industry, defense industry, petrochemical industry.



VF-DMPX SERIES

TECHNICAL SPECIFICATIONS

Connection Size	1/4" Outputs are available.
Measurement Range	From 0 ... 100 m up to - 0 ... 1000 Bar
Accuracy	± 0.075 % FS (± 0.05 % FS Ops.)
Temperature Range	-40°C ... $+125^{\circ}\text{C}$ (Ops. 400°C)
Output Signal	4 ... 20 mA / HART / MBAS
Ex-Proof Approval	Ex d II C T6, Ex ia II C T6

INDICATING PRESSURE TRANSMITTERS AND SWITCHES

The programming and display screen, which are compactly added to the pressure transmitter, allow for real-time data monitoring in the field with easy and practical use.



USAGE AREAS

All liquids and gases.



USED SECTORS

Manufacturing machines, hydraulic machines, HVAC machines (heating, ventilation, air conditioning units), cooling units, and water treatment machines.



TECHNICAL SPECIFICATIONS

Connection Size	G1/4" - G1/2"
Measurement Range	From 0 ... 0.2' up to 0 ... 600 Bar
Accuracy	± 0.5 % FS
Temperature Range	-25°C ... +85°C
Output Signal	4 ... 20 mA, 0...10 VDC, Selectable mA or V
Switching	2 PNP transistors (Ops. Contact Output)



NOTES

- Absolute or relative measurement
- Programmable via NFC with a mobile phone
- Current and voltage output options in a single device



PRESSURE SWITCHES

Pressure measurement equipment that detects pressure data and is designed for switching, safety, and alarm purposes at set points or points.



USAGE AREAS

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



USED SECTORS

Machine parts, hydraulic, industrial applications.



VF-TG SERIES



TECHNICAL SPECIFICATIONS

Connection Size	G1/4", G1/8"
Measurement Range	From -200mBar to -800mBar and from 0.1 bar to 600 bar.
Accuracy	≤%5
Temperature Range	-30°C ... +100°C (Ops. 250 °C)
Output Signal	No/Nc/Variable(No&Nc)



VF-KP SERIES



TECHNICAL SPECIFICATIONS

Connection size	G1/4"
Measurement range	-0,2...7,5 / 2...14 Bar (KP35/36)
Temperature range	-40°C ... +60°C
Output signal	No/Nc/Variable(No&Nc)

MANOMETERS

This product group, which includes standard type, diaphragm type, industrial type, contact type, etc. and is the easiest way to monitor pressure information, is widely used today in gas, liquid, and vapor lines. There are mechanical connection types that can be shaped according to the process, and some models are manufactured with contacts for switching. Our product portfolio includes gauge diameters from 40mm to 200mm, and pressure ranges from -1 bar to 1000 bar, including vacuum lines. It is used in many sectors and fields such as petrochemicals, machinery, energy, food, cooling, chemicals, textiles, paper, pharmaceuticals, and ships.

USAGE AREAS

Liquids, vapors, and gases.

USED SECTORS

Shipbuilding industry, clean water transportation systems, waste water systems, chemical and petrochemical industry, power plants, food and beverage industry, milk machines, pharmaceutical industry, machinery industry, etc.



VF-A300 SERIES



VF-A300-TC1 SERIES



VF-S100 SERIES

TECHNICAL SPECIFICATIONS

STAINLESS STEEL SERIES PRESSURE GAUGES	
Connection Size	G 1/4 B (63 mm) - G 1/2 B (100 mm, 160 mm)
Indicator Sizes	63mm, 100mm, 160 mm
Measurement Range	From -1...0 up to 0...1600 Bar
Accuracy	Cl. 1.6 (63 mm) Cl. 1.0 (100 mm, 160 mm)
Temperature Range	+200 °C maks. (Dry Type) +100 °C maks. (Glycerin Type)

TECHNICAL SPECIFICATIONS

CLAMP DIAPHRAGM PRESSURE GAUGES	
Connection Size	DN 25, DN 32, DN 40, DN 50 (DIN 32676) 1", 1 1/2", 2" (ISO 2852)
Indicator Sizes	63mm, 100mm, 160 mm
Measurement Range	From -1 ... 0 up to 0 ... 40 bar arası
Accuracy	Cl. 1.6 (63 mm) Cl. 1.0 (100 mm, 160 mm)
Temperature Range	+100 °C maks. (Dry type) +100 °C maks. (Glycerin Type)

TECHNICAL SPECIFICATIONS

STANDARD SERIES PRESSURE GAUGES	
Connection Size	G 1/8 (40 mm) - G 1/4 B (50 mm, 63 mm) G1/2 B (100 mm, 160 mm)
Indicator Sizes	40mm, 50mm, 63mm, 100 mm, 160mm
Measurement Range	From -1 ... 0 bar up to 0 ... 400 bar
Accuracy	Cl. 2.5 (40 mm, 50 mm, 63 mm, 100, Cl. 1.6 (160 mm)
Temperature Range	+60 °C max.



VF-A300-RB4 SERIES



VF-A300-FB5 SERIES



VF-C600 SERIES

TECHNICAL SPECIFICATIONS

HYGIENIC GAUGES WITH CLAMP CONNECTIONS	
Connection Size	DN 25, DN 32, DN 40, DN 50 (DIN 11851 1 1/2", 2" (SMS)
Indicator Sizes	63 mm, 100 mm, 160 mm
Measurement Range	From -1 ... 0 up to 0 ... 40 bar
Accuracy	Cl. 1.6 (63 mm) Cl. 1.0 (100 mm, 160 mm)
Temperature Range	+100 °C maks. (Dry type) +100 °C maks. (Glycerin Type)

TECHNICAL SPECIFICATIONS

FLUSH SERIES DIAPHRAGM PRESSURE GAUGES	
Connection Size	DN 40, DN50
Indicator Sizes	63 mm, 100 mm, 160 mm
Measurement Range	From up -1 ... 0 up to 0 ... 40 bar
Accuracy	Cl. 1.6 (63 mm) Cl. 1.0 (100 mm, 160 mm)
Temperature Range	+150 °C maks. (Dry type) +100 °C maks. (Glycerin Type)

TECHNICAL SPECIFICATIONS

CAPSULE DIAPHRAGM PRESSURE GAUGES	
Connection Size	G 1/4 B (63 mm) - G 1/2 B (100 mm, 160 mm)
Indicator Sizes	63 mm, 100 mm, 160 mm
Measurement Range	-25 ... 0 mbar ile 0 ... 600 mbar arası
Accuracy	Cl. 1.6 (Positive pressure scales) Cl. 2.5 (Vacuum scales)
Temperature Range	+60 °C max

TEMPERATURE SENSORS

These are instruments designed to detect, observe, and control temperature data of environments or substances. We can categorize them into three main types: resistance thermometers, thermocouples, and infrared thermometers.

THERMOCOUPLES

USAGE AREAS

Applicable for solid, liquid, gas, and vapor applications.

USED SECTORS

It is used in many fields such as the machinery industry, cement plants, glass and ceramic industry, food industry, pharmaceutical industry, chemical and petrochemical industry, heavy industry and defense industry, testing units, HVAC, and even agriculture.

NOTES

- The right type should be selected according to the temperature.
- Optional custom productions can be made.



HEAD TYPE THERMOCOUPLES

Straight type thermocouples are commonly used in various processes ranging from -200°C to 2320°C . Process conditions should be well defined in order to extend the life of the thermocouple. Accordingly, if a suitable element, insulator, external protective cover, or internal protective cover is required for the thermocouple, it should be selected correctly. L type thermocouples are used for temperature measurement of molten metals and salt baths.



SPECIAL THERMOCOUPLES

Special products can be made to meet the variable connection types and physical structures required by processes, such as PP connector heads and Teflon sheathed models for acidic environments, and Ex-proof protected models for explosive environments, among others.

TECHNICAL SPECIFICATIONS

Type	J - K - T - E - N
Wire Diameter	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, KER 610, KER 710 (C799) Silicon Carbide
Number of Thermocouples	Single / Dual / Multiple
Connector / Head	DIN 43729 Aluminum, IP67

TECHNICAL SPECIFICATIONS

Type	- K - T - E - N - R - S - B
Connection Types	R or NPT, 1/4", 3/8", 1/2", 3/4", 1" DIN or ASME Flange
Protective Sheath	Ceramic KER 530, KER 610, KER 710 (C 799) Silicon Carbide, Sialon Silicon Nitride (Si3N4), PTFE, PVDF, PFA
Number of Thermocouples	Single / Dual / Multiple
Signal Output	4-20mA - 0-10V
Connector / Head	DIN 43729 Aluminum (Ops. Ex-Proof, Bakelite)



PLATINUM THERMOCOUPLES

They are preferred for high temperature measurements. Production is carried out in accordance with process characteristics of environments ranging from 1200°C to 1600°C . They are preferred in cement, aluminum, copper, iron and steel, ceramic and glass industries.



MINERAL INSULATED AND BAYONET THERMOCOUPLES

Mineral-insulated thermocouples, which can be manufactured as single or dual element, can be used between -40°C and 1600°C . Thermocouple wires are placed in a thin metal protector and isolated by compressing them with high purity metal oxide powder.

Bayonet thermocouples are generally preferred in simple processes. They are produced as wired and spring-compressed. They do not have a sealing feature.

TECHNICAL SPECIFICATIONS

Type	R - S - B
Wire Diameter	0.35 - 0.50 - 0.80 (Approximate Dimensions)
Protective Sheath	Ceramic KER 530, KER 610, KER 710 (C 799) Silicon Carbide, Silicon Nitride (Si3N4)
Number of Thermocouple Elements	Single / Dual / Multiple
Connector / Head	DIN 43729 Aluminum, IP67

TECHNICAL SPECIFICATIONS

Type	J - K - T - E - N
Cable Lengths	1m, 1.5m, 2m, 3m, 4m, 5m
Protective Sheath	Stainless Steel, Brass Coated
Connection Dimensions	M12x1.5, M12x1.75, R1/4...
Connection Types	Fixed, Detachable, Spring-Loaded, Manifold...

RESISTANCE THERMOELEMENTS (PT 100/PT 1000)

USAGE AREAS

Suitable for solid, liquid, gas, and vapor applications.

USED SECTORS

They are used in many fields such as machine industry, cement plants, glass and ceramics industry, food industry, pharmaceutical industry, chemical and petrochemical industry, heavy industry and defense industry, testing units, climate control and agricultural industry.

NOTES

- The correct type should be selected according to the temperature.
- Optional special productions can be made.



HEAD TYPE THERMOELEMENTS

Platinum resistance thermoelements are temperature sensors that can measure temperatures between -200°C to +450°C with high accuracy. They can be named as PT100, PT1000, etc.



SPECIAL THERMOELEMENTS

Special products can be made for variable connection types and physical structures required by processes, such as PP connector head and models with Teflon coating for acidic environments, and Ex-proof protected models for explosive environments.

TECHNICAL SPECIFICATIONS

Type	PT100, PT200, PT500, PT1000, PT2000
Wire Diameter	0,80 - 1 - 1,6 - 2 - 2,5 - 3 mm
Protective Sheath	SS316 - SS310
Element Structure	Çekirdek, Class A, Class b
Number of Elements	1X, 2X, 3X, 6X
Signal Output	4.20mA - 0.10V

TECHNICAL SPECIFICATIONS

Type	PT100, PT200, PT500, PT1000, PT2000
Protective Sheath	SS316 - SS310 - (PTFE-PVDF-PFA)
Sheath Diameters	Production possibilities in the range of 3mm to 22mm
Element Structure	Core, Class A, Class B, Foil, Glass, Ceramic
Number of Elements	1X, 2X, 3X, 6X



MATCH THERMOELEMENTS

MAÇA type temperature sensors have pointed tips suitable for immersion applications. They are commonly used in food and meat processing plants and are available in various special designs. They can have stainless steel or Teflon handles.



SOCKET AND INDICATING THERMOELEMENTS

These models are generally developed for machine applications or process points for easy readability. Output selection can be provided via the display and data can be monitored and adjusted on a phone using an Android application (NFC). The temperature measurement range can be adjusted.

TECHNICAL SPECIFICATIONS

Type	PT100, PT200, PT500, PT1000, PT2000
Protective Case	SS316
Case Diameters	4mm ... 6mm Production Capabilities Within the Range
Element Structure	Core, Class A, Class B

TECHNICAL SPECIFICATIONS

Type	PT100, PT1000
Mechanical Connection	R 1/2" (Ops. Customized)
Insertion Length	50 mm ... 500 mm
Power Supply	10 - 30 VDC
Signal Output	4-20mA, 0-10V, (2xPNP Model with Display)
Accuracy	± 0.5 % FS
Memory (with Display)	Non-volatile Memory: 3518 data points Sampling Time: 0.1 ... 999.9 s, Off (0)

TEMPERATURE & HUMIDITY SENSORS

VF-HT Series temperature and humidity transmitters are precise measuring devices that use capacitive sensors. Thanks to the updated sensor and integrated technology, they can be used in almost all conditions. Even if the sensor comes into direct contact with the liquid, it can continue to take measurements when the liquid evaporates.

USAGE AREAS

From cold storage rooms to poultry farming, from office temperature-humidity monitoring systems to isolated rooms,



VF-HT100 SERIES

It can be easily used in different applications with its standard wall-mounted or extendable cable, and monitoring can be easily done with its display model. If monitoring is not desired at the application point, economical models without a display can be preferred. In addition to relay and analog signal outputs, an optional RS485 Modbus communication module can be added.



VF-HT101 SERIES

It is a line-type temperature and humidity transmitter developed for air ducts and immersion temperature-humidity applications. It is available with display or without display options, and probe options such as stainless steel, brass, and plastic, as well as specially developed filter options for pressurized environments, are available.

TECHNICAL SPECIFICATIONS

Display Features	2 x 14mm 4 digit custom display (15m reading distance)
Signal Output	For temperature and humidity: 4-20 mA / 0-10 V and/or 2x3A Relay + RS485 Modbus
Protection Class	IP65 (optional IP68)
Accuracy	0.2% °C, 3% rH accuracy
Temperature Resistance	Temperature range from -40°C to +120°C
Power Supply	24VDC power supply
Connection Type	Wall Mount and Threaded Mount
Probe Material	Options for probe material: stainless steel, brass with filter, threaded stainless steel, PVC sensor body
Filter Material	Options for filter material: stainless steel or PTFE
Cable Length	5m cable (optional up to 30m)
Options	Dual sensor option

TECHNICAL SPECIFICATIONS

Screen Features	2 x 14mm 4 digit custom display (15m reading distance)
Signal Output	For temperature and humidity; 4-20 mA / 0-10 V or 2x3A Relay + Rs485 Mbus
Protection Class	IP65 (Optional IP68)
Accuracy	0.2% °C, 3% rH
Temperature Resistance	-40°C ... +80°C
Power Supply	24 VDC Power Supply
Connection Type	DIN Rail Mounting
Probe Material	Stainless steel, brass filtered, stainless steel threaded, PVC sensor body options
Filter Material	Stainless or PTFE



VF-HT W10

It is developed for monitoring temperature and humidity data via GSM, and with the improvements, it has been added with external 2 analog, 2 logic, and 16 Mbus parameter reading and GSM communication features. Recording and web transmission times of all data can be adjusted.



VF-HT13/14

They are special series products that can provide serial 4-20mA output for temperature and humidity. They are practical and economical for applications.

TECHNICAL SPECIFICATIONS

Screen Features	2x4-20mA/0-10V Analog Input, 2xTemperature Humidity Sensors, 2xLogic Input, 1xRs485 Modbus RTU
Temperature Measurement Range	-40°C / +120°C
Temperature Accuracy and Resolution	+/- 3°C ... +/- 0.1°C
Humidity Measurement Range	0-100 %rH
Humidity Accuracy and Resolution	+/- 2%rH... +/- 0.1%rH
Outputs	4x220V 5A AC Relay Output, 1xRs485 Modbus RTU
GSM Communication	Quad-band; 850/900/1800/1900MHz GPRS Multi-slot Class: 12 GPRS Mobile Station: Class B Operating Temperature -40°C / +85°C
Power Supply and Memory	10-32VDC / 100,000 Records / 10 Years Memory Retention

TECHNICAL SPECIFICATIONS

Power Supply Voltage	2...36VDC / 100-240VAC
Measurement Range (Temperature)	-20...+80°C / -40...120°C
Measurement Range (Relative Humidity)	0...99% RH
Accuracy (Temperature - Humidity)	±0.1% - ±0.1%
Output	4-20mA (2 / 3 Wire) 0-10V Optional 2xRelay Output
Display	Optional 2x 4 Digit Numerical Display

PROCESS INDICATORS / CONTROL DEVICES

Control instruments are designed for monitoring, controlling, and transmitting signals in industrial processes. Flow rate meters, universal input indicators, and control devices can be examined under subheadings such as temperature control devices and step control devices.

FLOW INDICATORS

These devices are developed for monitoring and controlling instantaneous and total flow rate, and for transmitting this information through various output options.

✂ TECHNICAL SPECIFICATIONS

Product Code	VF-TCS	VF-FBT	VF-TCS37
Size	72x72 mm / 96x96 mm		36x72 mm
Display	2x6 dijit (8 mm)		6 dijit (8 mm)
Switching	2x8 A Relay		1x8 A Relay
Analog Output	-	4-20 mA / 0-20 mA	-
Communication	-	RS485 MODBUS ASCII/RTU	-
Supply Voltage	12 VDC - 24 VDC - 220 VAC		
Counting Rate	-	-	10 kHz

INDICATORS WITH UNIVERSAL INPUT

These are simple type control indicators designed for monitoring and controlling process values compatible with universal input types (temperature and sensors with analog output). Output can be obtained by defining different alarm options.

✂ TECHNICAL SPECIFICATIONS

Product Code	VF-DI 377	VF-UIP
Size	35x77 mm	48x48, 72x72, 48x96, 96x48 mm
Display	4 dijit (10 mm)	2x4 dijit (Top: 14 mm Bottom: 10 mm)
Input	Termokupl, PT-100, PTC, NTC, 4-20 mA, 0-10 V, ohm	4-20mA, 0-20mA, 0-60mV, 0-10V Thermocouple, PT-100 additional 2. Input 4-20 mA
Switching	4x8A Relay	2x8A Relay (Ops. 3x8A Relay)
Analog Output	-	4-20 mA, 0-20 mA, 0-10V
Communication	-	RS485 MODBUS ASCII/RTU
Accuracy	%0,5	%0,3
Supply Voltage	12 VDC - 24 VDC - 220 VAC	

COMPACT UNIVERSAL INDICATORS

VF-EPD11 digital display is used to convert and display 4-20mA signals from transmitters into the desired measurement unit. It is designed for easy attachment/removal to 2-wire transmitters with DIN43650 socket connection. The product has high accuracy, stability, and easy-to-use features. It is a suitable solution to add display and alarm set points to pressure or other transmitters.

✂ TECHNICAL SPECIFICATIONS

Product Code	VF-EPD 11
Applications	4-20 mA value or percentage display, 2 independent alarm/switch outputs
Input Signal	4-20 mA (2-wire)
Power Supply	4-20 mA 2-wire loop-powered, max pressure drop 8VDC
Output Signal	4-20 mA 2-wire signal output
Field Operation	3 buttons, all parameters can be modified on-site
Display	Dual-row 5-bit/8-bit, 7-segment/16-segment backlit LCD display -19999-99999
Accuracy and ADC Sampling	%0.1 F.S ±1 bit / 24 bit
Number and Status of Switches	2 way PNP / NA
Switch Function	High alarm, low alarm, window function, hysteresis function
Measurement Units	kPa, MPa, Pa, bar, mbar, psi, mH ₂ O, mmH ₂ O, Torr, atm, kg, g, mg, N, kN, °C, °F, K, %RH, %VOL, PPM, %LEL, pH, m, cm, mm, inch, m/s, Ω, kΩ, mV/V



UNIVERSAL INPUT CONTROL DEVICES

These sensors are used for monitoring and controlling process values in applications where temperature and analog measurements are taken. For control output, there are On-Off, Proportional (P), Proportional + Integral (PI), and Proportional + Integral + Derivative (PID) operating modes available. Different alarm options are defined for outputs. In addition, it can be integrated with other systems via the Modbus communication protocol. The analog output enables current or voltage information to be conveyed to the outside world according to the process value.

TECHNICAL SPECIFICATIONS

Product Code	VF-UPC 4	VF-UPC 7	VF-UPC 49
Size	48x48 mm	72x72 mm	48x96 mm
Indicator	2x4 dijit (Top: 7 mm, Bottom: 7mm)	2x4 dijit (Top: 14 mm, Bottom: 10mm)	
Process Input	Universal Process Input: 4...20mA, 0...20mA, 0...60mV, 0...10V, Thermocouple (J,K,R,S,T), PT-100 (with lead compensation)		
Accuracy	%0.3		
Control Output	2 Relay Output (8A@250Vac)		
Analog Output	4...20mA, 0...20mA		
Communication	RS485 Modbus RTU/ASCII		
Power Supply Voltage	220Vac, 24Vdc, 12Vdc (It should be specified in the order.)		



TEMPERATURE CONTROL DEVICES

It is designed for monitoring and controlling temperature values measured with all types of thermocouples, PT-100, PTC, and NTC sensors. It can be used in many applications with ON/OFF or time proportional (P) operating mode, heating/cooling function selection, alarm output, and different alarm options. Delay time can be defined for pull-in/drop-out of the alarm output.

TECHNICAL SPECIFICATIONS

Product Code	VF-TCS 377-X	VF-TC 4	VF-TC 38
Size	35x77 mm	48x48 mm	35x88 mm (Rail Type)
Indicator	4 dijit, 10mm		3 dijit, 8mm
Process Input	Thermocouple (J,K,R,S), PT-100, PTC input (Input type should be specified in the order.)		
Accuracy	%0.5		
Control Output	Relay Output (8A@250Vac)		
Resolution	1 °C 0.1°C (PT-100, 0...100 °C For measuring range)		
Power Supply Voltage	220Vac, 24Vdc, 12Vdc (It should be specified in the order.)		



STEP CONTROL DEVICES

Step/Profile control device is designed for measuring and controlling temperature or any process value in the industry. It can be used in many applications with ON/OFF or time proportional (P) operating mode, heating/cooling function selection, alarm output, and different alarm options.

TECHNICAL SPECIFICATIONS

Product Code	VF-PRFC7
Size	72x72 mm
Indicator	2 x 4 dijit, Top: 14mm, Bottom: 10mm
Process Input	Termokupl (J,K,R,S), PT-100, PTC input (Input type should be specified in the order.)
Accuracy	%0.5
Control and Alarm Output	Relay Output (8A@250Vac)
Resolution	1 °C
Power Supply Voltage	220Vac, 24Vdc, 12Vdc (It should be specified in the order.)
Number of Steps	up to 20 steps



SIGNAL TRANSDUCERS

These devices are designed to convert and transmit analog and digital signal outputs to systems with different input options. Easy installation and isolation from external factors are important for the correct application of such conversion devices.

RAY TYPE UNIVERSAL SIGNAL TRANSDUCERS

These are DIN-rail mounted conversion devices designed to convert all types of thermocouples and resistance thermoelements, as well as 0/4-20mA current and 0-50mV voltage inputs, into 0/4-20mA and 0/2-10V voltage outputs.

TECHNICAL SPECIFICATIONS

Product Code	VF-UT 17	VF-UT 18
Supply Voltage and Power Consumption	8-36VDC / 2W,3VA	
Universal Analog Input (I)	Thermocouple: B, E, J, K, L, N, R, S, T, U Resistance Thermometer: PT100 Current: 0/4-20mA Voltage: 0-50mV	
Analog Output and Measurement Resolution	16Bit	
Sampling Period	400ms	
Analog Output (O1)	Current: 0/4-20mA Voltage 0/2-10V	
Load Resistance (RL)	Current: $RL \leq 600\Omega$ Voltage: $RL \geq 1M\Omega$	
Accuracy ($T_{amb}=25^{\circ}C$)	PT100 : $\pm 0,2\%MV \pm 0,3^{\circ}C$ (Typ) T/C,mV : $\pm 0,2\%MV \pm 1^{\circ}C$ (Typ)	
Thermal Drift	$\pm 100ppm/^{\circ}C$ (Typ)	
Galvanic Isolation	1500V 3 Way	
Memory	100 years 100,000 Renewals	
Response Time	0,4 ... 10,0s	
Operating Temperature and Protection Class	$-20 \dots +65^{\circ}C$ / IP20	
Dimensions	Width: 25mm Height: 91mm Depth: 113mm	
Number of Channels	Single Channel	Dual Channel
Proportional Linkage	-	Between 2 Exits



HEAD MOUNTED SIGNAL TRANSDUCERS

Devices designed for obtaining Analog 4-20 / 20-4 mA outputs from temperature sensors such as thermocouples of types B, E, J, K, L, N, R, S, T, U, and resistance thermometers such as PT100, and level sensors producing resistance output. These devices are suitable for both panel and DIN rail mounting.

TECHNICAL SPECIFICATIONS

Product Code	VF-LT Series	VF-TT Series
Supply Voltage	8 ... 36 VDC	
Analog Input Types	100R-100K	thermocouplel : B,E,J,K,L,N,R,S,T,U, PT100
Analog Input Impedance	-	10M Ω
Input Resolution	16 Bit	
Sampling Period	100ms	
Analog Output	4-20mA, 20-4mA	
Output Resolution and Accuracy	0,1% / $\pm 0,2\%MV \pm 0,2\%$ (Typ)	0,1% / PT100 : $\pm 0,2\%MV \pm 0,3^{\circ}C$ (Typ) T/C,mV : $\pm 0,2\%MV \pm 1^{\circ}C$ (Typ)
Thermal Drift	$\pm 100ppm/^{\circ}C$ (Typ)	
Memory	100 years, 100.00 Renewal	
Response Time	0,2 ... 120s	
Operating Temperature	$-40 \dots +85^{\circ}C$	
Dimensions	Diameter: 44mm Height: 21mm	
Galvanic Isolation	1500V (Ops.)	



ACTUATORS

Actuators are the components that enable the opening and closing operations of a system or mechanism. They come in different types depending on their usage and application areas. They usually control this operation using hydraulic, pneumatic, or electrical power.



VF-VT



VF-ATG



VF-KE 100

✂ TECHNICAL SPECIFICATIONS

PNEUMATIC ACTUATOR	
Body and Piston	Aluminum
Operating Temperature	-20°C ... +80°C
Shaft Material	Alloy Steel
Solenoid Valve Connection	Namur
Supply Pressure	5 - 8 Bar
Switch Box Connection	Namur
Valve Connection	ISO5211
Rotation Angle	90° ±5°

✂ TECHNICAL SPECIFICATIONS

PNEUMATIC ACTUATOR	
Body and Piston	Aluminum
Operating Temperature	-20°C ... +80°C
Shaft Material	Alloy Steel
Supply Pressure	5 - 8 Bar
Switch Box Connection	Namur
Valve Connection	ISO5211
Rotation Angle and Effect	180° (unknown effect)

✂ TECHNICAL SPECIFICATIONS

ELECTRIC ACTUATOR	
Type	Quarter Turn Electric Actuator
Body Material	Aluminum (Polyester Coated)
Connection and Protection Class	ISO 5211 / IP67
Supply Voltage	220Vac (Standard), Optional
Ambient Temperature	-20°C & 70°C
Torque Values	20 & 500 Nm
Valve Connection	ISO5211
Limit Switch	2 Standard Pieces
Motor	Class F

VALVES

According to this definition, the devices you mention are called valves. A valve is a mechanical device used to open or close a fluid path, such as a pipe or conduit. It can be moved by electric or pneumatic controls.



VF-PV 250



VF-1901 SERIES



VF-7901 SERIES

✂ TECHNICAL SPECIFICATIONS

PULSE VALVE	
Body Material	Aluminum
Position	NK
Measurement	Threaded, flanged, or record connection from 3/4" to 4"
Diaphragm/Gasket	Silicone/Rubber
Coil	12VAC/DC ... 220VAC

✂ TECHNICAL SPECIFICATIONS

BRASS BODY SOLENOID VALVE	
Body Material	Brass
Position	NK-NA
Measurement	1/8" ... 2" (with optional hose connection)
Diaphragm/Gasket	NBR, EPDM, HNBR, Viton, Teflon, Rubin, POM
Coil	12, 24 VAC/DC ... 220VAC
Operating Modes	Pilot operated, direct acting, diaphragm operated.

✂ TECHNICAL SPECIFICATIONS

STAINLESS BODY SOLENOID VALVE	
Body Material	Stainless Steel
Position	NK, NA
Measurement	1/8" ... 1"
Diaphragm/Gasket	Viton, NBR, Teflon
Coil	12, 24 VAC/DC ... 220VAC

VALVES

Mechanical control products that adjust, stop or change the flow direction of different fluids with on-off or proportional operation, which are driven by reducers, hand levers or actuators, are available in different norms. There are various types such as spherical, butterfly, globe, blade, plug, etc. and different types can be preferred according to the characteristics such as pressure, temperature, type of fluid, density, viscosity in the process.



WAFER BUTTERFLY

TECHNICAL SPECIFICATIONS

Body Material	Ductile Iron
Connection	Wafer
Pressure Class	Optional
Actuator Compatibility	Pneumatic and Electric



BALL VALVE

TECHNICAL SPECIFICATIONS

Body Material	Stainless Steel, Brass
Connection	Threaded, Flanged, Wafer
Pressure Class and Max. Temperature	PN10 (Optional PN63) / 180°C
Actuator Compatibility	Pneumatic and Electric



PINCH VALVE

TECHNICAL SPECIFICATIONS

Body Material	Cast Aluminum
Connection	Threaded, Flanged
	Compliant with Namur Standard



3 WAY VALVE

TECHNICAL SPECIFICATIONS

Body Material	Stainless Steel, Brass
Connection and Connection Type	Threaded / L or T Type
Pressure Class and Max. Temperature	PN63 / 180°C
Actuator Compatibility	Pneumatic and Electric



TIME CONTROL VALVE

TECHNICAL SPECIFICATIONS

Body Material	Stainless, Brass, PVC
Max. Pressure and Temperature	PN10 / 90 °C
	2-Way or 3-Way Models
	On-Off or Proportional Models
	Time-Controlled Models



PVC BALL VALVE

TECHNICAL SPECIFICATIONS

Body Material	PVC
Connection Type	Full Bore
Pressure Class and Max. Temperature	PN10 / 60 °C
Actuator Compatibility	Pneumatic and Electric

LASER TEMPERATURE METER



It is a non-contact (infrared) temperature sensor that can provide data readings within the temperature range of -60...+2000 °C. There are models available that are easy to use and ergonomic, designed as handheld devices.

FIELD AREA METER



It is a practical and highly precise product that can measure area in square meters using GPS signals. It has a Turkish menu and a user-friendly interface, allowing you to take measurements with just one button.

ANEMOMETER



These are easy-to-use devices that measure wind/air speed in open areas or tunnels with airflow. Many models of these devices also measure temperature and humidity values.

PH, EC, TDS, CHLORINE METERS



These are devices developed for analytical measurements such as pH, conductivity, salinity, dissolved oxygen, chlorine, etc. They are available in handheld, laboratory-type, and online (continuous) measurement models. Some models have analog and/or digital signal output options for monitoring and control purposes.

SOUND (DECIBEL) METER



These are compact handheld devices developed for measuring and detecting sound intensity. Different models are available that combine various measurement parameters such as temperature, humidity, and light.

GAS LEAK DETECTOR



These are devices that can detect gas leaks of harmful gases such as carbon monoxide, ammonia, methane, propane, which can pose a risk to human health. They can trigger an alarm if the level exceeds the threshold indicated by sound and light signals.

DATA RECORDING DEVICES

These are devices that produce output according to all types of thermocouples, resistance thermoelements, and universal analog input types, and store the data detected by the sensor groups in their memory. They have a display that allows you to view graphical or tabular data on the screen. Many models of these products have communication outputs and monitoring software for data analysis on a computer. In addition, analog signal outputs can transfer data to different control units.



Number of Channels	2, 4, 6...40 Channels
Display	320x200 LCD Screen (Variable Depending on 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, 24VDC Sensor Power Supply
Graph	Graph data colors of records can be changed
Indicator	Records can be viewed on the same screen as numerical/horizontal or vertical graph/bar graph
Recording Time	Interval can be changed between 1 s - 30 min
Power Supply	220 VAC Ops. 24 VDC

DATALOGGER

These are products designed to record real-time temperature data of products such as pharmaceuticals and food, typically used to monitor temperature changes during transportation.



Temperature Measurement Range	-35 ... +70°C
Temperature Sensitivity and Resolution	$\pm 0.5^\circ\text{C}$ / 0.1°C
Protection Class and Standards	IP67 / EN 12830
Recording Intervals	1 minute - 24 hours
Operating Time	90 days
Certificate Type	International HACCP Certified
Memory Capacity	16.000
Operating Temperature	-35 ... +70°C
Storage Temperature	-55 ... +70°C

AUTOMATION AND DESIGN

- HVAC and cold room automation
- Energy monitoring automation
- Test unit automation
- Automation for greenhouses, mushroom and hatchery facilities
- Well and reservoir automation
- Agricultural irrigation automation
- Measurement and monitoring automation
- On-board torque unit
- Panel and control units
- PID and PLC applications and engineering services
- Custom circuit board designs



INDUSTRY 4.0

What is ?

This concept, which is described as the 4th generation industrial revolution or the new generation industry, entered our lives in 2011. It has also brought many new concepts such as the internet of things, big data stores or cyber security into our lives. Intelligently equipped production and living areas work in an integrated manner, minimizing human muscle power, almost zero production errors occur, production will occur almost according to consumption with the data taken from living areas, so that there is no stock problem, and costs are minimized with all other components such as energy efficiency. intended.

How ?

Integration with sensors and information readers that can continuously produce data in production and living areas, Storage / protection of this produced data via the cloud or large servers, processing of big data by software and even artificial intelligence intelligent production elements and managing the production process. Our slogan, which we have used for years, reminds us of our duty in the integration of our country to this change; In this process, we are at the service of our industry with all our strength and capabilities.



FLOWMETER



LEVEL



PRESSURE



FLOW



HEAT - HUMIDITY

RESISTANCE
THERMOMETER

THERMOCOUPLE



ANALYSIS



GAS



ANGLE - SLOPE

CONTROL
AUTOMATIONACTUATOR
AND VALVEPROCESS
INDICATORCOMPACT
INDICATOR

VFA ELEKTRONİK



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