INGESA

PUMPING EQUIPMENTS



Volumetric portable equipment

The B-92 are portable equipments, made to be taken where a dosage is required. A control measuring glass assembled with a reversible pump which feeds and discharges that glass into the mixer, together in the same equipment.

They can be controlled manually with a button installed on the pump to feed and discharge.



The control glass can be made of methacrylate, PVC or glass, depending on the liquid to contain specifications. Its capacity can be from 3 to 25 litters.

Single-phased 220 V or three-phased 380 V motor. The equipment bear up to 3 bar of inlet pressure.

For all kind of liquids, either aggressive or non-aggressive, even those with high levels of viscosity and density.

Reduction of costs and room.

2

Security and guarantee due to the visual control glass.

Metallic structure painted with anticorrosive impression.

It is perfect to work inside the recipient with the liquid to dose, due to its capacity to be portable. Very useful in small precast concrete installations, for metering colorants or for other chemical procedures which need a reliable dosage with a tight budget.

DOSAMAT



Volumetric dispenser to measure and control liquids

The Dosamat dispensers are operated manually by a single push button or switched automatically to work with the batching plant cycle.

Every dispenser is assembled with a single reversible pump which supplies the measuring glass from the admixture tank and discharges it automatically to the mixer when the preselected dose is measured. The dose is preselected manually with an scaled electrode. In this case, with a reversible pump, as it must be always below or, at the most, at the same level of the liquid tank of the plant, to keep the control within sight and reach of the batcher operator, we separate the equipment in two parts.





But it also can be assembled with a single discharge pump which works together with an external feed pump to supply the Dosamat glass. In that case the equipment is assembled in a block

The available capacities of the measuring glass are from 3 to 25 liters.

Single-phased 220V of three-phased 380V motor.

For all kind of liquids, both aggressive and non-aggressive, even those with high levels of viscosity and density.

Security and guarantee due to the measuring glass and the safety scaled electrode.

Very useful in concrete batch plants, block plants, pre-castworks or whichever construction site which needs an accurate dosage with a tight budget.







CONTAMAX

Admixture dispenser system



The Contamax dispenser is operated manually or switched automatically to work with the batching plant cycle.

Every Contamax dispenser is assembled with a single self-priming feeding pump which takes up the liquid from the admixture tank and discharges it automatically wherever you need it. The dose is preselected in the control pannel or PC and it is measured by the flowmeter device.

The pump aspirates the liquid from the tank and drives it through a filter to clean it. Then it pass through the flowmeter to be metered and a fluid detector which avoids that the flowmeter keep on working when there is no liquid.

The system is also equipped with two check valves, to avoid inverse flow, at the inlet and outlet of the circuit, and a second inlet to clean everything with water.

All the assembly is protected by a polyethylene box against external agents.

NON-STOP LOW FLOW



Continous low flow liquid dispenser

This equipment is especially suited to provide liquids in installations where a continuous low flow is required. It does that the liquid recirculates continuously.



The filling equipment receives the liquid from the tank and drives it to the mixture constantly. The minimum that it is able to keep is 6 liters/hour, 0,1 liters/minute. For higher flows it may be necessary to change any of its components, either the pump or the flowmeter.

The assembly has the pumping system, a control touch-screen and a PDI control inverter. The inverter controls the speed of the pump, modifying its frequency when it is necessary. A flowmeter is assembled at the outlet of the pump, checking the liquid flow instantaneously and sending the data to the inverter. This way the inverter changes the speed of the pump by its frequency if the instantaneous flow is different to the preselected. The flow can be selected at any time by the control touch-screen, which is connected to the inverter with an special wire called ModBus.

The control of the flow can also be carried out by the PLC of the plant. To indicate to the inverter which order has to give priority to, whether the PLC or the control touch-screen, we have an option on the same control touch-screen.

Everything is integrated into a polyethylene box to protect it against external agents.





LUSITANIA

Basic and fundamental volumetric dosifier

The Lusitania are analogue volumetric dispensers which includes impulse transmitter, dosage preselector and visual control of the operation by means of a glass. The liquid suction and impulsion can be carried out by a single reversible pump or by two pumps, depending on the specific features of each installation.

Among all their functions, they have a security timer to avoid wrong dosages and overdosages and the possibility to work either manually, with the preselector, or connected to the computer system of the plant.

Working manually

This operation can be selected simply by a two-way switch placed in the back side of the device. With this switch in the manual position we can select the quantity to dose with the preselector, just pressing the numbers according to the quantity required.



After that we click the start and the dosage initiates with the liquid suction from the tank, filling the control glass until the two numbers in the little screen of the device match. Then the charge sequence finishes and three seconds after starts automatically the discharge of the liquid to the mixer of the plant.



Working with computer

In this case and with the switch in the PC position, the preselector stops itself from counting and the control pass directly to the computer of the plant, which commands the charge and discharge orders of the dispenser.

Applications

It is perfect for any industry that requires flowmeters for the admixtures by batches or pulses, manually or by computer.

It is suitable for all kinds of liquid, conductive on not, corrosive or non-corrosive, even for those that tend to make foam or viscosities. We can use whichever pump, joints, connectors or hose to guarantee that the installation is going to work properly.

LUSITRONIC



Digital volumetric dispenser

The Lusitronic are digital volumetric dispensers with impulse transmitter, dosage preselector and the possibility to work with or without control glass to check the operation visually. The liquid suction and impulsion can be carried out by a single reversible pump or by two pumps, depending on the specific features of each installation.

These equipments have several security timers to avoid wrong dosages and overdosages, diverse programs to save preselected dosages and the option to work either manually, with the preselector, or connected to the computer system of the plant. They have also the capacity to work with more different flowmeters than the more basic dosifiers.



Warnings

They include more and different security timers than the others control panels, up to 9. They are the next:

ALARM 1: Power failure. It indicates a breakdown of the electrical grid.

ALARM 2: No pulses are detected during the dosage.

ALARM 3: The glass is not being filled. The lowest level sensor is not activated after a while.

ALARM 4: The glass has been filled over the maximum. The highest level sensor has been activated.

ALARM 5: The time to fill the glass has exceeded over the limit.

ALARM 6: The glass does not empty.

ALARM 7: Empty tank: The actual level of the tank is less than or equal to the level preselected.

ALARM 8: Empty tank start. It goes off in PC mode when a dosage is started with the level under the minimum preselected.

ALARM 9: It goes off when the selected quantity is more than the maximal capacity of the glass.

But the Lusitronic have also a tenth alarm, which is the possibility to connect any of the alarms to a remote visual or light warning which is going to work when any of the others alarms goes off.

Data on screen

During all the dosage sequence the screen shows different data with relevant information about the operation in process, such as the pending volume to dose, the quantity already dosed, number of program or the alarm if it is the case.



ADS 4.0

To control and command one or two systems

Displayed in a hermetic case, the ADS is a two products doser.

A new generation logic controller allows to manage the two systems, each one with its pumping system, a flow meter pulse transmitter and a control glass if it is required.

Its software is specially developed for these applications, with every function required for a volumetric dosing.

Very simple to use, thanks to its 3.5 inch color touchscreen, dosing preselector, instant average glow rate display and several posiblities which are highly appreciated factors for the dosing and metering systems.

All the assembly is protected by a polyethylene box against external agents.

Feautures:

- Power suply three-phase 380 V or single-phase 230 V.
- Security given by times monitoring, lack of impulse, etc
- Postponed start input.
- End of cycle beep.
- Remote alarm.
- Consumption totalizator.
- Redosing delay cancellation.
- With or without control glass mode.
- Manual, local or PC working.
- Multilingual: French, English and Spanish.
- Models to place on a desk or on a wall.





Options (depending on the model):

- Dosing and defaults MicroSD recording.
- Dosing and defaults ticket printing.
- Dosing double control with a second flow meter.





Liquid dispenser by weight

The Pesamat are liquid dispensers by weight, instead of by volume, for one or several additives. They are the highest presision and reliability in dosage and control for the reason that weighing provides the most accurate and repeatable results. Used for dispensing desired quantity of additive, our machines are known for longer service life and outstanding performance.

These equipments work with load cells which weight the liquid and send the information to a microprocessor which automates totally the process transmitting the information to the computer system of the plant.





The liquids are carried out from the tank and driven to the mixture, after being wheighed, by pumps, which can be whichever the customer prefers, centrifugal, pneumatic or gear pumps.

They can be used to weigh one or several additives, depending on the quantity of control glasses assembled to the equipment and, providing the capacity of these, we would recomend to set up a reversible pumping system or a double filling-emptying system for each one.

Everything is protected against external agents by polyethylene boxes and cabinets.



Volumetric and weighing dispenser

The BIC equipment allows to the customer either to count the liquid through a flowmeter, or to weigh it by means of a load cell, according to the user requirements. The device has been thought to work with just one liquid and to choose between volumetric or weighing dispenser before the dosage.

On the control pannel we are going to have several instruments. Two digital screens, one for the weighing machine and the other for the volumetric dispenser. With a switch it can be selected which one is going to work, before the dosage. If the selected is the weighing machine, then the screen working will be the weigh one and the equipment will start to weigh the liquid.



On the contrary, if the chosen one is the flowmeter, it is going to work its screen and the equipment is going to meter the liquid through the flowmeter.

Once the corresponding screen turns on, the preselection can be made, either in kilos or in liters.

The charge and discharge of the liquid is done by a double pumping system assembled with any kind of pumps the customer would prefer, gear pumps, centrifugal or pneumatic, depending on the conditions and specifications of the liquid to dose. As well as the control glass, which material depends also on the liquid particularities. They can be made of PVC, methacrylate or glass and their capacity may vary between different quantities. The pumps and the material and capacity of the glass must be clearly defined by the customer.

Among all its advantages we can point up the accuracy of its measurements, the ease of use, quick and easy cleaning and quick access to all its components due to its modular design.

DISPENSER-CONTAINERS



The complete solution

This project presents a complete dosing system for the additives in a single container which storages and supplies up to 16,000 liters. The additive is dosed by a pump equipment from four storage tanks. Each storage tank is made in high density polyethylene and can contain up to 4,000 liters.

The technical specifications of the dosing pump will be defined according to the properties of the additive.

Every tank includes also an agitator to remove periodically the additive (according to temporary parameters established). Therefore the properties of the additive will be remained.



The container has a spill containment feature which may contain up to 4,000 liters, to prevent any possible leakage from the tanks or hoses. This receptacle is integrated under the container, above ground level, to collect any possible spill. The tank will be manufactured at a sufficient height to store up to those 4000 liters. The floor of the container will be, then, a galvanized grid.

The steel roofing, the steel walls and lining steel sheet (corrugated) will be galvanized too.

An electrical panel is included to control the automation of the whole installation.

All the final details and specifications should be clearly defined by the customer to develop and complete the whole project.



CENTRIFUGAL PUMPS

Centrifugal pumps pumping system Reversible equipment

Working principle

The centrifugal pumps are used to produce flow or raise pressure to a liquid. Their working principle is simple. At the heart of the system lies the impeller. It has a series of curved vanes fitted inside the shroud plates. The impeller is always immersed in the liquid. When the impeller starts to rotate, it makes the fluid surrounding it also rotate. This gives centrifugal force to the liquid particles, and it moves radially out.

Since the rotational mechanical energy is transferred to the fluid, at the discharge side of the impeller, both the pressure and kinetic energy of the liquid rise. At the suction side, the fluid is getting displaced, so a negative pressure will be induced at the eye. Such a low pressure helps to suck a fresh liquid stream into the system again, and this process continues.



Description and operation

This group consists of one single centrifugal pump. This pump receives the additive from a tank and drives it to a measuring glass. Then the pump draws the additive from the measuring glass and drives it to the concrete mixture.

The assembly has an electrically operated valve and one pressure regulator filter in order to control the flow of the additive at the entrance. At the outlet pipe this flow is controlled by a flow meter. Moreover, it's supplied with three check valves in order to prevent the backflow.

Operating data

| Voltage [V] | f [Hz] | rpm | Power [kW] | Power [HP] | Flow (1m – 10m) [l/min] | ρ _{fluid} [kg/m ³] | v _{at 40°C} [cSt] | T _{fluid} [°C] | H _{max} [m] |
|-------------|--------|------|------------|------------|----------------------------|---|----------------------------|-------------------------|----------------------|
| 380 - 415 | 50 | 1400 | 0,44 | 0,6 | 53 - 16 | 1100 | 90 - 110 | -15 - 90 | 13 |
| 380 - 415 | 50 | 2800 | 1,49 | 2 | 97 - 50 | 1100 | 90 - 110 | -15 - 90 | 48 |





CENTRIFUGAL PUMPS



Centrifugal pumps pumping system Filling and emptying equipment

Description and operation

This equipment controls the dosing of the additive for the concrete emission. It is equipped with two centrifugal pumps.



The filling pump receives the additive from a tank and drives it to the measuring glass. The emptying pump draws the additive from the measuring glass and drives it to the concrete mixture.

The filling assembly has an electrically operated valve and one pressure regulator filter in order to control the flow of the additive at the entrance. Through the outlet pipe this flow is controlled by a flow meter.

Everything is integrated within a polyethylene box to protect it against external agents.









GEAR PUMPS

Gear pumps pumping system Reversible equipment

Working principle

A gear pump produces flow by carrying fluid in between the teeth of two meshing gears. One gear is driven by the drive shaft and turns the idler gear. The chambers formed between adjacent gear teeth are enclosed by the pump housing and side plates (also called wear or pressure plates).

A partial vacuum is created at the pump inlet as the gear teeth unmesh. Fluid flows in to fill the space and is carried around the outside of the gears. As the teeth mesh again at the outlet end, the fluid is forced out.

Description and operation

This equipment receives the additive from a tank and drives it to a measuring glass, then the pump draws the additive from the measuring glass and drives it to the concrete admixture. The assembly has a pressure controlled valve operated by a solenoid valve and a filter preasure regulator to control the flow of the additive at the inlet. Through the outlet pipe this flow is controlled by a flow meter.

Moreover, it's equipped with three check valves in order to prevent the backflow.

Everything is integrated within a polyethylene box to protect it against external agents.

Operating data

| Voltage | f [Hz] | rpm (motor) | rpm _{max} (pump) | Power [kW] | Power [HP] | Flow 1500 rpm [I/min] | P _{max} [bar] | v _{at 40℃} [cSt] | T _{fluid} [°C] |
|-----------|--------|----------------|------------------------------|------------|------------|--------------------------|------------------------|---------------------------|-------------------------|
| 220 / 380 | 50 | 1360 | 6000 | 0,37 | 0,5 | 1,5 | 275 | 32 - 46 | -20 - 80 |
| 220 / 380 | 50 | 1360 | 6000 | 0,37 | 0,5 | 3 | 275 | 32 - 46 | -20 - 80 |
| 220 / 380 | 50 | 1360 | 6000 | 0,37 | 0,5 | 6 | 275 | 32 - 46 | -20 - 80 |
| 230 / 400 | 50 | 1430 | 6000 | 0,75 | 1 | 6 | 275 | 32 - 46 | -20 - 80 |
| 220 / 380 | 50 | 1360 | 4000 | 0,37 | 0,5 | 9 | 275 | 32 - 46 | -20 - 80 |
| 230 / 400 | 50 | 1430 | 4000 | 0,75 | 1 | 9 | 275 | 32 - 46 | -20 - 80 |
| 230 / 400 | 50 | 1430 | 4000 | 0,75 | 1 | 12 | 275 | 32 - 46 | -20 - 80 |
| 230 / 400 | 50 | 1430 | 3200 | 0,75 | 1 | 27 | 225 | 32 - 46 | -20 - 80 |
| 230/400 | 50 | 1430 | 3000 | 15 | 2 | 35 | 180 | 32 - 46 | -20 - 80 |





GEAR PUMPS



Gear pumps pumping system Filling and emptying equipment

Description and Operation

The filling equipment receives the additive from a tank and drives it to the measuring glass. It has a pressure controlled valve operated by a solenoid valve and a filter preasure regulator to control the flow of the additive at the inlet. Through the outlet pipe this flow is controlled by a flow meter.

All the group is integrated into a polyethylene box to protect it against external agents.





This emptying equipment receives the additive from the measuring glass and drives it to the concrete admixture. A check valve is installed on the outlet duct in order to prevent the backflow.

Everything is integrated into a polyethylene box to protect it against external agents.















DIAPHRAGM PUMPS

1/2" Non-metallic diaphragm pumps

Working principle

A diaphragm pump is a positive displacement pump that uses a combination of the reciprocating action of rubber, thermoplastic or teflon diaphragm and suitable valves on either side of the diaphragm (check valve, butterfly valves, flap valves, or any other form of shut-off valves) to pump a fluid.

When the volume of a chamber of the pump is increased (the diaphragm moving up), the pressure decreases, and fluid is drawn into the chamber. When the chamber pressure later increases from decreased volume (the diaphragm moving down), the fluid previously drawn in is forced out. Finally, the diaphragm moving up once again draws fluid into the chamber, completing the cycle. This action is similar to that of the cylinder in an internal combustion engine. Diaphragm Pumps deliver a hermetic seal between the drive mechanism and the compression chamber, allowing the pump to transfer, compress, and evacuate the medium without a lubricant.

Working description

Air operated double diaphragm pumps utilize a pressure differential in the air chambers to alternately create suction and a positive fluid pressure in the fluid chambers, ball checks insure a positive flow of fluid.

Pump cycling will begin as air pressure is applied and will continue to pump and keep up with the demand. It will build and maintain line pressure and will stop cycling once maximum line pressure is reached (dispensing device closed) and will resume pumping as needed.

U-Ma





DIAPHRAGM PUMPS



1" Diaphragm pumps



Description and Operation

The control panel gives the order to start the filling procedure, opening the filling solenoid valve. This valve starts up the filling pump and opens the GSR valve.

The liquid pass through the flowmeter, which starts to count, and goes to the control glass, which is filled up to the preselected point. At that moment the signal is given and the pump cease to draw out the liquid.

Immediately after the emptying solenoid valve starts up the emptying pump, which draw out the liquid from the glass and throw it wherever is required.

| Air Inlet Pressure Range | Maximum Flow Rate | Maximum Particle Size | T _{fluid} |
|-------------------------------|-------------------|-----------------------|--------------------|
| 20 - 120 p.s.i. (1 - 8,3 bar) | 133 lts/min | 3,2 mm | -40° C - 107° C |

Dimensions

| Α | 217 5 mm | G | 318 mm |
|---|----------|---|--------|
| В | 294 mm | н | 159 mm |
| C | 102 mm | J | 186 mm |
| D | 32 mm | к | 10 mm |
| E | 165 mm | L | 1″ |
| F | 203 mm | м | 1/4" |







PISTON-DRIVEN PUMPS

For a low-cost dosage of liquids



Working principle

These are piston-driven pumps with alternating motion. The flow rate is adjustable even in motion and modifies the piston displacement. The variation is linear and adjustable from 0% to 100%. They work manually through a handle with direct reading of the stroke and the flow proportion.

The mechanism is composed by a reduction gear, a crown gear and a screw conveyor. An off-center with running wheels causes the movement of a glide placed on the piston.

The piston comes back to their initial position by an oiled mould within an aluminum crankcase.

The heads of the pumps are composed by ball-valves, with easy access, and automatic Viton joints.

The pumps and gear are assembled with an elastic coupling.

| Model | Flow rate | Max.pressure (PVC pump) | Max.pressure (stainless steel) | Ø Piston | Displacement | Connections | Power | Pulses per minute |
|---------|------------------|----------------------------|-----------------------------------|------------|--------------|--------------|---------|-------------------|
| IR 13 | 1,2 – 155 lts/h | 5,5 – 10 bar | 5,5— 20 bar | 6 – 48 mm | 12,5 mm | 1/2″ | 0,25 HP | 58-96-116 |
| IRAP 13 | 1,9 – 5,6 lts/h | | 50 – 95 bar | 8 – 16 mm | 12,5 mm | 1/2" | 0,25 HP | 58-96-116 |
| IR 18 | 72 – 408 lts/h | 5,5 – 10 bar | 4,5 – 20 bar | 30 – 64 mm | 17,5 mm | 1/2" - 3/4" | 0,33 HP | 70 - 96 - 120 |
| IRP 18 | 115 – 408 lts/h | | 6,5–19,5 bar | 38 – 64 mm | 17,5 mm | 1/2" - 3/4" | 0,5 HP | 70 - 96 - 120 |
| IRAP 18 | 3,3 – 28,6 lts/h | . 🖈 | 100 – 245 bar | 8 – 18 mm | 17,5 mm | 1/2″ | o,5 HP | 58-96-116 |
| IR 25 | 164 – 1042 lts/h | 4,8 – 10 bar | 4,8 — 20 bar | 38 – 89 mm | 25 mm | 1/2"-3/4"-1" | 0,75 HP | 56 - 96 - 112 |
| IRP 25 | 192 – 1042 lts/h | - | 6 – 34 bar | 38 – 89 mm | 25 mm | 1/2"-3/4"-1" | 1 HP | 112 |
| IR 35 | 459 – 1458 lts/h | - | 4,5 – 13 bar | 54 – 89 mm | 35 mm | 1"-1½" | 1 HP | 96 - 112 |

TURBINE FLOW METER



Features

- Works with virtually any type of automated control system.
- High accuracy.
- Dry contact electrical output.
- Corrosion resistant plastic and metal components.



- Applications
- Automated irrigation systems.
- Automated industrial applications using corrosive liquids.

Operating Data

| Connection | T [°C] | Flowmin-max [l/h] | Max. Operating Pressure |
|------------|----------|-------------------|-------------------------|
| 3⁄4" | up to 50 | 60 - 750 | 5 bar |

Electrical Output Data

- Pulses per unit: 0,1 lit, 0,25 lit, 1 lit, 10 lit.
- Vmax [V]: 28 DC
- Imax [A]: 50 mA
- Cable length: 1500 mm

Description • Small meter, which is resistant to the most chemical liquids.

• Transmits electrical data automated control systems.

• Contains a smaller measuring chamber and a magnetic proximity switch made of synthetic polymers and metals capable of withstanding all chemical materials currently in common use.

Dimensions







NUTATING DISC FLOW METER

Features

- Positive displacement meter.
- Magnetic coupling.
- Wide flow range.
- The meter chamber includes disc, positioning bar and transmission magnet.
- Low pressure loss and low weight.
- Easily maintained without removing from line.
- Durable components for minimal maintenance.
- Wide range of compatible accessories.

Typical applications

- Compatible with many liquids.
- Clean and moderately dirty liquids.
- Hard and soft water, oils, fuel and solvents.

Operating Data

| Connection | т [°С] | Flow [l/min] | v [cSt] | Accuracy (1:10) |
|------------|--------|--------------|---------|-----------------|
| 3⁄4" | 50 | 1 - 100 | 700 | ± 0,5% |

- Nominal Pressure (PN): 16 bar
- Max. Operating Pressure: 150 psi

Working principle

The metering principle, known as positive displacement, is based on the continuous filling and discharging of the measuring chamber. Controlled clearances between the disc and the chamber provide precise measurement of each volume cycle. As the disc nutates, the center spindle rotates a magnet. The movement of the magnet is sensed through the meter wall by a follower magnet or by various sensors. Each revolution of the magnet is equivalent to a fixed volume of fluid, which is converted to any engineering unit of measure for totalization, indication or process control.



Liquid flowing through the meter chamber (A) causes a disc (B) to nutate or wobble. This motion, in turn, results in the rotation of a spindle (C) and drive magnet (D). Rotation is transmitted through the wall of the meter to a second magnet (E) or varied style of sensor pickup.

ROTARY PISTON FLOW METER



Features and benefits

- Long-lasting high accuracy
- High efficiency
- Any installation position
- Permanent readability
- Enhanced robustness
- Pre-equipped for communication
- Compact
- Easy handling



The technology

The working principle of this flowmeter is based on the combination of an extra dry register (no gears in the liquid), associated with a hermetical measuring element, using the concept of magnetic transmission.

Operating Data

| Connection | P _{máx adm} [bar] | Operating T [°C] | Q _{max} [l/min] | Accuracy (±5%) | |
|------------|----------------------------|---------------------|--------------------------|----------------|--|
| 3⁄4" | 16 | 0,1 - 30 | 52,1 | 3 | |

| Α | 105/110 | | |
|---|---------|--|--|
| в | 115 | | |
| С | 22 | | |
| D | 85 | | |
| E | 68 | | |
| F | 158 | | |





MAGNETIC-INDUCTIVE

Features

This unit monitors liquids. It detects three processes at once: volumetric flow, consumed quantity and medium temperature. The unit displays the current process values according to the settings selection.



Application area

Conductive liquids with the following properties:

- Conductivity: \geq 20 µS/cm
- Viscosity: < 70 mm²/s at 40 °C
- Pressure rating: 16 bar
- Medium temperature: -10°C...70°C

| Model | 6000 | 7000 | 8000 | 9000 | 2000 | | |
|-----------------------------|--|---------------|----------------------|--------------|--------------|--|--|
| Flow Measuring range | 0,1025 lts/min | 0,250 lts/min | 0,2100 lts/min | 5300 lts/min | 5600 lts/min | | |
| Resolution | 0,05 lts/min | 0,1 lts/min | 0,1 lts/min | 0,5 lts/min | 0,5 lts/min | | |
| Temperature measuring range | | | -2080°C | | | | |
| In steps of | 0,2°C | | | | | | |
| Flow monitoring accuracy | ±2% | ±2% | ±2% | ±8% | ±8% | | |
| Connections | G1/2" | G3/4" | G1″ | G2" | G2″ | | |
| Housing materials | Stainless steel; PBT-GF 20; FKM; TPE; PC | | | | | | |
| Weight | 0,538 kgs | 0,576 kgs | 0,631 kgs | 3,121 kgs | 3,071 kgs | | |
| Electrical connection | | M12 conn | ector, gold-plated c | ontacts | | | |

Working principle

The liquid flows through a magnetic field. The magnetic-inductive flowmeter requires a conducting fluid, for example, water that contains ions. It generates a signal voltage which is directly proportional to the volumetric flow. In addition to the flow velocity, the unit also detects the flow direction. The positive flow direction is marked on the unit by an arrow. Only positive process values are processed for the signal output.

The unit has an internal quantity meter which continuously totals the volumetric flow. The sum corresponds to the current consumed quantity since the last reset. The current meter count can be indicated and, in addition, the value before the last reset is stored. This value can also be indicated.

WOLTMANN FLOW METER



Special features

- Unique measuring range
- High overload capacity
- Unlimited fitting position
- Used materials are temperature resistant up to 70° C
- Use of optical pulsers type OD is possible
- Compact



Applications

- Measurement for billing of cold potable water
- Measurement of high flow rates
- Measurement of low flow rates
- For leakage control

Operating data and dimensions

| Nominal Diameter | DN40 (1"1/2) | DN50 (2") | DN65 (2" ½) | DN80 (3") | DN100 (4") | DN125 (5") | DN150 (6") | | |
|---------------------|--------------|-------------------------------|-------------|-----------|--------------|------------|------------|--|--|
| Maximal temperature | | A. | | 70°C | | | | | |
| Maximum flow | 55 m³/h | 60 m³/h | 70 m³/h | 150 m³/h | 240 m³/h | 260 m³/h | 450 m³/h | | |
| Body | | Corrosion resistant cast iron | | | | | | | |
| Weight | 7,5 kgs | 7,8 kgs | 10,1 kgs | 13,8 kgs | 18,2 kgs | 20,7 kgs | 44,2 kgs | | |
| L | 200 mm | | 220 mm | 250 mm | | | 300 mm | | |
| н | | 120 mm | 150 | | 50 mm 160 mm | | 177 mm | | |
| h | 69 mm | 73 mm | 85 mm | 95 mm | 105 mm | 118 mm | 135 mm | | |



Dial





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