Accessories

KIT

The electronic controller "KIT" orders the automatic start and stop of the water pump when opening or closing any tap or valve in the installation. There are four main models called as "KIT" and they are decided to use according to pump model, motor power, flow & pressure requirement and also pump outlet.

KIT MODELS

Hidrosmart 1,5/2,2
Idromat 1,5/2,2/2,7
Hidromat 1 (1,5~3)

- Automatic pressure unit
- Assembled on a pump for automatic water supply and reduce the water hammer
- Compact design
- Quiet running operation
- Free of maintenance without preload of air
- For pumps with delivery up to 8 m^3/h
- Maximum working pressure 7,5 bar
- Maximum liquid temperature 60°C
- Protection Grade: IP54
- Frequency: 50 Hz
- Starting pressure:
  - 1,5/2,2/2,7 Bar constant pressure (for non-adjustable models)
  - 1,5 ~ 3 Bar (for adjustable models)
- Non-returning valve built-in, pressure gauge, pressure switch and electronic control with dry running function integrated and manual reset button.

Accessories

IDROMAT

The electronic controller "Idromat" orders the automatic start and stop of the water pump when opening or closing any tap or valve in the installation.

When the water pumps starts, it keeps running while exists only tap opened in the system, giving a constant flow and pressure to the network.

For this function, Idromat has a special sensor whose task consists on keeping the pump connected while it exists a minimum consumption of 0,8 liters/min.

Idromat includes the following items:
- Switch for manual pump starter
- Specific non-return valve which avoids surges
- Security systems to avoid the pump with no water running
- Pressure gauge

TECHNICAL SPECIFICATIONS

- Power: 1,1 kW (220-240V); 0,75 kW (110-120V)
- Power supply: 220-240V (110-120V optional)
- Maximum current: 10A
- Frequency: 50/60 Hz
- Protection Grade: IP54
- Maximum flow: 10,000 l/h
- Starting Pressure
  - Idromat 1,5: 1,5 Bar
  - Idromat 2,2: 2,2 Bar
  - Idromat 2,7: 2,7 Bar
- Connection
  - Inlet male threaded: G 1"
  - Outlet female threaded: G 1"
  - Max working pressure: 10 Bar
  - Max liquid temperature: 60°C

STARTING

Perform as follows:
1. Ensure that the pump in correctly primed, then gently open one tap
2. Connect the Idromat to electric supply
3. The unit will start automatically in 2 seconds at the first time it is connected the power supply and within 20-25 seconds the pressure gauge will reach the maximum pressure the pump allows.
4. When the tap (which was opened previously) is closed, the pump will stop about 10 seconds later. The unit can start immediately if any of the taps is opened for water consumption. When no water consumption is needed the unit can stop automatically by closing the tap.

WARNING

Idromat 1,5
The water column between the pump and the using highest point cannot exceed 15 m; the pump must work with a minimum pressure of 2 bars.

Idromat 2,2
The water column between the pump and the using highest point cannot exceed 22 m; the pump must work with a minimum pressure of 3 bars.

Idromat 2,7
The water column between the pump and the using highest point cannot exceed 27 m; the pump must work with a minimum pressure of 3,5 bars.

AUTO-RESTART AND DRY RUNNING PROTECTION

When breakdowns occur, such as water failure, obstruction of the suction pipe etc, ..., the unit can prevent damages caused by its working in the absence of water. When there is no water supply in the system; the water pump will stop automatically after 20 seconds running. The water pump runs automatically for 40 sec after stopping for 10 seconds and checks the water supply. If there is still no water supply, the water pump will stop automatically and turn to the dry running protection status. After 24 hours, the pump will start automatically and repeat the above procedures every 24 hours for water supply detection after dry-running protection.

During stopping the pump, the water pump will start automatically if the flow through the controller is more than starting flow.

The system can be activated any time by pressing the manual reset key.

Accessories

HIDROMAT-1

AUTOMATIC CONTROL FOR WATER PUMP

- Input Voltage: 230V
- Frequency: 50/60 Hz
- Power: 2,2 kW
- Maximum Current: 30A
- Maximum Operating Pressure: 10 Bar
- Maximum Liquid Temperature: 60°C
- Protection Grade: IP65
- Connection Inlet and Outlet male threaded G 1 ¼"
- Starting Pressure: 1,5 Bar-3 Bar (*Adjustable)

- Normally pressure produced by the pump must be 1 bar (1,5 bar recommended) higher than the pump controller's pre-set pressure that is checking on the effective pressure of pump and system water column height must be according to the pre-set value.

The pump controller's starting pressure adjustable from 1,5 bar to 3 bar as customer's require. To set the pump's pressure please reference the follows sheets.

Starting Pressure	Pump's Pressure	The Height of Water Column (H)
1,5 Bar (0,15 mPa)	>= 3,0 Bar (0,30 mPa)	<=15m
2,0 Bar (0,20 mPa)	>= 3,5 Bar (0,35 mPa)	<=20m
3,0 Bar (0,30 mPa)	>= 4,5 Bar (0,45 mPa)	<=30m

- The pump can be blocked or continues to operate without stop if its pressure is lower than stated minimum pressure. On the other hand, the pump will not work if the height of the water column exceeds above standards.
- A pressure reducing valve must be installed on the inlet of the pump controller if pumps' pressure exceeds 10 bar.
- No taps can be installed between the pump and the pump controller.
- Safety valve is installed inside the controller to prevent water emission in case of diaphragm breaks.

FUNCTION

The pump controller is programmed to start and stop the pump operations automatically.

Its feature of water-shortage protection can protect the pump from being damaged during dry running. Also it has a built-in delayed auto-start timer which attempts to restart pump everyday 1 hour, 5 hours and 24 hours for a period of 4 minutes after dry running protection till 24 hours when if there is still no water in the pipe, the whole program will repeat every 24 hours.

Rectification of the failures that have caused the blockage allows the system to be restarted by pressing the "restart" button for more than 2 seconds.

The pump controller's standard starting pressure default settings as 1,5 bar, when customer want to set a new pressure, they can adjust the starting pressure by the adjustable cap, deasil revolve the adjustable to increase the starting pressure (Keep button "restart" pressed can stop the pump during its operation and resume its work after stopping).

STARTING

When the pump control is connected to the electrical network, the green led "power on" lights up and the yellow led "on" (pump in operation) lights 2-4 seconds later indicating that the pump has been started. The pump continuous to operate for 8 seconds enabling the system to fill in the pipes and to reach the required pressure.

If this lapse is insufficient, the red led "failure" lights up. In this event, keep the "restart" button pressed and wait with a tap opened until the red led is off. Once the button is released and the tap is closed, the control stops the pump at its max pressure.

Note: If the water consumption is more than 0,6 l/min the pump will be operate continuously.

Accessories

HIDROSMART

- Input voltage: 220-240V
- Frequency: 50/60 Hz
- Power: 1,1 kW
- Maximum Current: 10A
- Maximum Operating Pressure: 10 Bar
- Maximum Liquid Temperature: 60 °C
- Protection Grade: IP65
- Connection: Inlet and outlet male threaded G 1"
- Starting Pressure
  - Hidrosmart 1,5: 1,5 Bar
  - Hidrosmart 2,2: 2,2 Bar

- The unit can be installed directly on the pump, or between the pump and the first tap.
- The unit is equipped with a check valve to prevent the pipeline from losing pressure.
- The unit is pre-set by the manufacturer at a restarting pressure of 1,5 and 2,2 bar. The pressure produced by the pump must be normally 0,8 bar higher than the pre-set pressure.
- If the column of water between the pump and the highest tap exceeds 22 m, the unit cannot be installed directly on the pump, but it has to be raised until the column of water between the unit and the highest tap does not exceed 22 m (for Hidrosmart 2,2) IE. If column of water is 27 m from the pump, the unit must be placed 5 m higher than the pump.
- If the water consumption is more than 0,6 l/min the pump will be operate continuously.

STARTING

- When the unit is connected to the electrical network, the green led "Power On" lights up and the yellow led "On" (pump in operation) indicates that the pump has been started.
- The pump continues to operate for dozens of seconds enabling the system to fill in the pipes and to reach the required pressure.
- If this lapse is insufficient, the red led "Failure" lights up. In this event, keep the "Restart" button pressed and wait, with a tap opened, until the red led is off.
- Once released the button and closed the tap, the unit stops the pump as.
- Its maximum pressure.

FUNCTIONING

The starting operation archived, the unit is programmed to perform all the pump control operations automatically.

When particular operational breakdowns occur, such as water failure, obstruction of the suction pipe, etc. the unit recognizes the breakdown and the red led "Failure" lights up; at the same time a stop signal is sent to the pump to prevent damages caused by its working in the absence of water.

Rectification of the failures that have caused the blockage, allows the system to be restarted by pressing the "Restart" button.

Accessories

BSK

WATER PUMP PRESSURE CONTROL

BSK Series water pump pressure control is suitable for ordering start and stop of all kinds of water pumps by means of pressure variance in the pipeline system. When pressure inside the pipeline system reaches the upper limit the pressure control will automatically cut off the power and stops the pump. When pressure inside the pipeline system drops till the lower limit, the controllers will automatically connect the power and the pump starts working. The whole cycle of controlling is a full-automatic one and no-more personal attention will be needed.

- Rated Voltage: 220 V
- Rated Frequency: 50 Hz
- Rated Current: 12 A
- Rated Power: 2 HP
- Maximum Liquid Temperature: 60 °C
- 0,5 m H05RN-F cable to the pump
- 1,5 m H05RN-F cable to plug
- General Settings
  - 1,4 / 2,8 bar
  - 2,1 / 3,5 bar
  - 2,8 / 4,2 bar

The choice of the exact model of BSK series water pump pressure control depends on the related power consumption of the pump and its lift and height. Usually the cut off pressure for controller is 0,5 bar lower than the pressure in related to the maximum lift and cut-in pressure is 0,5 bar higher than the pressure that is produced by the minimum water column height between the system outlet (tap) and the pump itself.

Accessories

IDRODRIVE

The electronic controller "Idrodrive" orders the automatic start and stop of the water pump when opening or closing any tap or valve in the installation.

Idrodrive is completely silent and is designed to provide an automatic supply of clean water to one or two dwellings.

It is designed to maintain constant pressure. It does not permit the pump to operate without water and avoids water hammering. It requires no preloading of air or adjustment. It has a water reserve to prevent the unit from being started by a dripping tap.

If water consumption is more than 1 lt/min the pump will operate continuously.

When the pump reaches maximum pressure the unit automatically switches the pump off. Unit selection must take into account the fact that the differential must be over 0,7 bars.

Idrodrive includes the following items:
- Switch for manual pump starter
- Specific non-return valve which avoids surges (built-in)
- Security systems to avoid the pump with no water running
- Pressure gauge

TECHNICAL SPECIFICATIONS

Power: 1,5 kW (220-240V) (Max input motor power (P1) should never exceed 1,8 kW
Max Current: 10 A
Max Flow: 10.000 lt/h
Starting Pressure: 1,5...3 Bar (Adjustable)
Connection: Inlet male threaded G1"
Outlet female threaded G1"
Frequency: 50/60 Hz
Protection Grade: IP54
Liquid Temperature: 4°C - 60°C

STARTING

The group starts after 10" connecting the controller to the electric supply. If the group supplies water as normal, the motor continues operating. If the pump has not been primed, after 10" an error is caused due to lack of water and the motor stops. To prime the pump need to press the RESET button. At the end of this operation if there is no water consumption "Idrodrive" will stop after 10" and will be stand by mode.

Lack of water fault and retries:
If the Idrodrive detects the pump is working without water it stops the motor. Idrodrive will attempt to start up again after 1', 5', 15' and 1 hour. If the retries fail, the Idrodrive will enter permanent fault mode. To interrupt the retry cycle or to restart from permanent fault mode, need to press the Reset button.

Minimum flow
When the flow supplied by the group is less than 1 lt/min, the normal motor stop occurs in 10". The group changes to "stand-by".

Adjusting the start-up pressure
The start-up pressure is adjusted using the screw located on top of the kit. Switch on a tap in the installation and read the pressure shown on the pressure gauge at the moment of starting.

Turn the adjusting screw in the desired direction. The start-up pressure should normally be set 0,2 bar over the static pressure of the installation above the kit.

Accessories

FSK

FLOAT SWITCH

The device connected to an electrical pump through an electrical cable, is used the auto-control and no-water protection of the water tower, water pool and storage tank.

- Rated Voltage: AC 250V
- Maximum Current: 10 (4) A
- Rated Frequency: 50/60 Hz
- Maximum Operating Temperature: 55 °C
- Protection Grade: IP68
- Cable Specification:
  - H05RNF 3x0,75 mm^2
  - H05RNF 3x1 mm^2 (standard)
  - H07RNF 3x0,75 mm^2
  - H07RNF 3x1 mm^2
- Emptying and filling, dual function

Standard Models:

- FSK with 5 m cable + counter weight
- FSK-0,5M with 0,5 m cable + counter weight
- FSK-1,5M with 1,5 m cable + counter weight
- FSK-3M with 3 m cable + counter weight
- FSK-10M with 10 m cable + counter weight

Accessories

EPIC

Features

EPIC - electronic pressure controller orders the water pumps the automatic start and stop when opening or closing any tap or valve in the installation.

EPIC is completely silent and is designed to provide an automatic supply of clean water, and can completely replace and outperform the pressure gauge, pressure switch on a pressure tank and/or the pressure control device.

It is designed to maintain constant pressure. It does not permit the pump to operate without water and avoids water hammering.

EPIC has built-in function of dry running protection, overload protection, digital display of actual pressure, and automatic re-start in case of water shortages. So, in an automatic package booster set; no need of pressure gauge, no need of float switch, and no need of using bigger volume expansion tank.

In compliance with the essential requirement of Directive 2014/53/EU.

Designation

3 different versions:

EPIC-BASIC : Simple, compact design. Factory set pressure values.

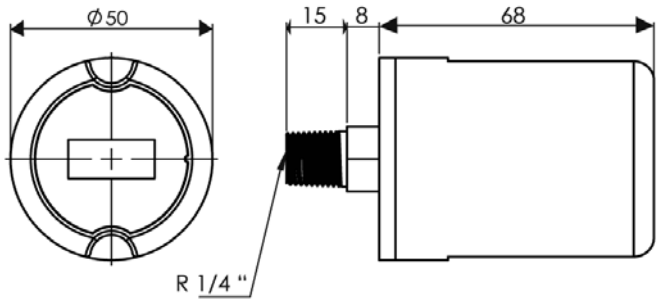
EPIC : Adjustable pressure values. Autonomous protection, and adjustable restart.

EPIC-PRO : Adjustable set values and protection parameters by means of Blue Tooth and Google App Connections.

EPIC

Electronic Pressure Controller

EPIC-BASIC



Unit:mm

EPIC-BASIC

- LCD screen with different backlit colors for the demostration of pump status.
- Stop Delayed: Prevention of overloading maximum start
- Dry running protection
- Automatic re-start in care of water shortage
- Able to work with three phase pumps with a contactor with required voltage to EPIC-BASIC

TECHNICAL DATA

Power Supply	115-220 Vac ±10% 50/60 hz
Pressure Connection	MALE ¼"
Port Material	POM
Enclosure Size	2"
Accuracy	±1% Tolerance
Overload Capacity	Tested to 1.5 x the rated pressure
Output of Relay	ON/OFF
Relay Capacity (Maximum Motor Size)	110 V up to 1 HP (0.75 kW) 220 V up to 2 HP (1.5 kW)
Maximum Current	12A
Sampling Rate	5 times/second
Working Temperature	-10°-65°C
Ingress Protection	IP54
Display Pressure Unit	BAR

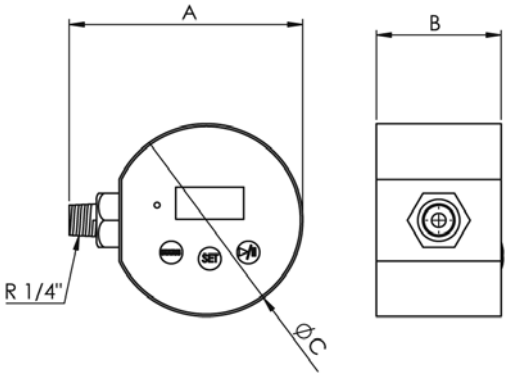
* All technical information are subject to change without notice

Model	EPIC-BASIC Operating Pressure		Δp (bar)
	P_{start} (bar)	P_{stop} (bar)	
EPIC-BASIC 2,0-2,6	2,0	2,6	0,6
EPIC-BASIC 2,0-3,0	2,0	3,0	1,0
EPIC-BASIC 2,5-3,4	2,5	3,4	0,9
EPIC-BASIC 3,0-4,2	3,0	4,2	1,2
EPIC-BASIC 3,2-4,4	3,2	4,4	1,2
EPIC-BASIC 3,5-5,0	3,5	5,0	1,5
EPIC-BASIC 4,0-5,3	4,0	5,3	1,3
EPIC-BASIC 4,8-6,3	4,8	6,3	1,5

EPIC

Electronic Pressure Controller

EPIC



EPIC

- 10/16/25 bar versions available.
- Outer diameter is 3", connection 10 bar version, for 16/25 bar connection parts.
- All time status display and LCD backlit.
- 3-colour LED lights for status showing.
- Maximum starts per hour limiting protection. So, protecting the pump from high frequent cycling per hour.
- Adjustable re-start delay time 0-90 minutes.
- Stop delay function.
- Automatic re-start in case of water shortage. Resupply the pressure when water is available.
- Automatic stop in case the maximum run time is exceeded.
- Permanent memory of settings, will not loose set values even loss of power.
- Able to work with three phase pumps with a contactor with required voltage to EPIC.

TECHNICAL DATA

Power Supply	115-220 Vac ±10% 50/60 hz
Pressure Connection	BSP ¼"
Accuracy	±1% Tolerance
Overload Capacity	Tested to 1.5 x the rated pressure
Output of Relay	ON/OFF
Relay Capacity (Maximum Motor Size)	110 V up to 1 HP (0.75 kW) 220 V up to 2 HP (1.5 kW)
Maximum Current	12A
Sampling Rate	5 times/second
Working Temperature	-10°-65°C
Ingress Protection	IP55
Display Pressure Unit	BAR-PSI-Kg/CM^2
Ph level	6-9

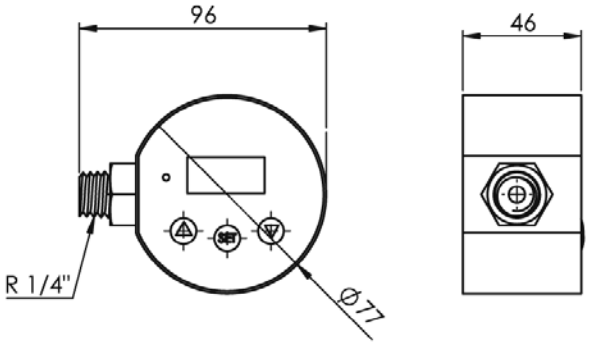
* All technical information are subject to change without notice

Dimensions (mm)			
Model	**A**	**B**	**C**
	96	77	46
	96	77	46
	96	77	46
	103	85	55

EPIC

Electronic Pressure Controller

EPIC-PRO



EPIC-PRO

- 10 bar versions available.
- Bluetooth connection and control by mobile phone with distance.
- All time status display and LCD backlit.
- 3-colour LED lights for status showing.
- Maximum starts per hour limiting protection. So, protecting the pump from high frequent cycling per hour.
- Lock-screen function to prevent non-user modifying parameters.
- Adjustable re-start delay time 0-90 minutes.
- Stop delay function.
- Automatic re-start in case of water shortage. Resupply the pressure when water is available.
- Automatic stop in case the maximum run time is exceeded.
- Permanent memory of settings, will not loose set values even loss of power.
- Able to work with three phase pumps with a contactor with required voltage to EPIC-PRO.

TECHNICAL DATA

Output Signal	4~20 mA
Pressure Connection	R ¼"
Resolution	0.1 psi/0.01 bar/0.01 kg/cm^2
Measuring Accuracy	±1% Tolerance (@22~28°C) ±2% Tolerance (@0~22 & 28~50°C)
Supply Voltage	10~30 Vdc
Readout (measuring) Range	1~10 bar / 1~16 bar / 1~25 bar
Burst Pressure	15 Bar
Response Time	40 ms
Ingress Protection	IP55
Pressure Port Materia	Nickel Brass
Housing Material	PC/ABS
Ambient Temperature Range	0~55°C
Storage & Medium Temperature Range	-10~65°C

* All technical information are subject to change without notice

Dimensions (mm)			
Model	**A**	**B**	**C**
	103	85	55

Manifold for Booster Units

APPLICATION:

* Booster Sets, Multi Pump Application, Hot and Cold Water Application

NOMINAL WORKING PRESSURE: 16 bar

MATERIAL: Stainless Steel AISI 304 (AISI 316 only on request)

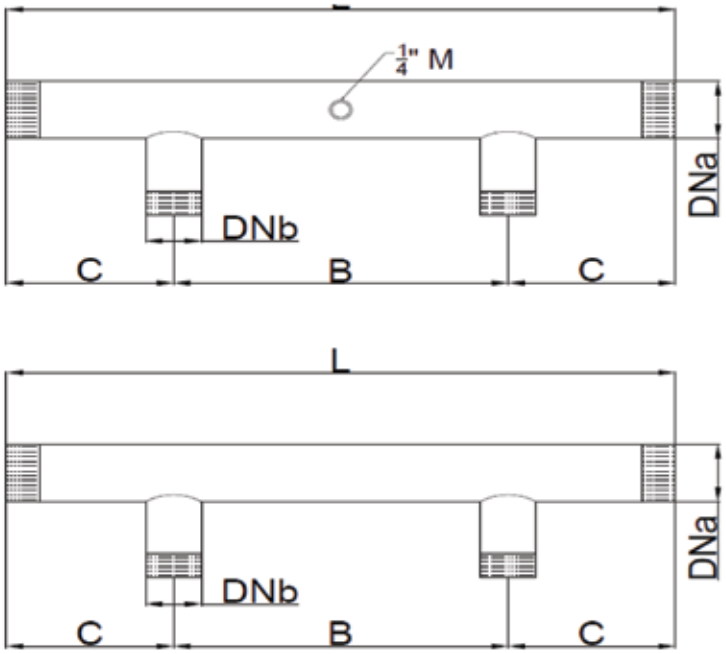
SURFACE TREATMENT: Degreasing, picling and electropolishing.

**** We can produce according to your special sizes and drawings,**

BMT 2-1"½ X 600 (2 X 1" X 300) - SS304

- Material of Manifold
- Distance between outlets, measured on center in mm
- Diameter of outlet
- Number of outlet
- Manifold Length
- Diameter of Manifold
- Number of Pumps
- Booster Manifold Threaded BMF: Flanged

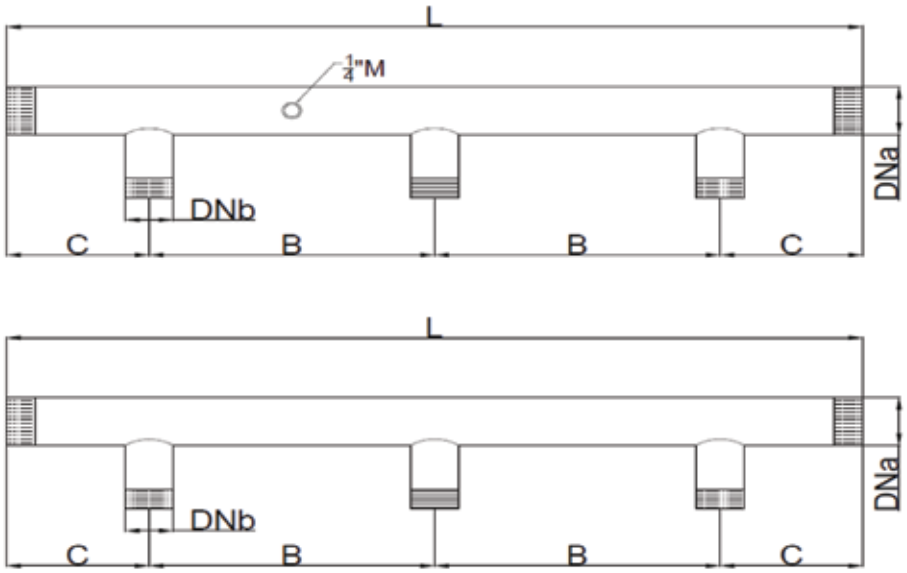
DIMENSIONS



2 PUMPS MODEL - SUCTION AND DELIVERY MANIFOLDS

MODEL	Dna	DNb	Dimensions in mm C	B	L
BMT2-1"1/2X600-(2X1"X300)-SS304	1"1/2	1"	150	300	600
BMT2-1"1/2X600-(2X1"1/4X300)-SS304	1"1/2	1"1/4	150	300	600
BMT2-2"X600-(2X1"X300)-SS304	2"	1"	150	300	600
BMT2-2"X600-(2X1"1/4X300)-SS304	2"	1"1/4	150	300	600
BMT2-2"X600-(2X1"1/2X300)-SS304	2"	1"1/2	150	300	600
BMT2-2"1/2X600-(2X1"1/2X300)-SS304	2"1/2	1"1/2	150	300	600
BMT2-2"1/2X600-(2X2"X300)-SS304	2"1/2	2"	150	300	600
BMT2-2"1/2X800-(2X1"1/2X400)-SS304	2"1/2	1"1/2	200	400	800
BMT2-2"1/2X800-(2X2"X400)-SS304	2"1/2	2"	200	400	800
BMT2-3"X600-(2X1"1/2X300)-SS304	3"	1"1/2	150	300	600
BMT2-3"X600-(2X2"X300)-SS304	3"	2"	150	300	600
BMT2-3"X800-(2X1"1/2X400)-SS304	3"	1"1/2	200	400	800
BMT2-3"X800-(2X2"X400)-SS304	3"	2"	200	400	800

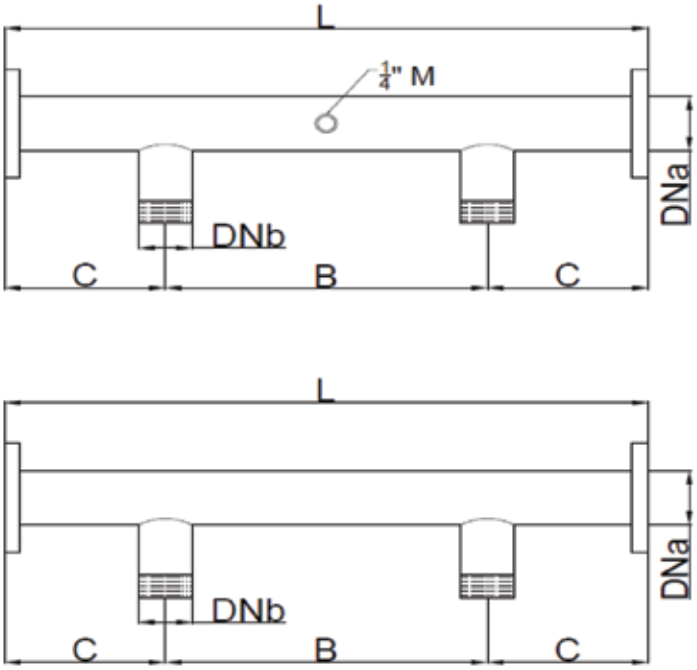
DIMENSIONS



3 PUMPS MODEL - SUCTION AND DELIVERY MANIFOLDS

MODEL	Dna	DNb	Dimensions in mm C	B	L
BMT3-1"1/2X900-(3X1"X300)-SS304	1"1/2	1"	150	300	900
BMT3-1"1/2X900-(3X1"1/4X300)-SS304	1"1/2	1"1/4	150	300	900
BMT3-2"X900-(3X1"X300)-SS304	2"	1"	150	300	900
BMT3-2"X900-(3X1"1/4X300)-SS304	2"	1"1/4	150	300	900
BMT3-2"X900-(3X1"1/2X300)-SS304	2"	1"1/2	150	300	900
BMT3-2"1/2X900-(3X1"1/2X300)-SS304	2"1/2	1"1/2	150	300	900
BMT3-2"1/2X900-(3X2"X300)-SS304	2"1/2	2"	150	300	900
BMT3-2"1/2X1200-(3X1"1/2X400)-SS304	2"1/2	1"1/2	200	400	1200
BMT3-2"1/2X1200-(3X2"X400)-SS304	2"1/2	2"	200	400	1200
BMT3-3"X900-(3X1"1/2X300)-SS304	3"	1"1/2	150	300	900
BMT3-3"X900-(3X2"X300)-SS304	3"	2"	150	300	900
BMT3-3"X1200-(3X1"1/2X400)-SS304	3"	1"1/2	200	400	1200
BMT3-3"X1200-(3X2"X400)-SS304	3"	2"	200	400	1200

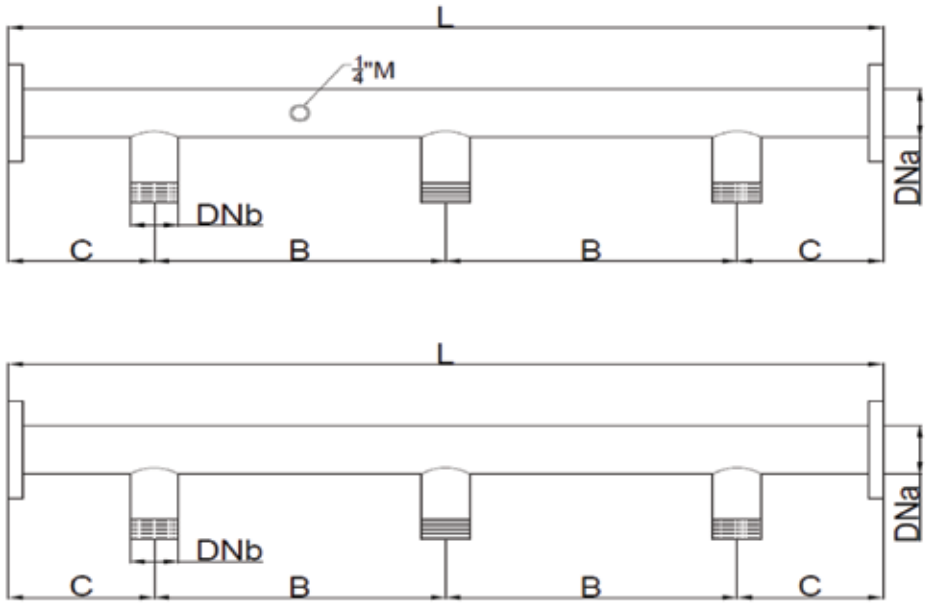
DIMENSIONS



2 PUMPS MODEL - SUCTION AND DELIVERY MANIFOLDS with FLANGED OUTLETS

MODEL	Dna	DNb	Dimensions in mm C	B	L
BMF2-DN100X800-(2X2"X400)-SS304	DN100	2"	200	400	800
BMF2-DN125X800-(2X2"X400)-SS304	DN125	2"	200	400	800
BMF2-DN125X800-(2X2"1/2X400)-SS304	DN125	2"1/2	200	400	800
BMF2-DN150X800-(2X2"1/2X400)-SS304	DN150	2"1/2	200	400	800
BMF2-DN150X800-(2X3"X400)-SS304	DN150	3"	200	400	800
BMF2-DN150X1000-(2X2"1/2X500)-SS304	DN150	2"1/2	250	500	1000
BMF2-DN150X1000-(2X3"1/2X500)-SS304	DN150	3"	250	500	1000
BMF2-DN200X1000-(2X3"X500)-SS304	DN200	3"	250	500	1000
BMF2-DN200X1000-(2XDN100X500)-SS304	DN200	DN100	250	500	1000
BMF2-DN200X1200-(2X3"X600)-SS304	DN200	3"	300	600	1200
BMF2-DN200X1200-(2XDN100X600)-SS304	DN200	DN100	300	600	1200

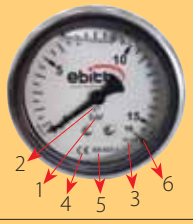
DIMENSIONS



3 PUMPS MODEL - SUCTION AND DELIVERY MANIFOLDS with FLANGED OUTLETS

			Dimensions in mm		
MODEL	Dna	DNb	C	B	L
BMF3-DN100X1200-(3X2"X400)-SS304	DN100	2"	200	400	1200
BMF3-DN125X1200-(3X2"X400)-SS304	DN125	2"	200	400	1200
BMF3-DN125X1200-(3X2"1/2X400)-SS304	DN125	2"1/2	200	400	1200
BMF3-DN150X1200-(3X2"1/2X400)-SS304	DN150	2"1/2	200	400	1200
BMF3-DN150X1200-(2X3"X400)-SS304	DN150	3"	200	400	1200
BMF3-DN150X1500-(3X2"1/2X500)-SS304	DN150	2"1/2	250	500	1500
BMF3-DN150X1500-(3X3"1/2X500)-SS304	DN150	3"	250	500	1500
BMF3-DN200X1500-(3X3"X500)-SS304	DN200	3"	250	500	1500
BMF3-DN200X1500-(3XDN100X500)-SS304	DN200	DN100	250	500	1500
BMF3-DN200X1800-(3X3"X600)-SS304	DN200	3"	300	600	1800
BMF3-DN200X1800-(3XDN100X600)-SS304	DN200	DN100	300	600	1800

Manometers



1. Scale Unit	
2. Scale Symbols	
3. Accurary Class	
4. CE Certificate	
5. Conformity	
6. Max. Steady Working Pressure	

Mounting Types and Connection Styles

On Request
- Panel Connection
- Eccentric Back Fitting

Measuring Display Range
0…1 bar up to 0…600 bar
negative or positive over pressure

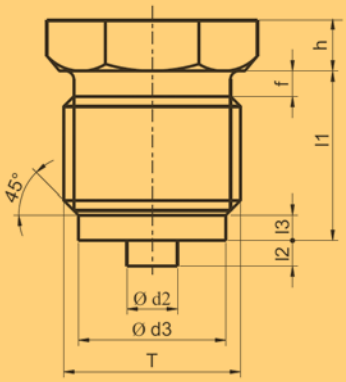
Accuracy Class

Products	CL 1,0	CL 1,6	CL 2,5
Ø40 mm General Purpose (Dry-Type)			+
Ø50 mm General Purpose (Dry-Type)			+
Ø63 mm General Purpose (Dry-Type)		+	+
Ø63 mm Glycerine Filled			+
Ø63 mm Capsule Diaphragm		+	
Ø100 mm General Purpose (Dry-Type)			+
Ø100 mm/Ø160 mm Accurate Type (Dry-Type)	+	+	
Ø100 mm Glycerine Filled			+
Ø100 mm/Ø160 mm Glycerine Filled Accurate Type		+	
Ø100 mm/Ø160 mm Diaphragm Seperated (Dry-Type or Glycerine Filled)		+	
Ø100 mm/Ø160 mm Electrical Contacted Type		+	

Note: In vibrating environments, preferglycerine-filled manometers. Gauges with special ranges, different brands can be provided on request. Please contact us for learning the minimum queantities.

Pressure Element Symbol	
C	Bourdon Tube Pressure Gauge
W	Helical Bourdon Tube Pressure Gauge
S	Spiral Bourdon Tube Pressure Gauge
∿∿	Capsule Diaphragm Pressure Gauge
∿	Horizontal Diaphragm Pressure Gauge

Threaded General Dimensions

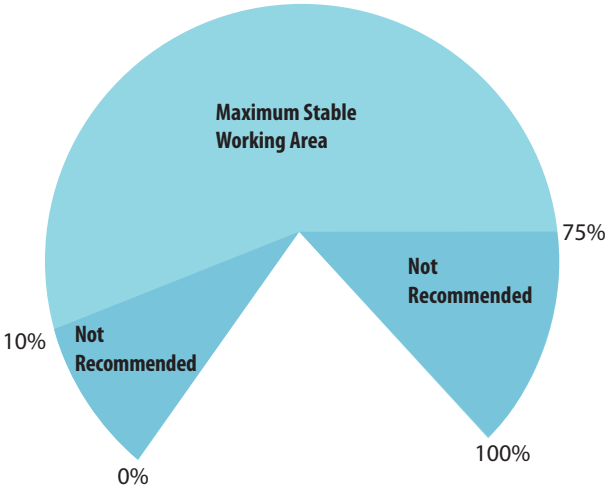


T	d2	d3	l1	l2	l3
G 1/8"	-	8	10	2	2
G 1/4"	5	9,5	13	2	2
G 1/2"	6	17,5	20	3	3

Manometers

Definitions of Symbol Shown on Dial

Manometer Selection for static working condition



Bourdon Tube Pressure Gauges:

Bourdon tube pressure gauges are the most common type in many areas and used to measure medium to high pressures. The measuring element is curved tube with a circular, spiral or coiled shape, commonly called a bourdon tube. This tube moves outward when the pressure inside the tube is higher than the external pressure and inward when the internal pressure is lower. This motion is proportional to the pressure to be measured and it is coupled to the pointer mechanism.

Diaphragm Pressure Gauges:

Diaphragm pressure gauges are used to measure of pressure up to 40 bar and vacuum to -1 bar of gases steam and liquids. They cover measuring element consists of one circular diaphragm clamped between a pair of flanges. The positive or negative pressure acting on these diaphragms causes deformation of the measuring element. The magnitude of the deformation is propartional to the pressure to be measured and it is coupled to the pointer mechanism.

Electrical Contacted Pressure Gauges:

Wherever the process pressure has to be indicated locally and at the same time, limit values must be monitored, contact pressure gauges find their application. The switch contacts make or brake the circuit dependent upon the pointer position of the indicating measuring instrument. If the reading is significantly above on below a set value, they trigger an alarm, hence also the term "alarm contact". Contact pressure gauges are also suitable for starting, stopping or switching processes.

VALMAT

Valvat MF

Valmat FU

Valmat valves are the result of combining ball valve, check valve and two plugged side outlets one after and one before the check valve for manometer and pressure switch assembly.

Valvat MF

- Male - Female connections
- Extremely reduced head loss
- Maximum operating pressure: 25 bar

1″	1¼″	1½″	2″

- Full bore
- Operating temperature: -15…60°C
- Valmat can be installed in any position (vertical, horizontal, oblique)
- Minimum operating pressure for checkvalves: 0,05 bar

Valmat FU

- Male - Female connections
- With union for connection to water meters or pump system (booster Sets)
- 1¼″ x 1″
- 1½″ x 1¼″
- 1½″ x 1½″
- 2″ x 1½″
- 2″ x 2″

Material

Body: Brass
Ball: Machined brass, chrome plated
Spring: Stainless steel
Handle: Polyurethane-coated aluminium
Ball Gaskets: P.T.F.E
Stem: Machined brass bar
Jumper: Polymeric resin
End Adaptor: Brass