

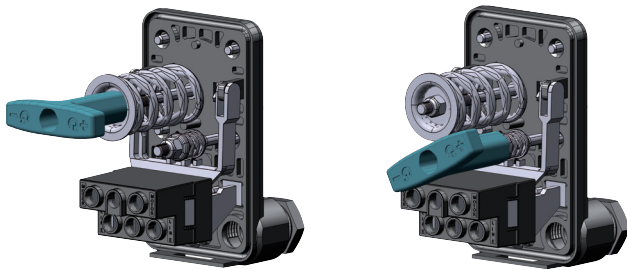
## PRESSURE SWITCHES FOR WATER SYSTEM APPLICATIONS



### Construction

- Pressure switches for use with water in autoclave systems
- The switch ensures automatically the starting and stopping of the electric pump according to the set pressure values
- Electric contacts: normally closed and made of brass alloy with Ag-Ni surfacing
- Terminals with M4 screws and 8x8 mm pressure dice
- NBR rubber membrane with textile insert (food grade for PMAT 5M-10, PMAT 5M/T-16, PMAT 5.5M/T-16)
- 1/4" F hydraulic connection made of galvanized steel
- Standard protection degree IP 44
- Liquid temperature up to 55 °C
- Max ambient temperature: 55°C
- Tear resistant cable clamps

### Adjustment key included



### Technical data

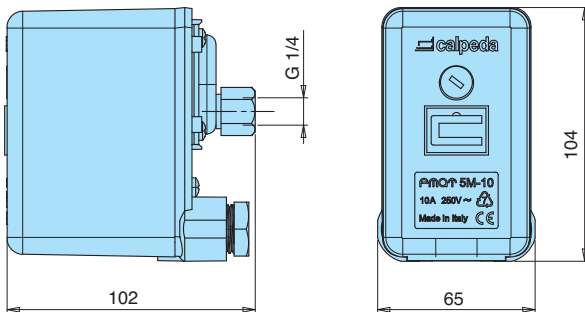
2-pins	max A	Pressure range bar	Differential		Factory setting bar
			min bar	max bar	
PMAT 5M-10	10	1 - 5	0,6	2,3	1,4 - 2,8

Maximum rated voltage 250V

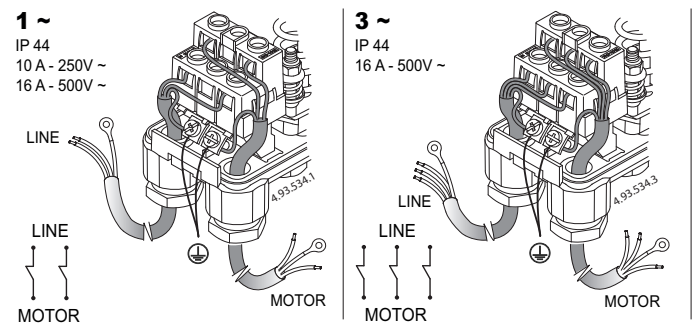
2-pins	max A	Pressure range bar	Differential		Factory setting bar
			min bar	max bar	
PMAT 5M/T-16	16	1 - 5	0,6	2,3	1,4 - 2,8
PMAT 5,5M/T-16	16	1,5 - 5,5	0,8	2,2	1,8 - 3
PMAT 12M/T-16	16	3 - 12	1,5	5	5 - 7

Maximum rated voltage 500V

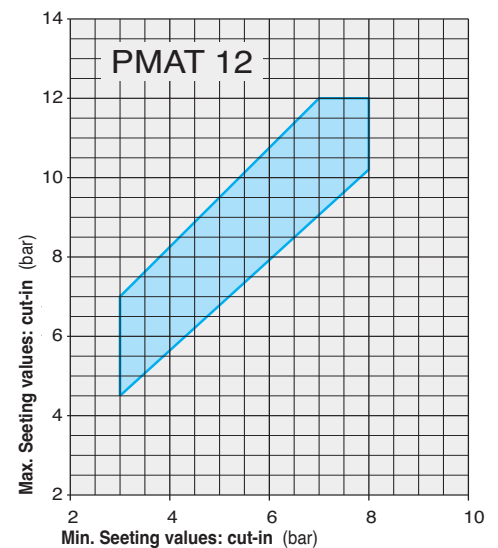
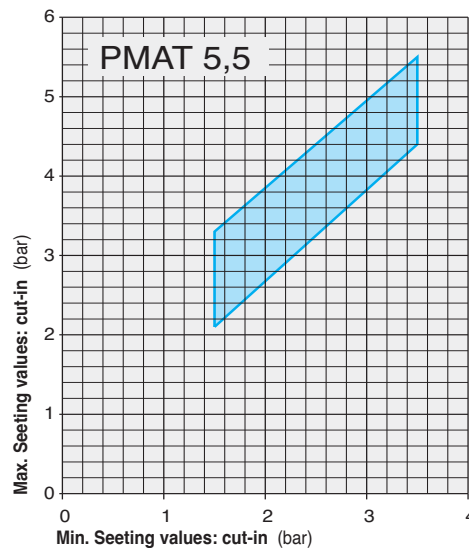
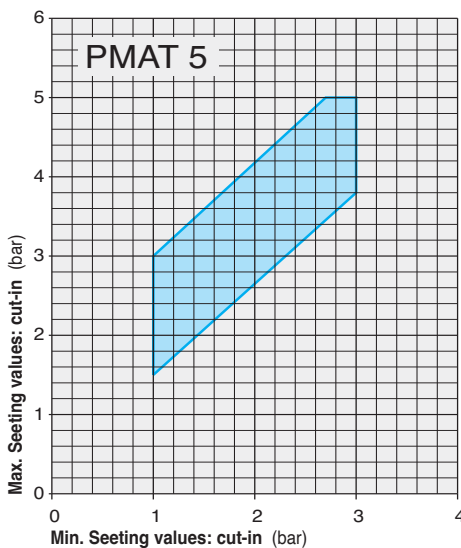
### Dimensions



### Connection diagram



### Diagram setting



## AUTOMATIC AIR FEEDER



### ARIAMAT

#### type

AR 300E

AR 1000E

AR 2000E

Complete with connections and 1 m polyethylene pipe

### Materials

Component	Material
Upper elbow	Brass
Air valve	Brass
Feeder body	Polycarbonate
Ball valve	Rubber
Conical fittings	Polyethylene
Pipe	Polyethylene

### Construction

The automatic air feeder ARIAMAT controls the air cushion in the pressure vessel by replacing the air dissolved in the water at every pump start. This device limits the number of pump starts and stops, allows a better use of the water reserve and improves the overall performance of the automatic pressure system.

### Operation

ARIAMAT operation is explained in pictures 1-2-3-4.

At the end of every cycle, ARIAMAT AR 300E, AR 1000E and AR 2000E let in the vessel 300, 1000 and 2000 cm<sup>3</sup> of air respectively.

For a good operation of ARIAMAT it is necessary to have enough suction pressure in the pipe whilst the pumps are running.

If the pumps work under positive suction head and water falls to the suction inlet, there will not be enough suction pressure in the suction pipe to allow a correct operation of ARIAMAT; in this case, it is necessary to create an artificial loss in the suction pipe, by closing gradually the gate valve when the pump is running until the water level in the ARIAMAT starts dropping.

When a sufficient suction pressure to grant a safe ARIAMAT operation cannot be achieved, it is recommended to feed the vessel with a compressed air system and level probes.

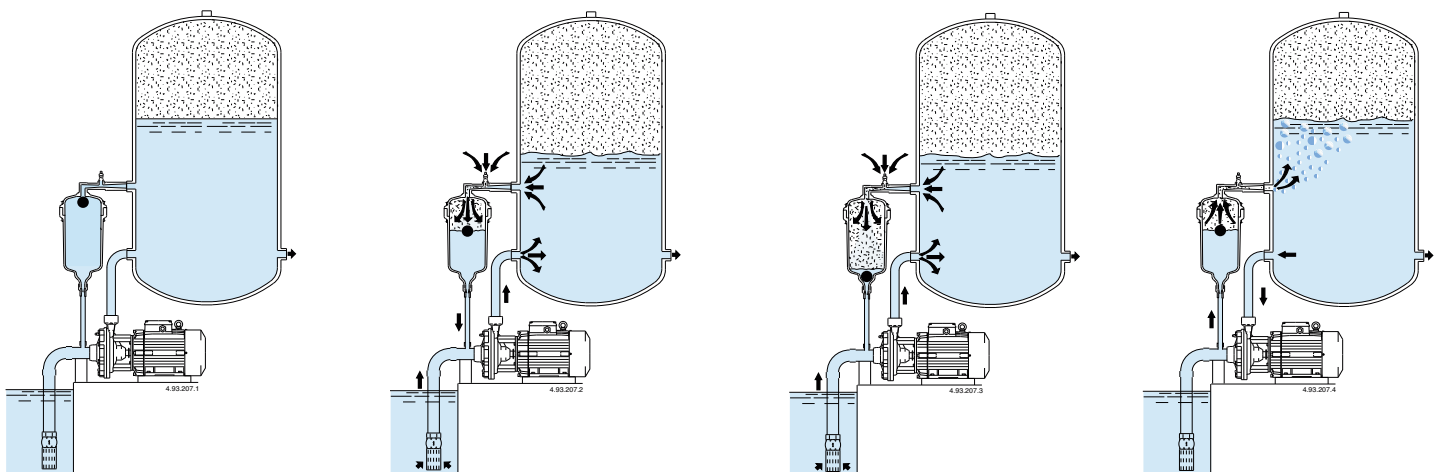
### Description of the supply

The ARIAMAT is normally fitted on our automatic water systems.

The supply of ARIAMAT, as a spare part to be installed by the customer, includes:

- n° 1 ARIAMAT assembled with upper elbow and air valve;
- m 1 Polyethylene tube with ring nut and fitting for connection to the pump suction side.

Pressure in m	Pressure vessel capacity in litres											
	100	200	300	400	500	750	1000	1500	2000	3000	4000	5000
14/28	AR 300E						AR 1000E					AR 2000E
20/30	AR 300E					AR 1000E						AR 2000E
30/40	AR 300E			AR 1000E						AR 2000E		
35/55	AR 300E			AR 1000E						AR 2000E		
55/70	AR 300E		AR 1000E						AR 2000E			
75/95	AR 300E	AR 1000E				The use of an air compressor is recommended.						



- 1) When the pump is stopped, ARIAMAT is full of water.
- 2) When starting, the pumps creates a suction pressure which also takes the water from ARIAMAT, allowing some more water to come from the vessel. The water through the ARIAMAT venturi sucks air from the upper valve.
- 3) The water level in the ARIAMAT drops until the ball valve moves to the bottom of the ARIAMAT closing the hole of the pipe connected to the pump. ARIAMAT is now full of water.
- 4) When stopping, there is a back-flow of water from the vessel through the pump, to the ARIAMAT. Air is pushed inside the vessel.

# ACCESSORIES

## VALVES



check valve

VNR 1

VNR 1 1/4

VNR 1 1/2

VNR 2

foot valve

VDF 1

VDF 1 1/4

VDF 1 1/2

VDF 2

## PRESSURE GAUGES



axial connection type

MA 0-6

MA 0-6 ABS

radial connection type

MR 0-10

MR 0-12

MR 0-16

## CONNECTOR



type

connection

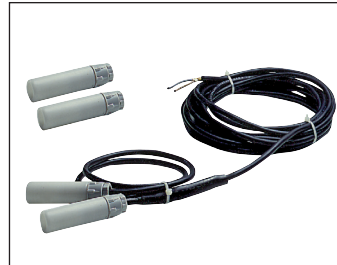
RA5 H 92

G 1

RA5 H 105

G 1

## LEVEL PROBES



type

SL 2 electrodes

SLA Assembled level probes

Cable 2x0,75 mm<sup>2</sup>

(cable length on request)

example:

SLA 30

Assembled level probes

30 m cable length

## SPHERICAL VESSEL



type

connect.

capacity

SS 24

G 1

24 l

BUTYL rubber diaphragm.

## CYLINDRICAL VESSEL



vessel with base and feet

type

connect.

capacity

SC 20 BP

G 1

20 l

BUTYL rubber diaphragm.

## INOX CYLINDRICAL VESSEL



vertical cylindrical vessel

type

connect.

capacity

SCX 20

G 1

20 l

BUTYL rubber diaphragm.

## INOX CYLINDRICAL VESSEL



vessel with base and feet

type

connect.

capacity

SCX 20 BP

G 1

20 l

BUTYL rubber diaphragm.

# ACCESSORIES

## CE 97/23 PED APPROVED PRESSURE VESSELS (Air tanks)

Hot galvanized vessels	TYPE	Dimensions		weight
		D x H mm	DN	
	100- 5	400 x 1020	G 1	32
	200- 5	450 x 1440	G 1	48
	300- 8	550 x 1500	G 1 1/2	65
	500- 8	650 x 1820	G 2	105
	800- 8	800 x 1900	G 2	145
	1000- 8	800 x 2150	G 2 1/2	160
	1000- 12 ▲	800 x 2300	G 2 1/2	203
	1500- 5	950 x 2500	G 2	190
	1500- 8 ▲	950 x 2500	G 2	255
	2000- 8 ▲	1100 x 2570	G 2 1/2	330
	2000- 12 ▲	1000 x 2780	G 2 1/2	387
	3000- 8 ▲	1250 x 2930	G 3	470
	3000- 12 ▲	1200 x 2930	G 3	596
	4000- 8 ▲	1450 x 3090	G 3	620
	4000- 12 ▲	1450 x 3090	G 3	880
	5000- 8 ▲	1450 x 3590	G 4	715
	5000- 12 ▲	1450 x 3590	G 4	1020

The vessels are suitable for water up to 50 °C  
They are all approved at manufacturer's premises and are supplied complete with safety valve, tested pressure gauge and fittings.

## CE 97/23 PED APPROVED MEMBRANE VESSELS (Membrane vessels)

	TYPE	Pressure bar	Dimensions		weight
			D x H mm	DN	
	SM 60 V	10	382 x 845	G 1	-
	SM 80 V	10	450 x 850	G 1	-
	SM 100 V	10	450 x 950	G 1	-
	SM 200 V	10	550 x 1255	G 1 1/2	-
	SM 300 V	10	630 x 1405	G 1 1/2	-
	SM 500 V	10	780 x 1550	G 1 1/2	-
	SM 750 V	10	780 x 1940	G 1 1/2	-
	SM 1000 V	10	980 x 1970	G 2	-

EPDM diaphragm  
Temperature -10 ÷ +100 °C  
With safety valve and pressure gauge 0÷10 bar

### FLOAT SWITCH



type  
**INTGALL**  
(cable 3 m, 5 m, 10 m)

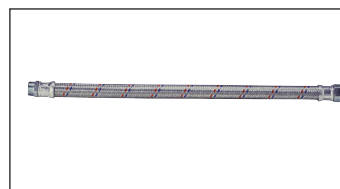


type  
**INTGALL M**  
(cable 5 m, 10 m, 20 m)



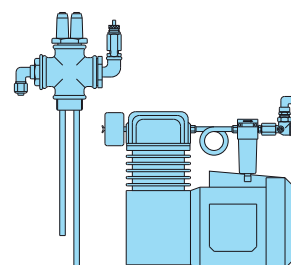
type  
**INTGALL A**  
(cable 5 m, 10 m)

### FLEXIBLE HOSE



type	d x length
FP 1-630	G 1 x 630
FP 1-680	G 1 x 680

### SYSTEM FOR AIR INTAKE



Kit of level probes  
with compressor