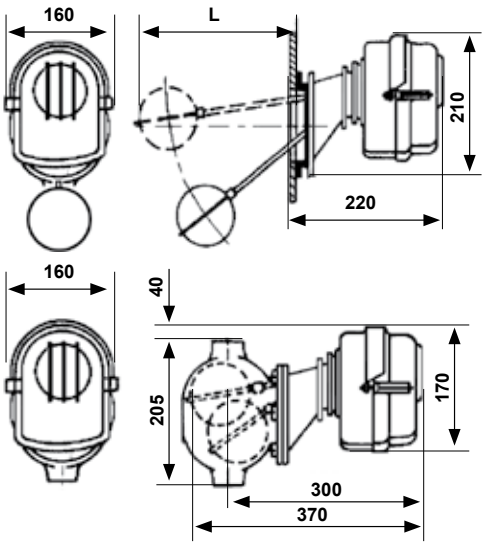
A41-A42

Mechanical level controls for under pressure systems up to 16 bar

Suitable to control liquid level in tanks under pressure, autoclaves, steam generators with control contact for supply pump and with minimum level control.

MOD.	L
A41A	135 ÷ 325
A41B	335 ÷ 780

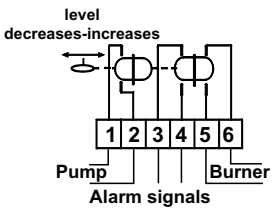
Dimensions (mm)

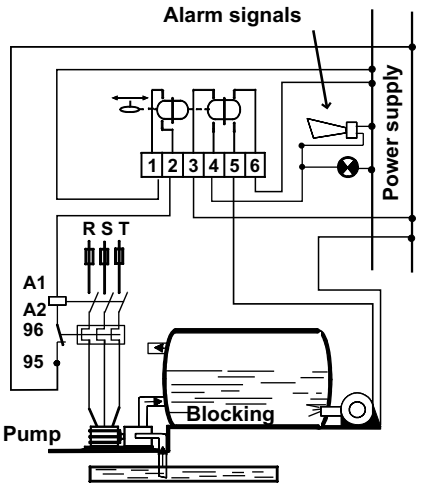


	Level differential mm	Maxim. operat. pressure	Maxim. liquid temperature	Connection	Contact rating	Protection degree
CONNECTION WITH SOCKET WITH BILATERAL INTERNAL THREAD G1						
A42A	25 ÷ 50	16 bar	200 °C	thread G1	5(2)A 250Vca	IP54
FLANGE CONNECTION WITH VISIBLE FLOAT						
A41A	25 ÷ 50	16 bar	200 °C	flange	5(2)A 250Vca	IP54
	25 ÷ 75	16 bar	200 °C	flange	5(2)A 250Vca	IP54
A41B	55 ÷ 210	16 bar	200 °C	flange	5(2)A 250Vca	IP54
	65 ÷ 305	16 bar	200 °C	flange	5(2)A 250Vca	IP54
	95 ÷ 370	16 bar	200 °C	flange	5(2)A 250Vca	IP54
	140 ÷ 570	16 bar	200 °C	flange	5(2)A 250Vca	IP54

ELECTRICAL FEATURES

Two mercury bulb switches for high temperatures: one switch for pump control, another, double, to control the burner and the minimum level alarm signal.





Rated insulation voltage	Ui 380Va.c.		
Continuous rated current		Ith 6A	
Operation rated current at:		220V	250Va.c.
Resistive load	AC-12	-	5 A
Inductive load	AC-15	-	2 A
Direct current	DC-13	0,2A	-

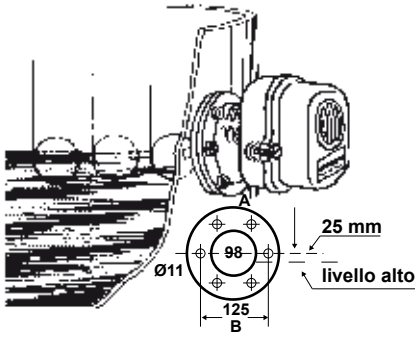
HOMOLOGATION AND STANDARDS

Conformity with CEI-EN 60947-5-1 standards.

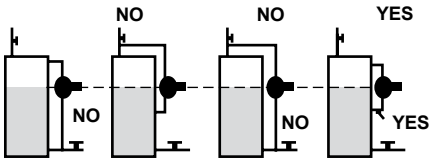
INSTALLATION

A41A-A41B: flange connection for direct mounting on the tank; submersible float in the tank.
A42A: thread connection G1 with cast iron body to protect the float; external installation.

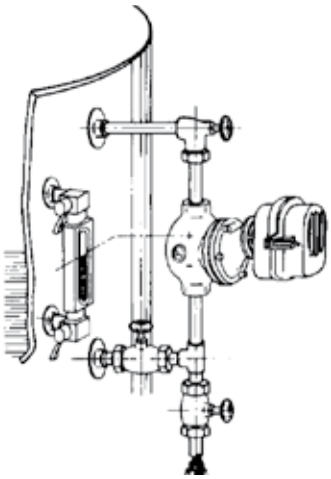
A41 INSTALLATION EXAMPLE



A42 INSTALLATION EXAMPLE



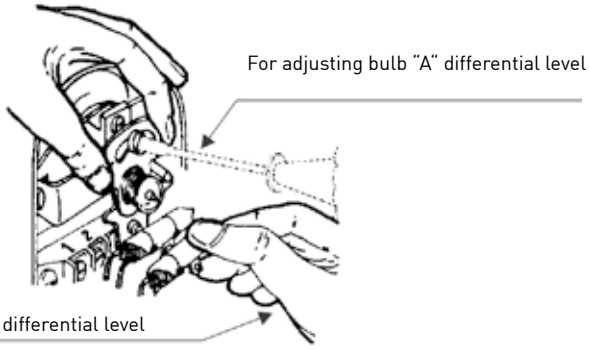
Purge periodically to avoid precipitation due to dirty water, matter that may cause operation blockage of the control unit or of the alarm signals.



OPERATION

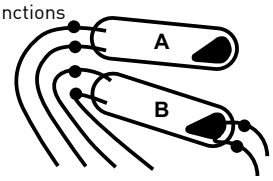
A4 group level controls are made up from a float, whose managing shank is attached to the body by means of stainless steel bellows, transfer pin oscillates on the fulcrum, pressing or releasing the steel bellow. Level change is moving the float, which controls two mercury bulbs that ensure the execution of appropriate electrical connections.
The connection between the control levers and the group of contacts is carried out by a device that allows you to adjust the deviation (i.e. allowed level drop) within certain limits; also allows alarm signal adjustment relative to the minimum and maximum level.

ADJUSTMENT OF THE BULB DIFFERENTIAL LEVEL

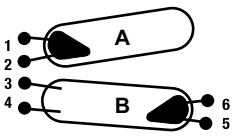


BULB "A" AND "B" POSITION IN THREE OPERATION POINTS OF THE ELECTRICAL CIRCUITS AS A RESULT OF LEVEL CHANGING

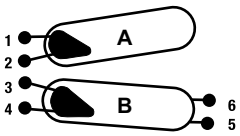
HIGH LEVEL POSITION
filling pump stops
burner functions



LOW LEVEL POSITION
filling pump functions
burner functions



DANGEROUS LEVEL POSITION
filling pump functions
burner is not working



FEATURES

A41 SERIES

This level control is made of a stainless steel ball float and a flange for pressure up to 25 bar.
Ball-shaped body made of shockproof and high density cast iron.
Ball-shaped mercury switches for high temperatures.
Differential level adjustment device.
Execution: armored.
Viewing window protected by a double glass for ball-shaped mercury switches visibility.
Conductors outputs with metallic flexible tubes.

A42 SERIES

Execution similar with A41 series.
Cast iron body to protect the float with thread connection 1", which is in contact with liquid zone and air or steam zone of the boiler or of the reservoir by means of pipes of identical diameters.
All other executive and operational details are identical with the details of the A41 series.
Storage and transport temperature: -25 ÷ 60°C.
Weight: A41A unit weight 5,4 Kg
A41B unit weight 5,1 Kg
A42A unit weight 9,3 Kg