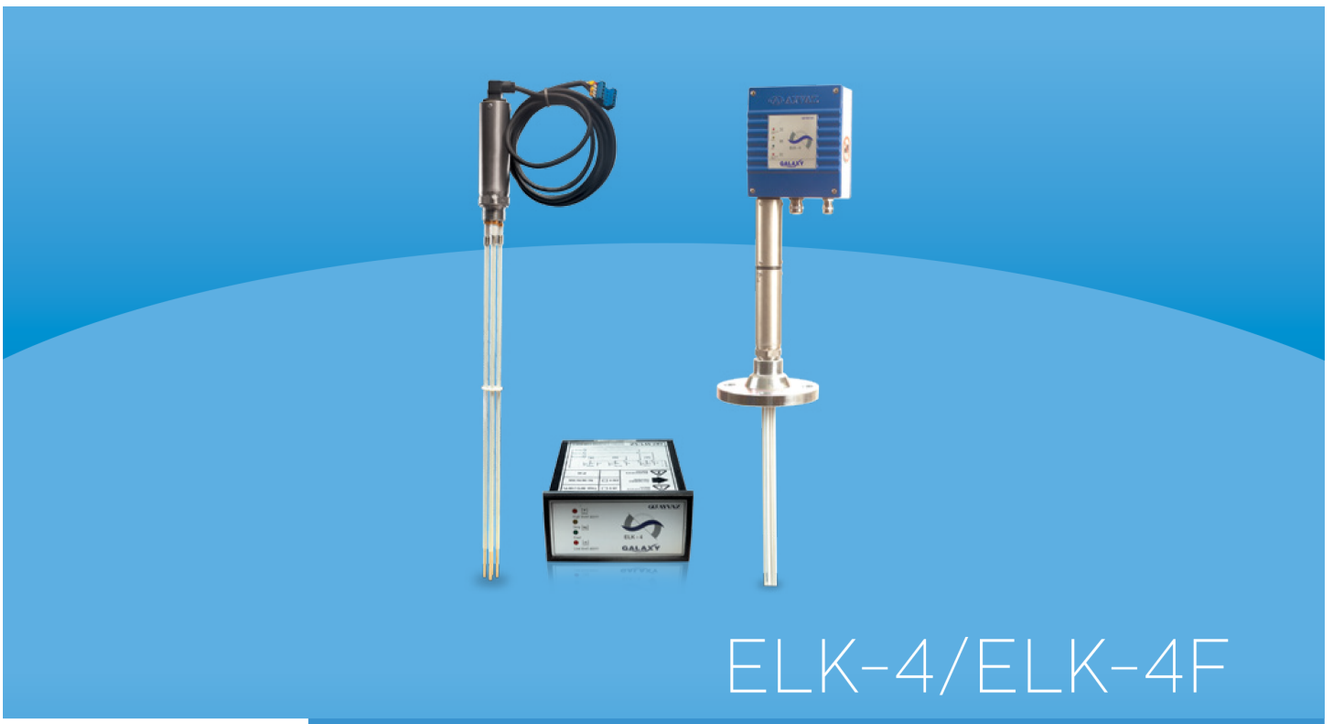
Electrodo de Nivel Cuatro Varillas ELK-4



GENERAL FEATURES

Ayvaz Compact System Galaxy ELK-4/ELK-4F work according conductivity measurement principle.
ELK 4/ ELK 4F capable of displaying 4 levels in conductor liquids;
4 levels each with one contact point:

- High level alarm,
- Low level alarm,
- Pump start,
- Pump stop.

ELK 4/ELK 4F ensure the control of all functions inside the panel. No external control device required.

Conductivity of liquid is utilized for displaying the level of liquid. Minimum conductivity of liquid must be measured in order to ensure safe functioning of device. With this feature of fluids, two conditions can be detected.

- Electrode rod dipped / exposed,
- Switch point accessed / not accessed

Before the assembly, sizes of electrode rods must be adapted according to contact levels. (For example; maximum / minimum alarm or pump control

Application Areas:

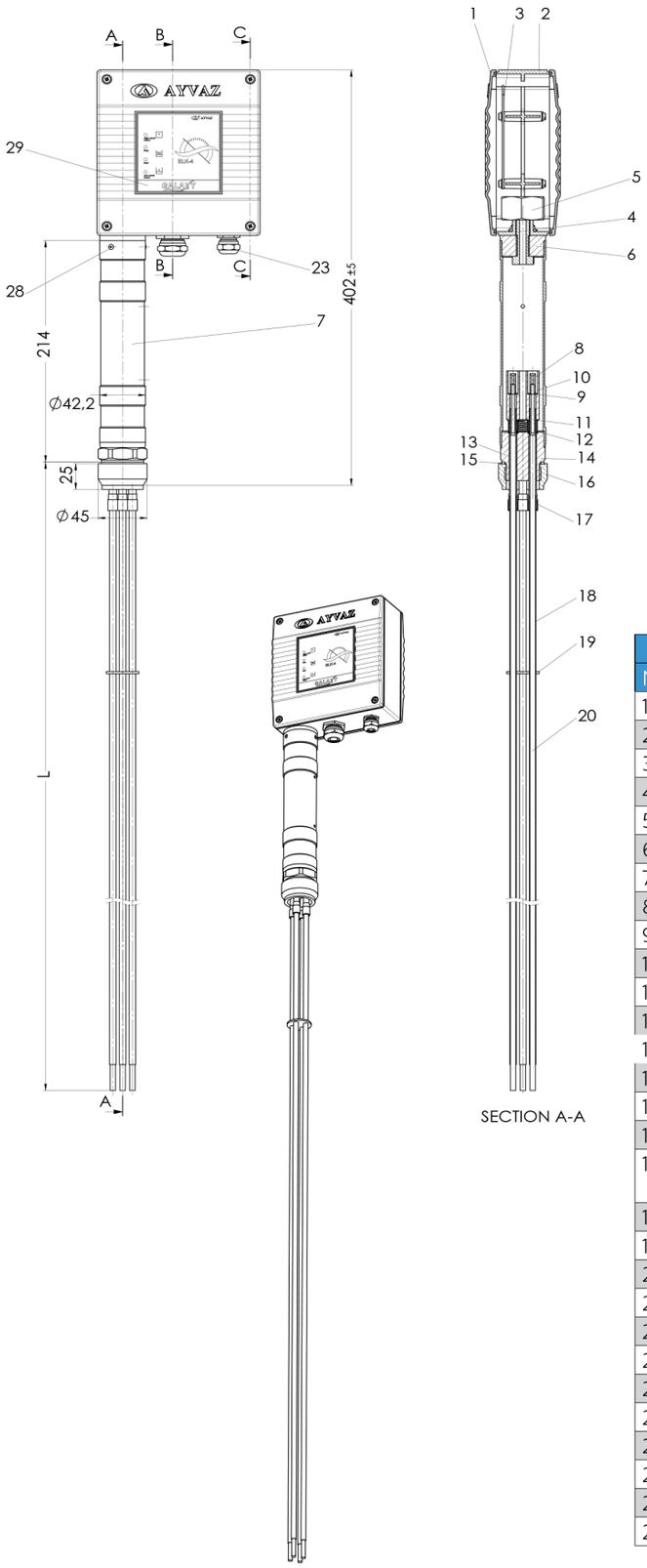
-Steam Boilers
-Supply Tanks
-Chemical Applications

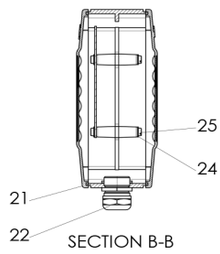
	LENGTH(mm)		
ELK-4	500	1000	1500
ELK-4F	436	936	1436

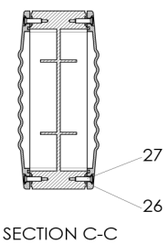
	Connections
ELK-4	Threaded 1" BSP (DIN ISO 228)
ELK-4F	Flanged (DN 50 and above PN 40 DIN 2635)

Technical Specifications	
Max. Working Temperature	238 °C
Max. Working Pressure	32 bar
Main Feeding	230 V + % 10, 50-60 Hz
Body	Stainless Steel
Flange	Forged Steel
Case	Aluminum Injection
Reading Electrode	Stainless Steel

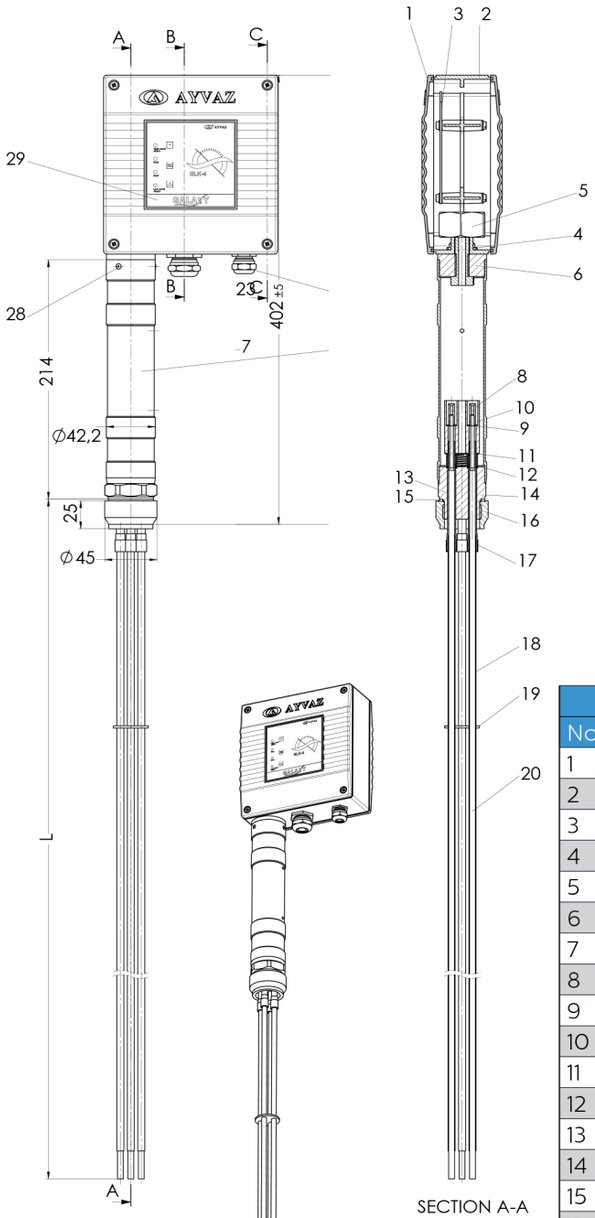
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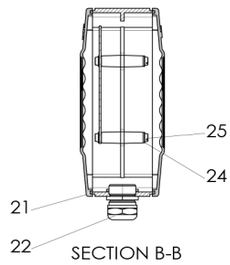


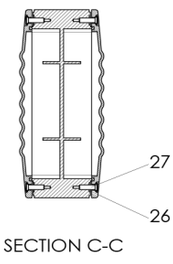




ELK-4 SPARE PARTS				
No	Item	Part	Material	Dims.
1	2	Bonner	Aluminum	
2	1	Panel Body	Aluminum	
3	1	Control Panel Circuit	Breadboard	
4	1	Panel Connection Bolt		
5	1	Nut		M12
6	1	Heat Insulation Rod Cover		
7	1	Heat Insulation Rod	AISI 304	
8	4	Electrode Switch Nut	transmission	
9	4	Washer		M4
10	4	Electrode Pipe Stabilizer	teflon	
11	4	Washer		
12	4	Electrode Press Spring	spring steel	
13		Electrode Sealing Cover	teflon	
14	1	Electrode Body	AISI 316 Ti	BSP1"
15	1	Electrode Body Gasket	AISI 304	
16	1	Sleeve	Steel	BSP1"
17	4	Electrode Switch Teflon Cover Lock		
18		Electrode Switch Teflon Cover	teflon	
19	1	Centering Piece	teflon	
20	4	Electrode Switch Pipe	AISI 316 Ti	
21	1	Bolt	Silicon	
22	1	Nut		R 1/2"
23	1	Nut		R 3/8"
24	9	Washer		M4
25	9	Bolt		M4x10
26	8	Gasket		Ø4
27	8	Bolt		M4x16
28	3	Rivet		
29	2	Label		



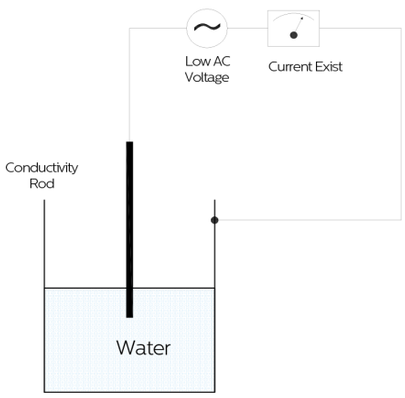




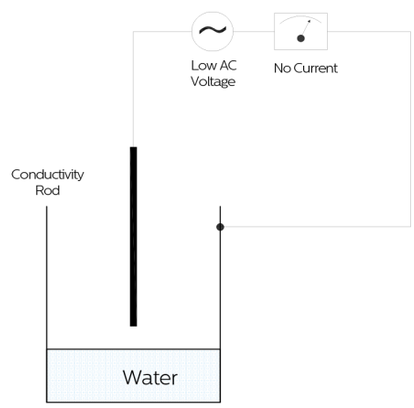
ELK-4F SPARE PARTS				
No	Item	Part	Material	Dims.
1	2	Bonner	Aluminum	
2	1	Panel Body	Aluminum	
3	1	Control Panel Circuit	Breadboard	
4	1	Panel Connection Bolt		
5	1	Nut		M12
6	1	Heat Insulation Pipe Cover		
7	1	Heat Insulation Pipe	AISI 304	
8	4	Electrode Switch Nut	transmission	
9	4	Washer		M4
10	4	Electrode Pipe Stabilizer	teflon	
11	4	Washer		
12	4	Electrode Pressure Spring	spring steel	
13		Electrode Sealing Cover	teflon	
14	1	Electrode Body	AISI 316 Ti	BSP1"
15	1	Electrode Body Gasket	AISI 304	
16	1	Electrode Connection Flange	C22.8	
17	4	Electrode Switch Teflon Cover Locer		
18		Electrode Switch Teflon Cover	teflon	
19	1	Centering Piece	teflon	
20	4	Electrode Switch Pipe	AISI 316 Ti	
21	1	Bolt	Silicon	
22	1	Nut		R 1/2"
23	1	Nut		R 3/8"
24	9	Washer		M4
25	9	Bolt		M4x10
26	8	Gasket		Ø4
27	8	Bolt		M4x16
28	3	River		
29	2	Label		

The control of the level in the boiler or tanks is carried out with the help of sensors operating on different principles.

Conductivity Rod:
Principle of operation: The sensor determines the level of water according to the electrical conductivity of the environment in which it is contacted.



It transmits the current, which is the contact with water.

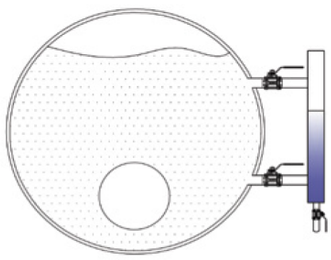


It doesn't transmit the current, which is not the contact with water.

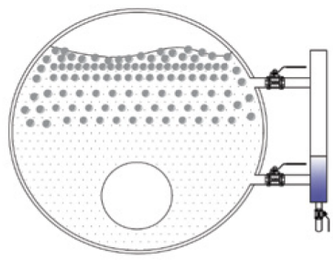
The water level in the boiler:
It is not possible to read level of water during the production of steam by the classical water level indicator.

When the steam is produced, the water-level consists of steam-water mixture bubbles, and the precise water level can not be detected because the water level is in motion. The water level observed outside the boiler is read as lower than the actual water level in the boiler. The reason for this is that the water density at the water level indicator outside the boiler is higher.

Level Drop



Water level without steam production



Water level in steam production

Factors affecting the difference between the actual water level and the water level read from the outside:

1-Boiler Steam Capacity
2-Height of boiler outer level indicator compared to boiler
3-Chemical properties of boiler water
4-Size of boiler body

The advantages:

1-Self-testing level caps remove the necessity of daily testing of the system.

2-These systems are safe because products do not consistof moving elements and they do not need maintenance.

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