Eshteal Arak Industrial Engineering Company is the only manufacturer of high-capacity rotary cup burners in the country, and these burners are used by all boiler companies in the country . Among the unique products produced by this company are power valves that are designed for saturated and superheated steam lines. This product was prouced for the first time in the country in 2014 in the Mobarake steel complex and at a pressure of 70 bar It has been used successfully Eshteal Arak Industrial Engineering Company has been modernizing its production lines since 2003 and is currently equipped with more than 98 machines, 61 of which are CNC lathes and milling centers (referred to at the end), stepped into the field of producing products with modern sophisticated technology It should be mentioned that this company has succeeded in obtaining the knowledge-based badge on burners and valves during two consecutive periods, and in order to enhance the brand and satisfy customers, the necessary standards such as ISIRI 7595, ISIRI 7594, ISO 3834, ISO 9001:2015 and implemented 5S



The compact system ELE works according to the conductivity measurement principle. With the ELE a maximum of 4 levels can be signalled in conductive liquids: MAX alarm, MIN a The conductivity measurement method can detect two conditions: electrode rod submerged/ exposed or switchpoint reached/not reached. Before installation, the length of the electrode rod must be adapted to the switching levels, e. g. for max./min. alarm, controlling of a valve or pump larm, pump ON pump OFF with one switchpoint each. Service pressure: 32 bar at 238°C

Level electrode ELE



### ESHTEAL ARAK

INDUSTRIAL ENGINEERING CO. Manufacturer of burners, valves and precision tools for steam boilers

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## level electrode

Type ELE 20-1

# **Description**

The ELE 20-1 is a compact-type system consisting of a level electrode with four tips. For the correct functioning of the equipment the water must have a minimum conductivity of > 25  $\mu$ S/cm at 25 °C. The lengths of the associated electrode rods determine the switch points for water level control and MIN / MAX water level. The equipment detects whether the electrode tips are exposed or immersed and activates the associated relay output contact accordingly.

# **Applications**

The compact system is used as water level controller, for instance in steam boilers, (pressurized) hot-water installations as well as condensate and feed water collecting tanks.

### **Technical data**

Service pressure

PN 40, 32 bar at 238°C

Mechanical connection

Screwed G 1" A, ISO 228

Materials

Screw-in body: 1.4571, X6CrNiMoTi17-12-2

Sheath 1.4301 X5 CrNi18-10

Screw-in body 1.4571 X6 CrNiMoTi17-12-2

Flange 1.0460 C 22.8

Electrode tips 1.4571 X6 CrNiMoTi17-12-2

Insulation PTFE
Spacer disc PTFE



### Technical data - continued -

### Power consumption

5 VA

### Supply voltage

24 VDC

### Fuse

External 500 mA, for 24 V.

Internal thermal fuse  $T_{max} = 102 \, ^{\circ}C$ 

### • Electrode voltage

 $10 \, \mathrm{V_{ss}}$ 

### •Indicators and adjusters

3 red LEDs for signalling "Level 0 %" within the measuring range.

3 green LEDs for signalling "Normal Range" within the measuring range.

4 orange LEDs for signalling "Level 100 %" within the measuring range.

## Output

4 volt-free change-over contacts, 8 A 250 V AC / 30 V DC

 $Cos \ \varphi = 1.$ 

# •Max. Admissible ambient temperature

Max. 70 °C

# •Storage and transport temperature

$$-20 \text{ to} + 80 \,^{\circ}\text{C}$$

### **Dimension**

Dimensions (approx.) in mm

Lengths supplied (L) = 500, 1000, 1500

# **Approvals: E.P.I.L Co**

Acc. to: IEC 61000-4-2

IEC 61000-4-3

IEC 61000-4-8

IEC 60068-2-78

IEC 60068-2-1

IEC 60068-2-2

