

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 produced 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



Use conductivity transmitters ETC only for measuring the electrical conductivity in liquids. When used for conductivity limiting or continuous boiler blowdown in steam boilers. The compact-design conductivity transmitter ETC consists of a conductivity electrode and a temperature sensor for detecting the fluid temperature and a conductivity transmitting unit incorporated in the terminal box. The conductivity transmitter ETC works according to the conductometric measuring method using four measuring electrodes. The equipment measures the conductivity of electrically conductive fluids (TDS content) and provides current output (4-20 mA) or relay output as a function of the detected conductivity value.

Service pressure : PN 40, 32 bar at 238°C

Conductivity Transmitter ETC



ESHTEAL ARAK

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Conductivity transmitter

Type ETC 19-1

Description

The compact-design conductivity transmitter ETC 19-1 consists of a conductivity electrode, a temperature sensor for detecting the fluid temperature and a conductivity transmitter unit incorporated in the terminal box.

ETC 19-1 works according to the conductometric measuring method using four measuring electrodes. The equipment measures the electrical conductivity of electrically conductive fluids (TDS = Total Dissolved Solids content) and provides a 4-20 mA measuring current as a function of the detected conductivity value.



Applications

The conductivity transmitter ETC 19-1 is mainly used in industrial boiler plants operating with pressures up to PN40 and max. admissible conductivities acc. to TRD/EN of 6000 $\mu\text{S}/\text{cm}$.

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

Electrode rod insulation: PTFE

Terminal box: 3.2161 G AlSi8Cu3

Spacer discs: PTFE/PEEK

- **Temperature sensor**

Resistance thermometer Pt 1000

Technical data - continued -

- **Electronic circuit board supply voltage**

24 VDC

- **Power consumption**

4.5 W

- **Fuse**

Electronic thermal fuse $T_{\max} = 85\text{ }^{\circ}\text{C}$,

Hysteresis – 2 K.

- **Temperature sensor**

Resistance thermometer Pt 1000

- **Measuring cycle**

1 sec.

- **Indicators and adjusters**

- Two LEDs for status messages
- One 10-pole code switch for setting
- measuring range
- temperature coefficient
- cell constant
- functional test

- **Output**

4 - 20 mA, proportional to conductivity and free relay contacts

- **Max. Admissible ambient temperature**

Max. $70\text{ }^{\circ}\text{C}$

- **Storage and transport temperature**

– 40 to $+ 80\text{ }^{\circ}\text{C}$

Dimension

Dimensions (approx.) in mm

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

