PSK Controllers Ltd.
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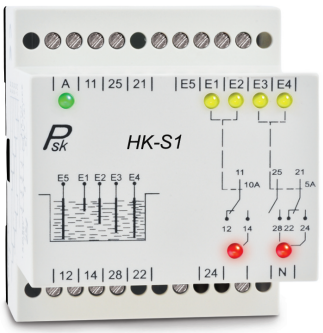
HK-S1

5 electrodes boiler water level control.



- Works with conductivity probes
- Controls on/off pump
- Controls alarm duties
- Controls the firingfeul
- LED indicates for Probes status
- LED indicates for Pump, Alarm and burner status

To achieve a steam output matched to the varying Requirements of the average steam plant, good control Of boiler water level is necessary. With the small steam Spaces now common in modern boilers, a quick and Accurate response to variations in water level is essential. In order to operate safely, all steam boilers need a Method of warning of excessively low or high water Levels. In many countries, regulations require two Independent low water level alarms or limiters. Independent high alarms are also required in many Cases. With the move towards unmanned boiler houses, there is an increasing need for high integrity Self-monitoring alarms. The HK-S1 uses a conductivity probe in a boiler or a tank For on /off pump control, or alarm duties and firing fuel control. It has one electrode for each function, which is cut to The required length on installation. Each probe Electrode acts as a simple switch, indicating a low Resistance to earth if in water, or a high resistance if Out of water, it can also be mounted directly in the boiler shell in Protected tube.

General specification

- Supply voltage: refer to table below
- Power consumption 1.0 VA
- Duty cycle: 100%
- Hysteresis: 3% fixed.
- Protection class open air: IP20
- Protection class enclosed: IP20
- Self-extinguishing plastic housing UL V0 acc IEC 529
- Mounting position: on DIN-rail TS 35 according to EN 50022
- Terminals: acc IEC 60947-7-1, IEC 60998-1
- Terminal Capacity: 1x4mm² without multicore cable end.
  1x0.5 to 2.5mm² with/without multicore cable end.

Display

- Red LED PUMP ON
- Red LED BURNER ON
- Red LED ALARM ON
- Green LED ON – Unit connected to main.
- Yellow LED (E1) ON – Liquid riches high probe,
- High water alarm on, Pump off, burner on.
- Yellow LED (E2) ON – Pump on, Burner on, High water alarm on.
- Yellow LED (E3) ON – Pump on, Burner activated, High water alarm on.
- Yellow LED (E4) ON – Low alarm level on, Pump on.

Output circuit

Relay: 1 C/O
Rated voltage: 250VAC
Switching capacity ac: 2000 VA (8A / 250VAC) COS ϕ = 1
Switching capacity dc: 6A 30Vdc
Max switching capacity ac: 10A
Mechanical life: 1x10⁶ operations
Electrical life at 1000 VA COS ϕ = 1:200,000 operations

Environmental conditions

- Permissible ambient temperature: -20ºC…..+50ºC
- Storage temperature: -25ºC…..+70ºC
- Transport temperature: -25ºC…..+70ºC
- Relative humidity (acc. IEC 721-3-3 CLASS 3K3): 15% to 85%
- Vibration resistance (acc. IEC 68-2-6): 10 to 55H

Dimensions & weight

- Width: 62 mm
- Height: 65 mm
- Depth (excl. DIN-profile): 72 mm
- Weight:278 gram

Ordering information

HK-S1

110VAC	
208VAC	
400VAC	
415VAC	

Liquid level monitoring relay

DIN

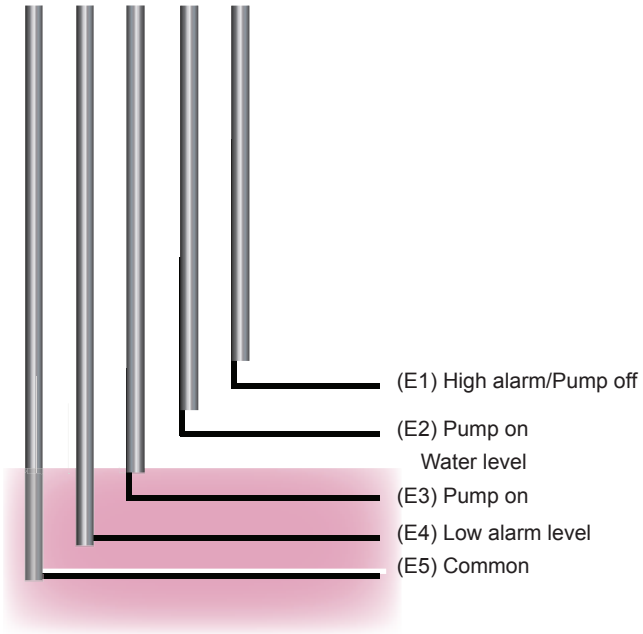
CE

Liquid level monitoring relay

Protection Tubes

* Unused probe tips not shown

Conductivity Probes



Dimensions