

### Screw-in heater

with combination of temperature control, safety temperature limiter, operating light, contactor and change-over switch



#### Application

Auxiliary heating system of industrial water and heating water in solar plants and heat pump systems.

#### Features

SH The heating element is made of three U-shaped heating tubes, which are mounted isolated into a 1½" conical brass nipple by food-safe plastic sleeves.

Thanks to the insulated mounting of the heating tubes, the devices are also suitable for enamelled boilers.

The unheated zone is 150 mm for all types.

TC Electromechanical temperature control acc. EN 14597, not fail safe.

STL Electromechanical safety temperature limiter acc. EN 14597, fail safe. If nominal value is reached, the limiter switches OFF and stays locked in this position. Reset is performed manually and is only possible after the sensing element is cooled off by approx. 10 K.

- Time factor of sensing element acc. EN 14597
- Operation type TC Type 2 B acc. EN 14597
- Operation type STL Type 2 BK acc. EN 14597

#### Type summary

Industrial and heating water  
Cronifer 1.4529

Type	Order-no.	Power	Immersion length [EL]
AHIR-B-C-1.0	012-4401	1.0kW; 400V 3~	300mm
AHIR-B-C-1.5	012-4402	1.5kW; 400V 3~	300mm
AHIR-B-C-2.0	012-4403	2.0kW; 400V 3~	300mm
AHIR-B-C-2.5	012-4404	2.5kW; 400V 3~	300mm
AHIR-B-C-3.0	012-4405	3.0kW; 400V 3~	400mm
AHIR-B-C-3.8	012-4406	3.8kW; 400V 3~	450mm
AHIR-B-C-4.5	012-4407	4.5kW; 400V 3~	500mm
AHIR-B-C-6.0	012-4408	6.0kW; 400V 3~	600mm
AHIR-B-C-7.5	012-4409	7.5kW; 400V 3~	700mm
AHIR-B-C-9.0	012-4410	9.0kW; 400V 3~	750mm
Industrial and heating water Incoloy 825; 2.4858			
AHIR-BI-C-1.0	012-4441	1.0kW; 400V 3~	300mm
AHIR-BI-C-1.5	012-4442	1.5kW; 400V 3~	300mm
AHIR-BI-C-2.0	012-4443	2.0kW; 400V 3~	300mm
AHIR-BI-C-2.5	012-4444	2.5kW; 400V 3~	300mm
AHIR-BI-C-3.0	012-4445	3.0kW; 400V 3~	400mm
AHIR-BI-C-3.8	012-4446	3.8kW; 400V 3~	450mm
AHIR-BI-C-4.5	012-4447	4.5kW; 400V 3~	500mm
AHIR-BI-C-6.0	012-4448	6.0kW; 400V 3~	600mm
AHIR-BI-C-7.5	012-4449	7.5kW; 400V 3~	700mm
AHIR-BI-C-9.0	012-4450	9.0kW; 400V 3~	750mm

#### Technical data

The following indications are valid for the above listed standard types. Due to the function, other types might show different data.

Application range	Adjustment range	0...*...28...85 °C
	Cut-off temperature $\vartheta_{\text{off}}$	110 °C (0-9 K)
	Ambient temperature on switching head	max. 50 °C (T50)
	Thermal switching differential	11.0 K ± 5.5 K
	Ambient temperature for storage and transport	-30...+90 °C
Calibration	Calibration tolerance	± 7 K
	Time factor in water	<45 s

Specification

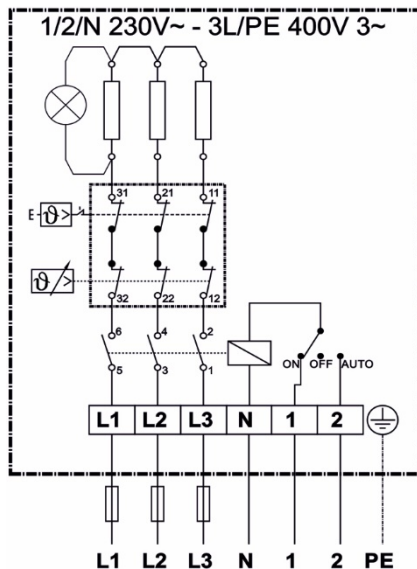
Fitting thread  
 Brass nipple  
 Heating tube Cronifer  
 Heating tube Incoloy 825  
 Surface load  
 Electrical connection  
 Operating pressure  
 Housing cover  
 Housing base  
 Protection mode

R 1½" sonical  
 CuZn40Pb2  
 1.4529, Ø 8.2 mm  
 2.4858, Ø 8.4 mm  
 8-9 W/cm<sup>2</sup>  
 Spring clip  
 10 bar max.  
 Polycarbonate, RAL 7035 (light gray)  
 Polycarbonate, RAL 7016 (anthracite gray)  
 IP41 acc. EN 60529

Fitting notes

The device must be installed horizontally. The heating tubes must be covered entirely by the liquid. The circulation of the liquid shall not be inhibited.

Wiring diagram



**Operating voltage**  
 L1/L2/L3 400 V 3~  
 1/N - 2/N 230 V~

**Clamp 1 = ON**  
 230 V~ connection from power plant  
 or carry current

**Clamp 2 = AUTO**  
 230 V~ connection hp release auxiliary heating

Dimension drawing

