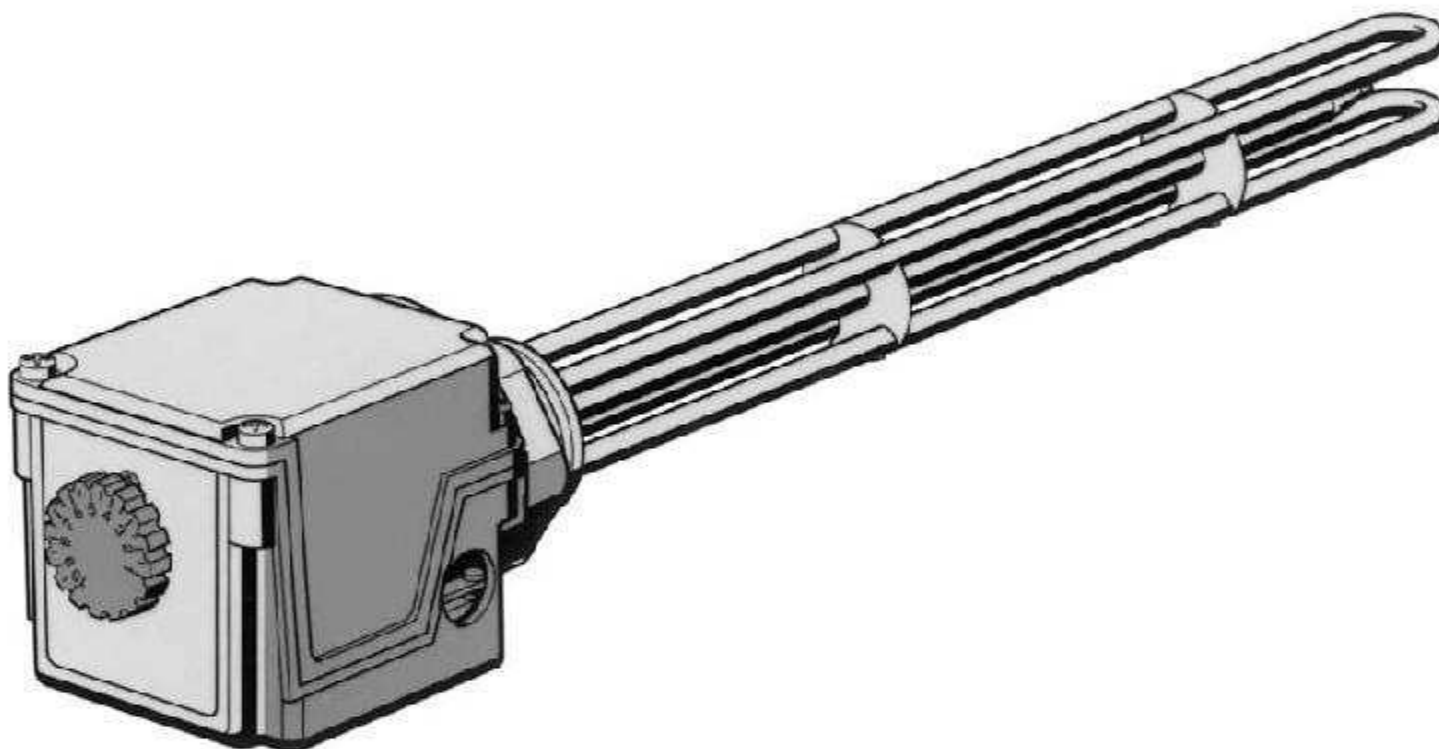


ELTRA  HILZINGER
ELEKTROWÄRMETECHNIK



CALOGEN - IMMERSIONHEATER

Zoppas Industries

Calogen Immersion Heating Elements

Description

Calogen immersion heating elements in accordance with DIN 44922 with G 1½ B thread are a technically mature and economically priced product series for commercial and industrial applications. They are composed of three U-shaped round pipe heating elements made of suitable stainless steel which are brazed into a G 1½ B threaded head of stainless steel. The design fulfills the VDE specifications. Designs with regulator and/or

limiter have a plastic protective cap which is temperature-resistant up to 120°C and provides a degree of protection IP 44. For higher ambient temperatures, our series 403 and 405 with metal protective cap should be used. Calogen immersion heating elements are suitable for heating liquids and gases, e.g. in hot water boilers, commercial coffee machines, commercial

dishwashers, cleaning baths, flow-type heaters, oil baths, radiators, air-conditioning systems etc. The special benefits of Calogen immersion heating elements include:

- high operating safety
- long life
- easy installation
- excellent corrosion resistance
- good controllability

Product range

Deliverable from stock, individually packed in cartons, gasket included.

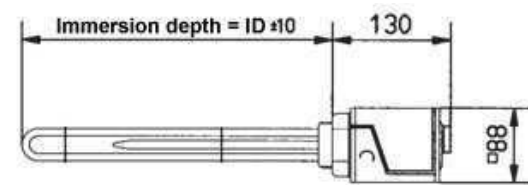
Immersion heating element for water heating





(Washing systems and drinking water)

Pipe material: high corrosion-resistant stainless steel (alloy), material no. 2.4858

Threaded head material: Stainless steel. Operating pressure: 10 bar

Cable gland M 24 (was PG 16)

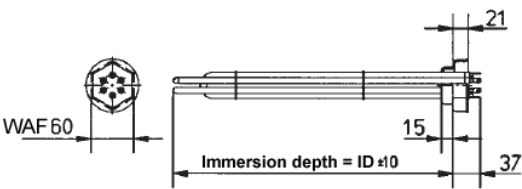







2		Immersio n depth ID	Power con- sumption	Specific load	Unheated length from sealing element mm	Weight approx. Kg	Order no.
		mm	kW	W/cm ²			
	Without cover	175	2	12.5	30	0.5	30179.001.38
	Degree of protection IP 00	235	3	12.5	30	0.6	30178.001.38
	Connection voltage:	335	4.5	12.5	30	0.7	30177.001.38
	3/N/PE AC 230/400 volt	435	6	12.5	30	0.9	30176.001.38
	Electrical connection:	525	7.5	12.5	30	1.1	30175.001.38
	Flat connector 6.3 – 0.8 DIN 2664	625	9	12.5	30	1.3	30031.001.38
	(30031.001.38 has terminal screws)						
	With temperature limiter	175	2	12.5	30	0.85	30179.002.38
	Permanently set to 155°C,	235	3	12.5	30	0.95	30178.002.38
	with plastic protective cap	335	4.5	12.5	30	1.05	30177.002.38
	Degree of protection IP 44	435	6	12.5	30	1.25	30176.002.38
	Connection voltage:	525	7.5	12.5	30	1.45	30175.002.38
	3/N/PE AC 50 to 60 Hz, 400 volt	625	9	12.5	30	1.65	30031.002.38
	Electrical connection: Terminal screws						
	With temperature regulator	175	2	12.5	30	0.85	30179.003.38
	Settable from 0 to 100°C,	235	3	12.5	30	0.95	30178.003.38
	with plastic protective cap	335	4.5	12.5	30	1.05	30177.003.38
	Degree of protection IP 44	435	6	12.5	30	1.25	30176.003.38
	Connection voltage:	525	7.5	12.5	30	1.45	30175.003.38
	3/N/PE AC 50 to 60 Hz, 400 volt	625	9	12.5	30	1.65	30031.003.38
	Electrical connection: Terminal screws						
	With temperature regulator, settable	335	2	12.5	100	0.85	30185.001.38
	from 5 to 75°C and temp. limiter	335	3	12.5	100	0.95	30184.001.38
	Permanently set to 95°C, with	400	4.5	12.5	100	1.05	30183.001.38
	plastic protective cap	500	6	12.5	100	1.25	30182.001.38
	Degree of protection IP 44	600	7.5	12.5	100	1.45	30181.001.38
	Connection voltage:	700	9	12.5	100	1.65	30180.001.38
	3/N/PE AC 50 to 60 Hz, 400 volt 1/N/PE AC 50 to 60 Hz, 230 volt Electrical connection: Terminal screws						

Immersion heating elements for use in

- Alkaline degreasers and similar liquids
- Oil
- Static / moving air

Heating element and threaded head material: stainless steel
Permissible operating pressure: 10 bar



	P e r m i	Immersion depth ID	Power consumptio n	Specific load	Unheated length from sealing element mm	Weight approx. Kg	Order no.
	s	mm	kW	W/cm ²			
	Without protective cap,	460	1,5	2,3	30	0.8	30191.001.31
	Degree of protection IP 00	885	3	2,3	30	1.6	30879.000.31
	Permissible operating pressure: 10 bar	400	3	5,2	30	0.8	30190.001.31
	Electrical connection:	630	4,5	4,8	30	1.2	30189.001.31
	Flat connector 6.3 – 0.8 DIN 2644	800	6	4,9	30	1.6	30188.001.31
(30186.001.31 has terminal screws)		885	9	6,6	30	1.6	30186.001.31
Permissible load for use in heating elements:							
- in liquids (washing suds)				up to 6,6 W/cm ²			
- in oil				up to 4.9 W/cm ²			
- in air (static)				up to 2.3 W/cm ²			
(moving at 5 to 10 m/sec)				up to 6.6 W/cm ²			
Accessories							Order no.
		Lock nut, brass					100 049
		R2" / 1 1/2" pipe reducer, nickel-plated brass					100 759
		Hexagon socket screwdriver for front-side mounting					140 180
		Metal protective cap for degree of protection IP 54 PG 16 cable gland					140 177

Mounting notes

In containers with a wall thickness of 10 mm or more, the immersion heating element can be screwed directly into the wall. With a wall thickness of 10 mm or less, locknuts or welded sleeves must be used. For G2B threaded holes, a pipe reducer is required.

Collar height of reducers: 10 mm. Immersion heating elements with regulator and/or limiter are designed ideally for horizontal installation. If there is a risk of the heating element running dry, additional protection measures (such as an overheat control or a float

switch) are required to cut off the heating element power supply. In reduced spaces, the immersion heating element can be mounted using our hexagon socket screwdriver.

Special designs

To meet your requirements, the heating elements are available with:

- different voltages
- different powers

- different immersion depths or unheated lengths
- different threaded heads or flanges

- thermowell without regulator or limiter
- different pipe shell materials