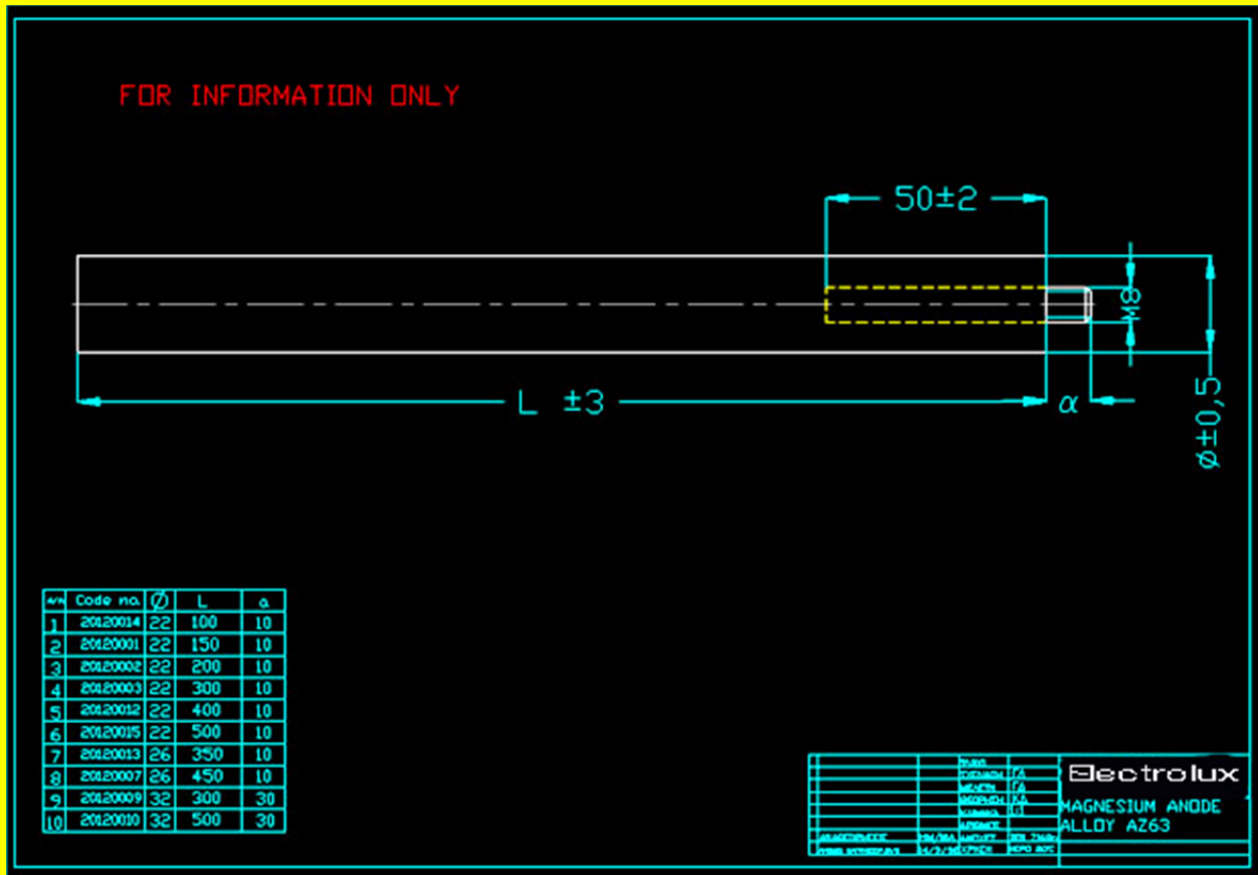


Properties Texnikal Karateristiki Magnezium Anodi



Anodes for Internal Cathodic Protection of Water Heaters

Magnesium anodes are offered for the protection of the water boilers against corrosion that is created by electrolysis.

The major advantages of the magnesium offered by our company are:

1. A large variety of dimensions are always readily available.
2. They are manufactured according to the latest European standards.
3. The relevant Quality Certificate follows every batch.
4. They are offered in the most competitive prices.
5. Packing & packaging details have been taken into account to be handled and stored easily.
6. Special dimensions and properties are possible upon request.

Code	Diameter (mm)	Length (mm)	Weight (gr)	Active surface (cm ²)	Length of thread (mm)
2012-0004	22	100	80	73	10
2012-0001	22	150	116	108	10
2012-0002	22	200	152	142	10
2012-0003	22	300	224	211	10
2012-0012	22	400	300	280	10
2012-0015	22	500	368	349	10
2012-0013	26	350	340	291	10
2012-0007	26	450	449	372	10
2012-0009	32	300	462	309	30
2012-0010	32	500	750	510	30

Properties

PHYSICAL PROPERTIES	THERMODYNAMIC PROPERTIES
1. Atomic number 12	specific heat (solid phase) range: 298 - 923 oK $C_p = 5.33 + 2.45 \cdot 10^{-3}T - 0,103 \cdot 105^{-2}$ (cal/g at · oC).
2. Atomic weight 24.312	Specific heat (liquid phase) range: 923 - 1378 oK $c_p = 7.6$ (cal/g at · oC).
3. Atomic volume 14.0 cm ³ /g · atom	Specific heat (gas) range: 298 - 2000 oK $C_p = 4.968$ (cal/g at · oC).
4. Density at 20 oC 1.74 g/cm ³	Vapour pressure (solid phase) range: 298 - 923 oK $\log p = - 7.78 \cdot 103T - 0.855 \log T + 11.41$ (mm Hg).
5. Density at 650 oC (solid) 1.64 g/cm ³	Vapour pressure (liquid phase) range: 923 - 1378

	$\alpha K \log p = -7.55 \cdot 103T - 1.41 \log T + 12.79$ (mm Hg).
6. Density at 650 oC (liquid) 1.57 g/cm ³	Melting point 650 oC.
7. Electrical resistivity at 20 oC 4.49 MOhms·cm	Boiling point 1105 oC.
8. Thermal conductivity at 20 oC 1.59 W/cm · oC	Latent heat of fusion 88 cal/g
9. Crystal Lattice Close - packed hexagonal	Latent heat of vaporisation 1260 cal/g..
10. Lattice parameters $a_0 = 3.203$ Ao, $c_0 = 5.199$ Ao	General Specifications of alloy AZ 63:
11. Electronic structure (Ne) 3 s ²	Al % - 5,5-6,5 Zn % - 2,5-3,5 Mn % - $\geq 0,15$ Fe % - $\leq 0,005$ Si % - $\leq 0,01$ Cu % - $\leq 0,006$ Ni % - $\leq 0,001$ Be ppm - 4-12 Others total - $\leq 0,20$
12. Standard potential at 25 oC -2.37 V	Al + Zn + Mn + Mg + Si = 99,8820% Sb + As + Pb + Cr + Ni < 0,1% Cd + Hg + Se < 0,01%
	Potential (according to DIN 4753 Teil 6) < -0,900 V (VHSE) Weight loss (according to L. KRUSE) < 30 g/m ² d
	Alloy AZ 63 sacrificial anodes, suitable for cathodic protection, with M8 connecting thread:

