

Description

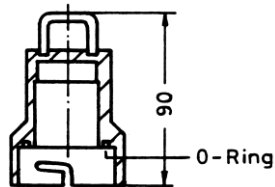
This rod antenna has been designed as transmitting and receiving antenna for the frequency range between 1.5 and 30 MHz. It is particularly suitable for mobile wireless service both at sea and ashore. For logistic reasons it consists of four sections, which can easily and quickly be installed on top of the lead-in insulator. Each antenna section is 1.50 m long. The maximum power rating as a transmitting antenna depends on frequency.

The antenna is non-magnetic.

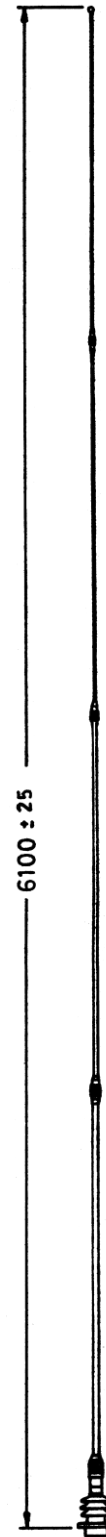
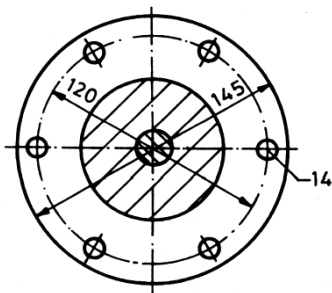
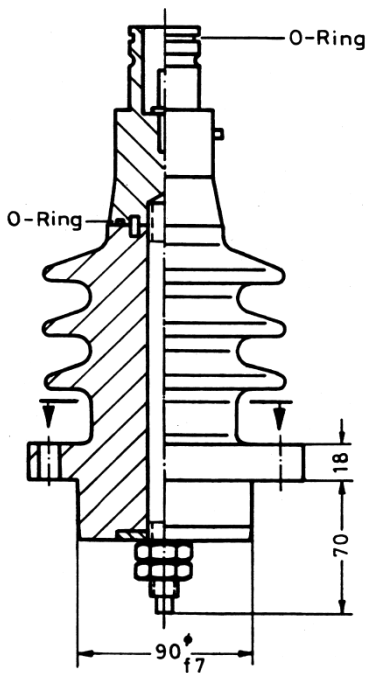
The four antenna sections are manufactured of glassfibre reinforced polyester resin, into which the antenna conductor is embedded. The plug construction, which is our own development, does neither affect the electrical function nor the mechanical rigidity of the antenna. As usual with rod antennas the antenna sections are tapered towards the top. Interchanging them is, therefore, not possible. The lead-in insulator is made of polyethylene and is designed for pressure of up to 60 bar. When not in use or when the vessel is submerged (in case of submarine application), respectively, the antenna must be disassembled and the insulator has to be covered with a special seal-off cap. Due to the materials used the antenna is virtually unaffected by extreme weather conditions and by the usual solvents as well as by aggressive chemicals likely to be encountered under rough operating conditions.

The antenna radiates with vertical polarization. Its horizontal pattern is omnidirectional. The antenna impedance is capacitive up to frequencies of about 11 MHz.

Sealing Cover



Isolator D1



Section B1

Section B2

Section B3

Section B4

Isolator D1

Spare Parts List

Position	Designation	Order-Code
1 Section B1	Antenna rod STA 60 Z 70	E 107-876
1 Section B2	Antenna rod STA 60 Z 70	E 107-877
1 Section B3	Antenna rod STA 60 Z 70	E 107-878
1 Section B4	Antenna rod STA 60 Z 70	E 107-879
2	Isolator D1	E 107-880
3	Sealing Cover	E 107-881

STA 60 Z 70

Technical Specification

Mechanical Data

Construction:	self-supporting rod antenna non-magnetic
Material	
Lead-in insulator	UV stabilized plastic material
Antenna sections	glassfibre reinforced polyester (conductor embedded)
Antenna conductor	stranded wire of tinned electrolytic copper 4 mm ² , 56 x 0,3
Connecting armatures	stainless steel
Max. wind speed	200 km/h
Max. deflection of top at 150 km/h	approx. 1,5 m – even under severe shocks and heeling motion
Max. bending moment at Mounting point	80 daNm
Resistance against seawater and chemicals	unaffected by seawater, exhaust gas, carbon disulphide, benzene, petrol, diesel fuel, heavy oil, grease, salts, sulphuric acid, trichloroethylene, and acetone under circumstances likely to be encountered on board
Ambient temperature	- 40...+ 70° C
Storage temperature	- 40...+ 80° C
Compressive Strength of Lead-in insulator	60 bar
Ice formation	negligible
Mould growth and microbes	not any effect

STA 60 Z 70

Dimensions and Weights

Length total	6100 mm \pm 20 mm	
Weight total	10,6 kgs	
Insulator D1 incl. seal-off cap	260 mm	3.3 kg
Section B1	approx. 1480 mm	c. 0.3 kg
Section B2	approx. 1495 mm	c. 1.0 kg
Section B3	approx. 1510 mm	c. 1.6 kg
Section B4	approx. 1525 mm	c. 4.4 kg
Mounting	flange of \varnothing 145 mm, bore hole circle of \varnothing 120 mm and 6 bore holes of \varnothing 14 mm	
Tightening torque on base flange	20 Nm	

Electrical Data

Application	receiving and transmitting antenna
Frequency range	1,5 - 30 MHz
Max. RF power	500 W
Polarization	vertical
Horizontal pattern	omnidirectional
Static capacity	approx. 80 pF (depending on location of mounting)