" EDDYSTONE " High Frequency and Ultra High Frequency components and equipment are guaranteed of first class workmanship and materials. A keen and personal interest is taken in their production.

Their design for high frequency requirements is based on years of specialisation in this technique and is the combined effort of an expert staff who are high frequency engineers of proved ability.

The use of well designed and efficient parts is essential in H.F. and U.H.F. circuits if consistently good results are to be obtained. We confidently recommend " EDDYSTONE " apparatus with the knowledge that it will give reliable and highly satisfactory service.

STRATTON & CO., LTD.,
Alvechurch Road,
West Heath,
Birmingham, 31.

Telephone : PRIory 2229.
Telegrams and Cables : " Stratnoid."

D.L.9 INSULATING MATERIAL

AVERAGE FIGURES.

MECHANICAL PROPERTIES.

Impact Strength (Foot pounds)	0·17 — 0·21
Cross Breaking Strength (lbs. sq. in.)	8,500 —10,000
Tensile Strength (lbs. sq. in.)	6,000 — 7,000
Ultimate Crushing Stress (lbs. sq. in.)	22,000 —27,000
Brinell Hardness (125 kgms. on 5 mm. ball)	48 —52
Specific Gravity	1·65
Weight per cubic inch	27 gms.—·95 ozs.
Modulus of Elasticity in Compression (lbs./sq. in.)	6·5 — 7·5 × 10^6
Blister Temperature	150° C.

ELECTRICAL PROPERTIES.

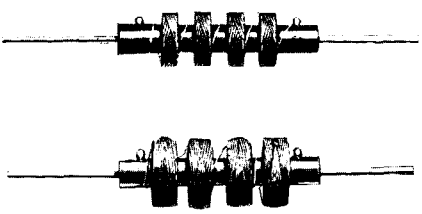
Power Factor at 800 cycles	3·0 — 4·0%
Volume Resistivity at 20° C. (Megohms cm.³)	10^6 — 10^7
Surface Resistivity at 20° C. (Megohms cm.²)	
(a). Freshly moulded	10^6 — 10^7
(b). After 24 hrs. in water	10^6 — 10^7
Electric Strength at 90° C. (V. mil)	260 — 300
Electric Strength at 20° C. (V mil.)	300 — 320
Moisture Absorption (24 hrs. immersion) (Specimen 1½in. by 1 in. by ⅛in.).	·10 — ·15%
Moisture Absorption (B.S.S.771)	20 — 40 mgms
Specific Inductance Capacity	5·3 — 5·3

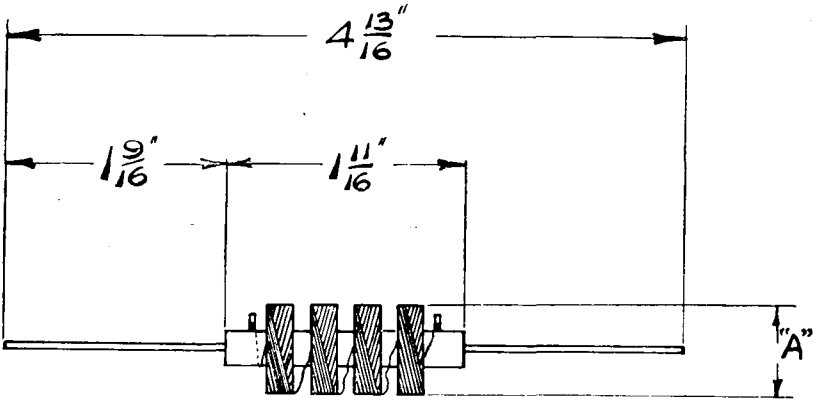
COLOUR.

Black or Natural.

EDDYSTONE
SHORT WAVE
HIGH FREQUENCY CHOKES

CAT. Nos. 1022 and 1010.



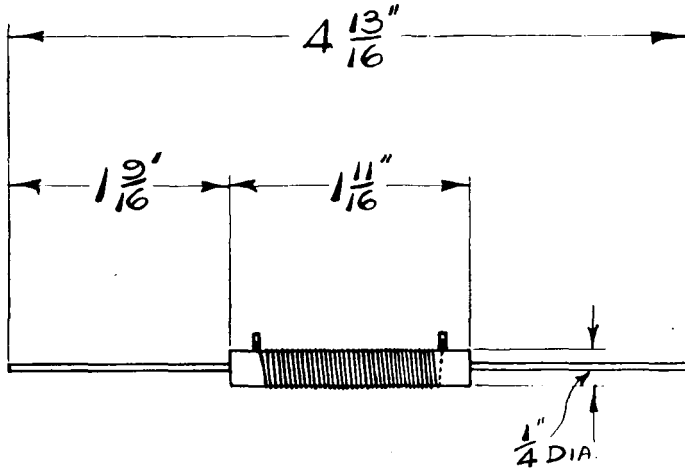


These Chokes utilise the "EDDYSTONE" patented end connection, eliminating the usual form of metal end cap with its associated defects, such as, shorted turn at each end, or loops placed in the field of the choke. Windings are so arranged to give minimum self capacity and small external field. The coils are treated to protect them from moisture and to ensure rigidity.

	1010	1022
Dimension "A" ...	15/32"	... 5/8"
Inductance ...	1·25 m/h.	... 1·5 m h.
D.C. Resistance ...	20 ohms.	... 10·53 ohms
Natural Wavelength	81·62 metres	... 115·4 metres
Self Capacity ...	1·5 mmfd.	... 2·5 mmfd.
Current Capacity ...	50 m a.	... 250 m/a.
Tropical Use	Can be suitably treated.	
Weight	0·252 ozs.	... 0·49 ozs.

EDDYSTONE
HIGH FREQUENCY CHOKE

CAT. No. 1011.



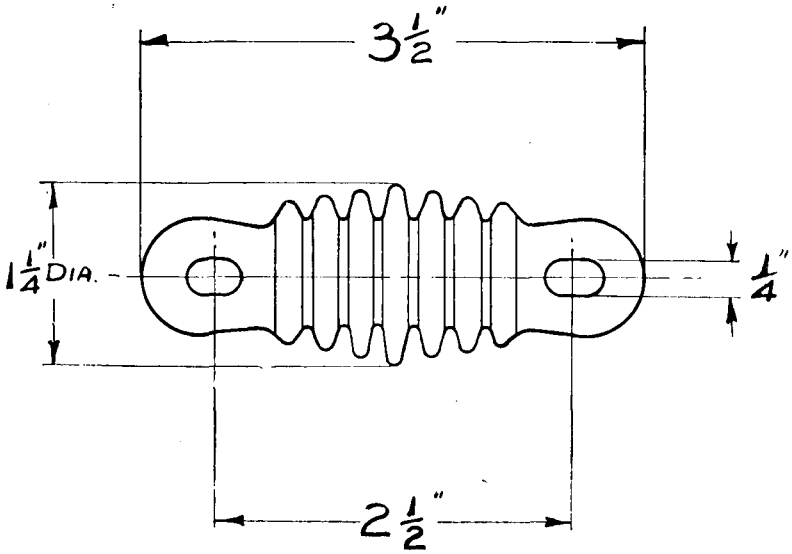
This Choke, which uses the "EDDYSTONE" patented end connection has, as a result, no end metal cap or shorted turn, or loop in the field of the Choke. The self capacity is extremely low, and due to its light weight the Choke may be mounted in the wiring system by means of the wire ends.

It is single layer wound on a similar former to the 1022 and 1010 Chokes.

Inductance	...	5·32 m/h.
D.C. Resistance	...	1·33 ohms.
Natural Wavelength		Negligible.
Self Capacity	...	Negligible.
Current Capacity	...	50 m/a.
Tropical Use	...	Can be suitably treated.
Weight	... ...	0·125 ozs.

EDDYSTONE
AERIAL STRAIN INSULATOR

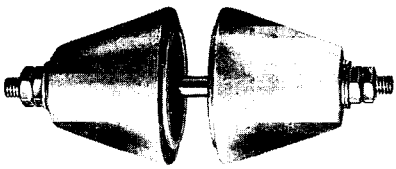
CAT. No. 999.

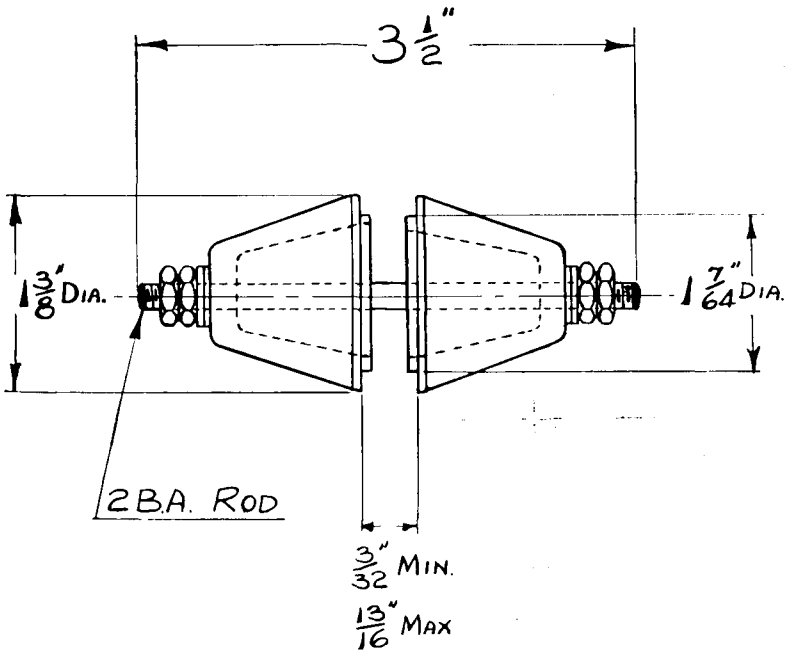


This Insulator, which is made of Steatite ceramic material, has a length of $3\frac{1}{2}$", and is so shaped that it gives an exceptionally long leakage path combined with a relatively high breakage strain which is in excess of 400 lbs. It is also light in weight, and is suitable for both transmitting and receiving aerials. Weight, 2·54 ozs.

EDDYSTONE LEAD THROUGH INSULATORS

CAT. No. 1018.



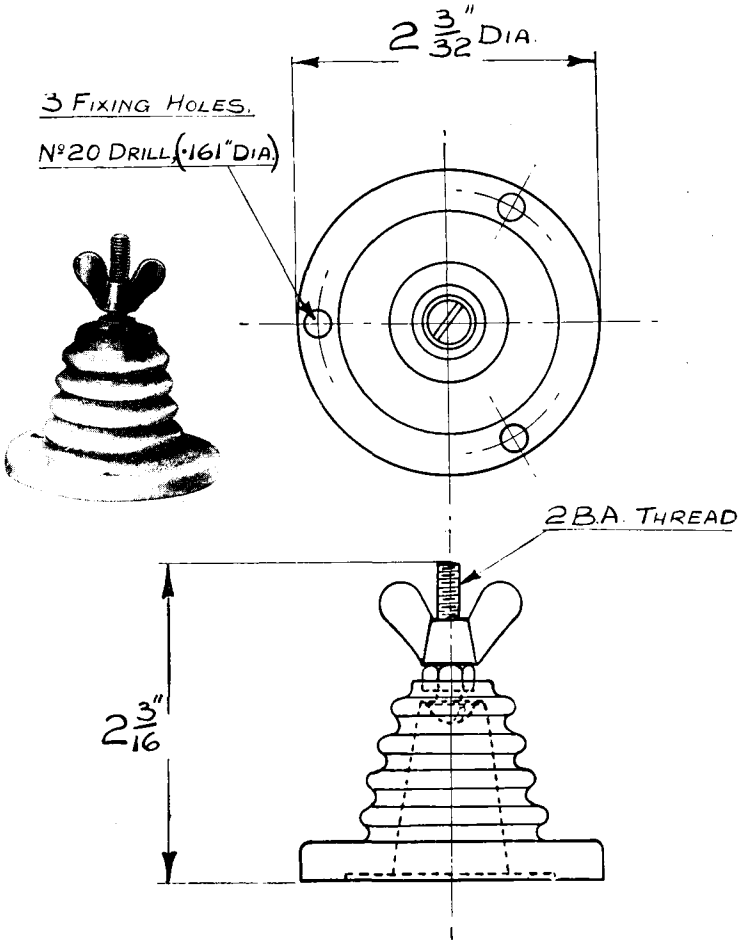


This Frequentite Insulator has been primarily designed to facilitate the carrying of high frequency leads through metal chassis and screens with the minimum of loss.

The cones are of glazed Frequentite flanged at the bottom to self-centre into the metal at each side. A 2 B.A. rod is used as the conductor and is provided with locking nuts at each end located against lead washers to prevent breakage of the cones under pressure when installing. Weight, 2·60 ozs.

EDDYSTONE
STAND-OFF INSULATORS

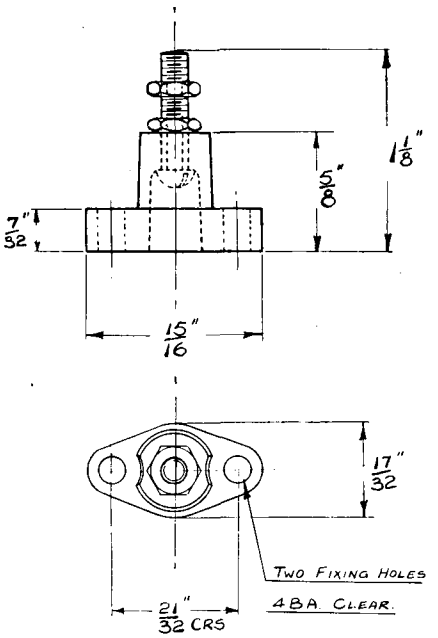
CAT. No. 916.

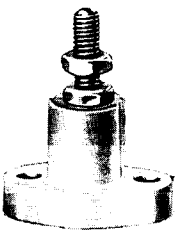


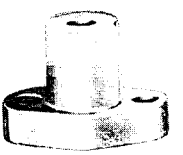
The Eddystone Stand-off Insulator will be found ideal for mounting transmitting inductances, meters, spacing inside aerial feeders, and in fact, for all insulating purposes where high voltage has to be carried. Made of special quality vitreous porcelain, finished in glossy white with a hollow centre, and the exterior so shaped as to form an exceedingly long leakage path, giving at the same time additional mechanical strength. It is supplied with 2 B.A. terminal wing nut, all metal parts being heavily nickel plated. The base has 3 holes to allow the use of bolts or screws to secure a permanent fixing. Weight, 2·38 ozs.

EDDYSTONE MIDGET STAND-OFF INSULATOR

CAT. No. 1019.

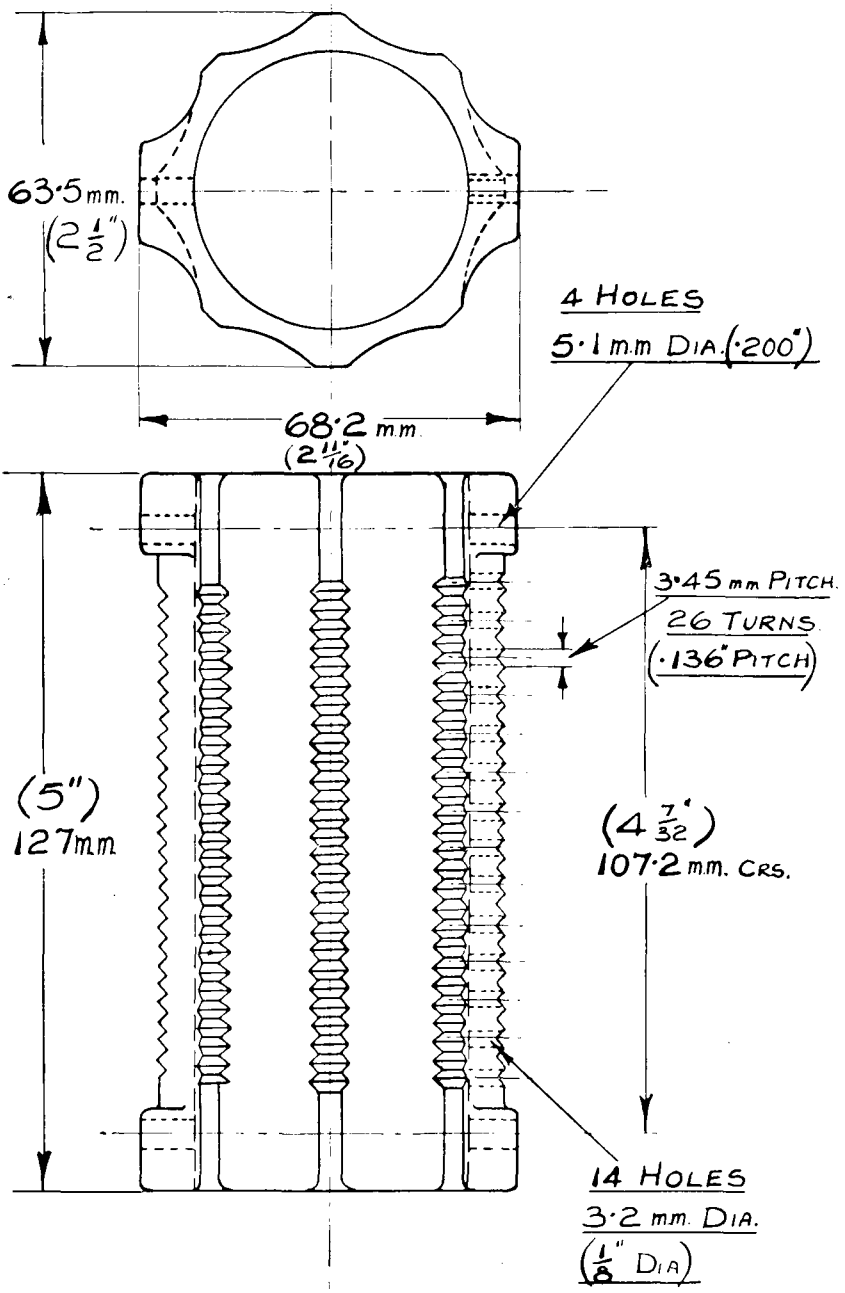






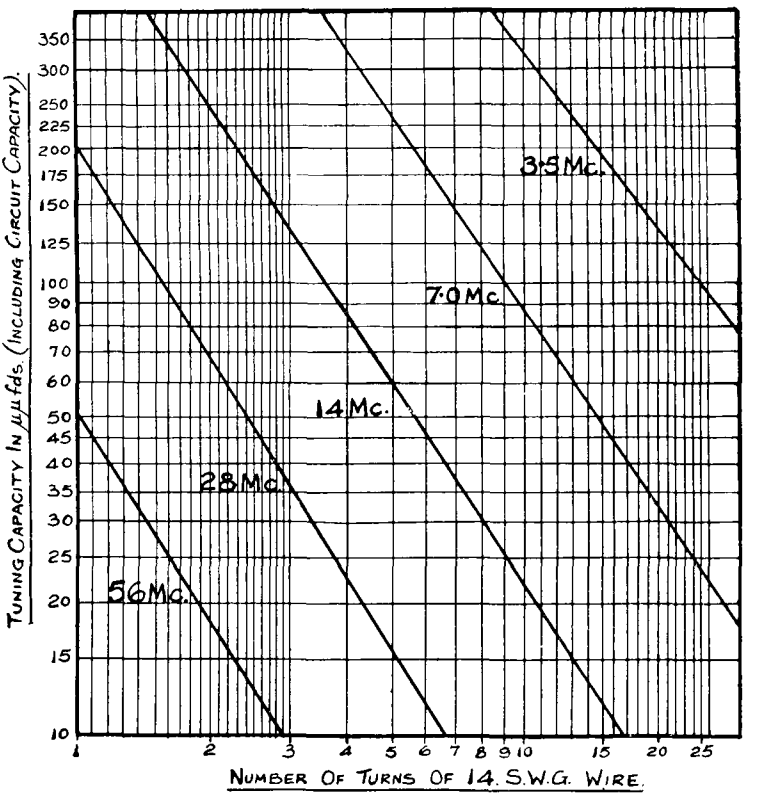
A midget Frequentite ceramic Insulator having small physical dimensions and high insulation properties together with very low power factor losses, making it extremely useful in modern design. The brass parts are heavily nickel plated and this insulator can be supplied with or without metal parts as required. Weight, 0·23 ozs.

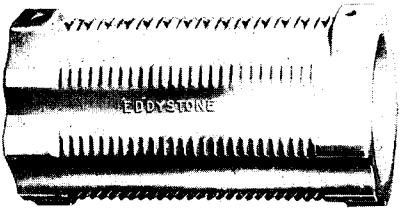
EDDYSTONE TRANSMITTING COIL FORMER CAT. No. 1090.



A glazed Frequentite ceramic Former designed to facilitate the construction of efficient inductances for transmitting, and similar high frequency apparatus. Spiral grooves take 26 turns of wire up to 12 gauge, 14 holes being provided for leads and tapping connections. Various methods can be utilised for mounting the Former, the holes in each end being particularly suitable and allowing individual ideas to be applied.

NUMBER OF TURNS FOR EDDYSTONE TRANSMITTING FORMER No. 1090





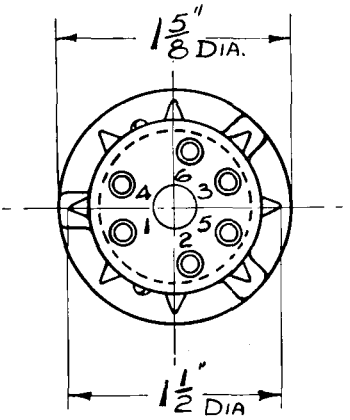
The number of turns of No. 14 S.W.G. Wire to wind on the Eddystone Transmitting Former to obtain a given L C ratio may be obtained directly from the graph, if the value of the total tuning capacity has been decided. This capacity value is not critical—a variation of 20% can sometimes be tolerated—but must be correctly chosen or power output and efficiency will suffer.

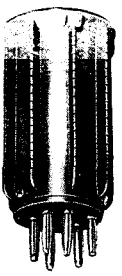
The number of turns is read directly off the graph for the given capacity from the line corresponding to either the 5, 10, 20, 40 or 80 metre band.

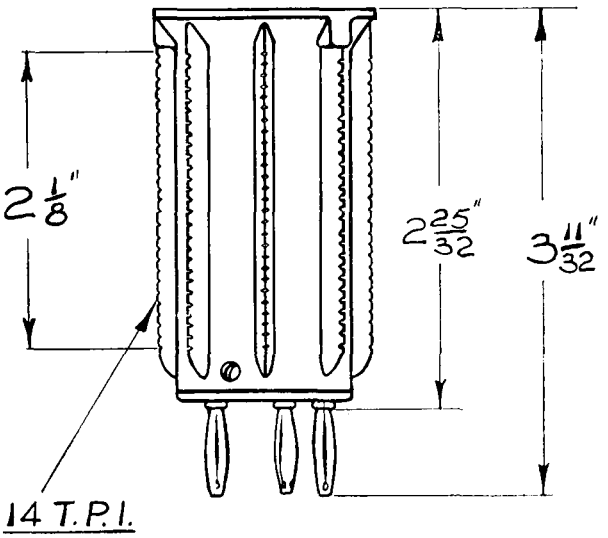
The capacity value used includes the circuit and valve capacity, and its value should be decreased by about 10% to give the actual capacity value as set by the tank condenser. As an example we will assume that a total value of 60 mmfd. has to be used in a tank circuit operating on the 14 Mc s band. We see that we should wind 5 turns on the Coil Former, and the tank condenser would be set to about 60 mmfd.—10% or 54 mmfd. In which case an Eddystone Transmitting Condenser, Cat. No. 1078, would be suitable. Weight, 12·25 ozs.

EDDYSTONE
6-PIN COIL FORMERS

CAT. Nos. 1002 & 1003.



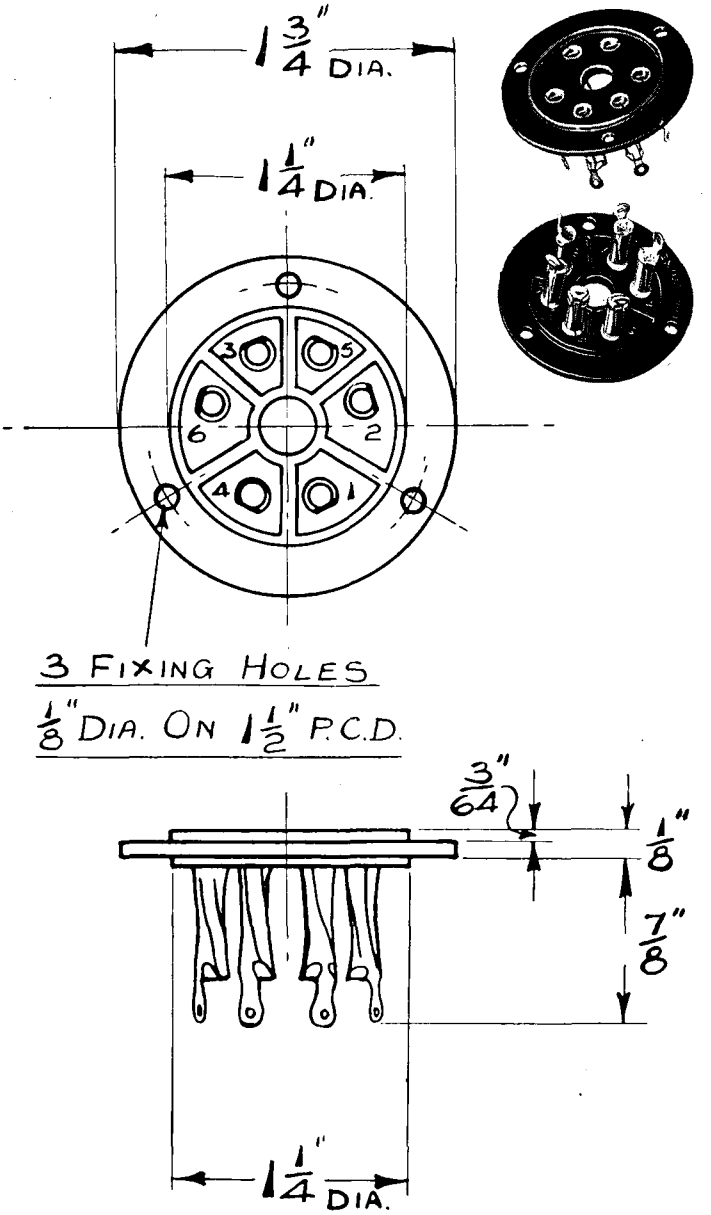




These Coil Formers utilise a D.L.9, eight ribbed moulding, with an outside diameter of 1⅝" and a winding space of 2⅛". They are particularly useful for the construction of efficient low loss inductances for receivers and low powered transmitters. The pins are resilient and plated to ensure good electrical contact, the base being removable to facilitate winding and connection to the pins. Type 1002 is supplied plain, and 1003 is the same former threaded 14 turns per inch. Both coils fit the coil base, Cat. No. 964. Weight, 1·6 ozs.

EDDYSTONE
6-PIN COIL BASE

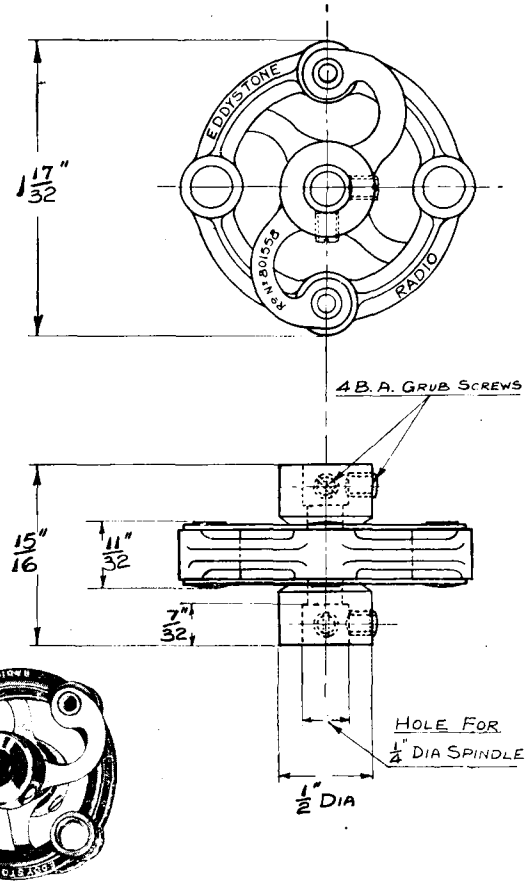
CAT. No. 964.

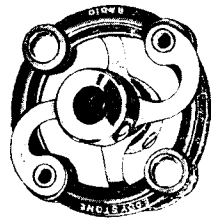


A 6-pin Coil Base in moulded D.L.9 material offering high insulation, and particularly suitable for Short Wave Receiver construction. The moulding is ribbed between the sockets to increase the leakage path and prevent losses, and at the same time gives additional mechanical strength. The sockets are of one piece construction heavily silver plated, ensuring good electrical contact free of noise, and are provided with specially shaped ends to facilitate soldering. Three 6 B.A. fixing holes are provided in the moulding. Weight, 0·34 ozs.

EDDYSTONE
FLEXIBLE COUPLER

CAT. No. 1009.

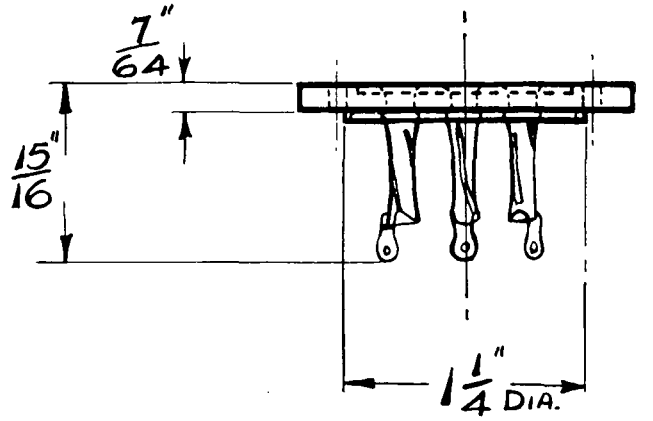


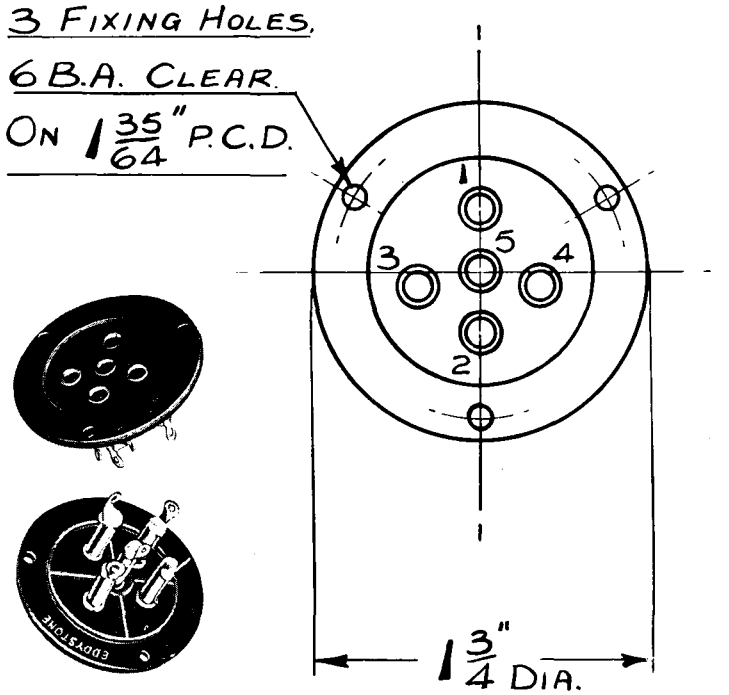


This Coupler has been designed to be quite flexible yet free from backlash. The spring metal arms are of phosphor bronze and so arranged that the unit facilitates the lining-up of the coupled component to obtain a smooth free drive. The metal bushes are reamered for ¼" spindles, each being provided with two cadmium plated 4 B.A. grub screws 90° apart, so that a firm setting may be obtained on the respective shafts. The insulation and gap between the two halves is sufficient for voltages in the region of 2,000, making it extremely useful for transmitting equipment. The *maximum* recommended torque is 3,500 grms cms. Weight, 0·72 ozs..

EDDYSTONE
5-PIN VALVEHOLDER

CAT. No. 954.

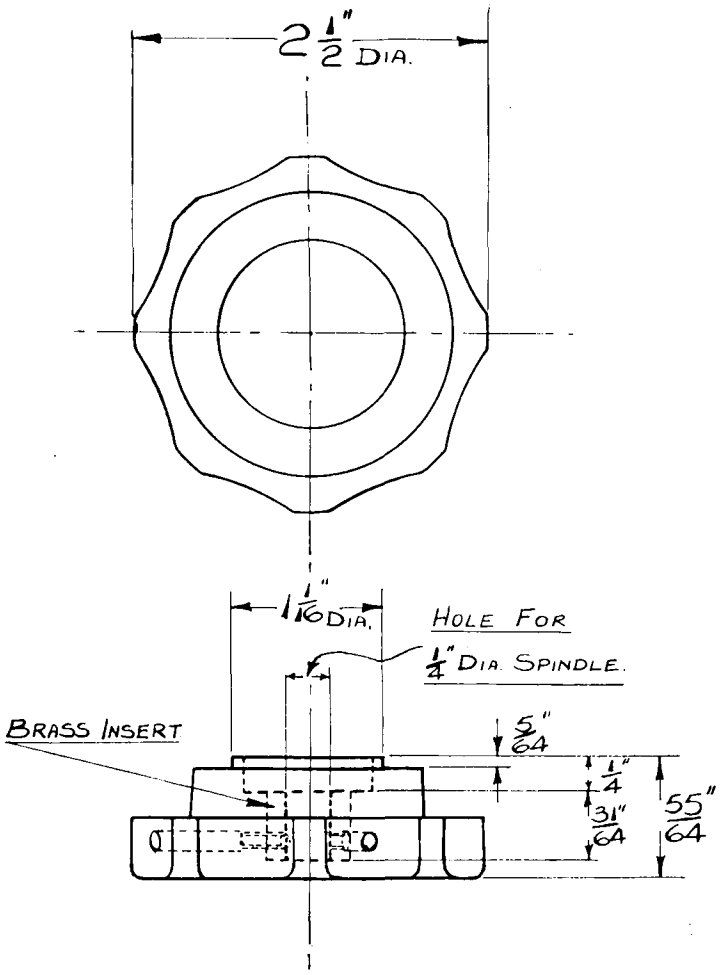




A 5-pin chassis mounting Valveholder, moulded in D.L.9 insulating material which makes it highly suitable for Short Wave apparatus. Special ribs are provided to prevent leakage between sockets, and giving additional mechanical strength. The sockets are on the rolled type, and have been specifically designed to grip the valve-pins upon insertion. The valve should accordingly be inserted firmly. The sockets have specially shaped ends to facilitate soldering and are heavily silver plated, ensuring good electrical contact. Being of one piece-construction, the chance of noise through separate pieces being joined together is obviated. Weight, 0·37 ozs.

EDDYSTONE
2½" INSTRUMENT KNOB

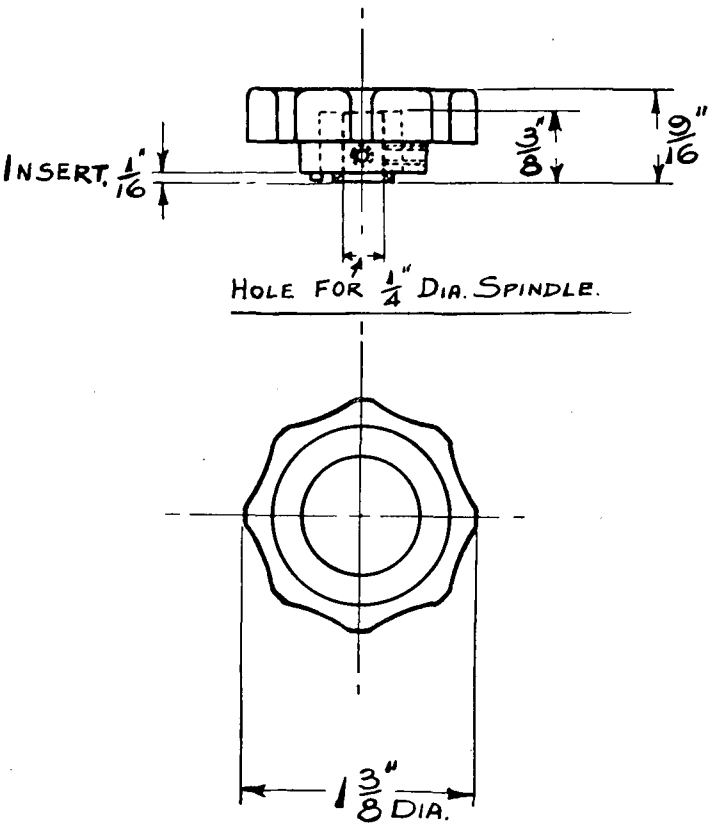
CAT. No. 1076.



A high grade Instrument Knob of polished black bakelite, moulded to allow positive finger grip and steady control. This knob is fitted with a substantial brass insert which is reamered to take a ¼" spindle and provided with two cadmium plated 4 B.A. grub screws placed 90° apart, so that a positive setting may be obtained on the instrument spindle. Weight, 2·06 ozs.

EDDYSTONE INSTRUMENT KNOB

CAT. No. 1089.



A high grade Instrument Knob of polished black bakelite fitted with brass insert which is reamered to take a $\frac{1}{4}$" spindle. Two cadmium plated 4 B.A. grub screws are provided 90° apart, to give a positive setting to the instrument spindle. This knob is a miniature replica of our type 1076, and will find many applications in modern equipment. Weight, 0·55 ozs.

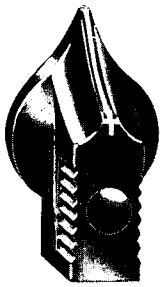
EDDYSTONE INSTRUMENT KNOB

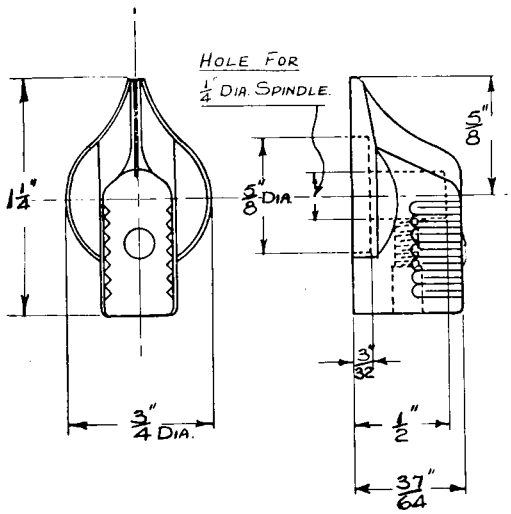
CAT. No. 1086.

A competitive component, being a similar Knob to our 1089, but without the brass insert and fitted with one grub screw only. For use on $\frac{1}{4}$" spindles. Weight, 0·37 ozs.

EDDYSTONE
POINTER KNOB

CAT. No. 1044.

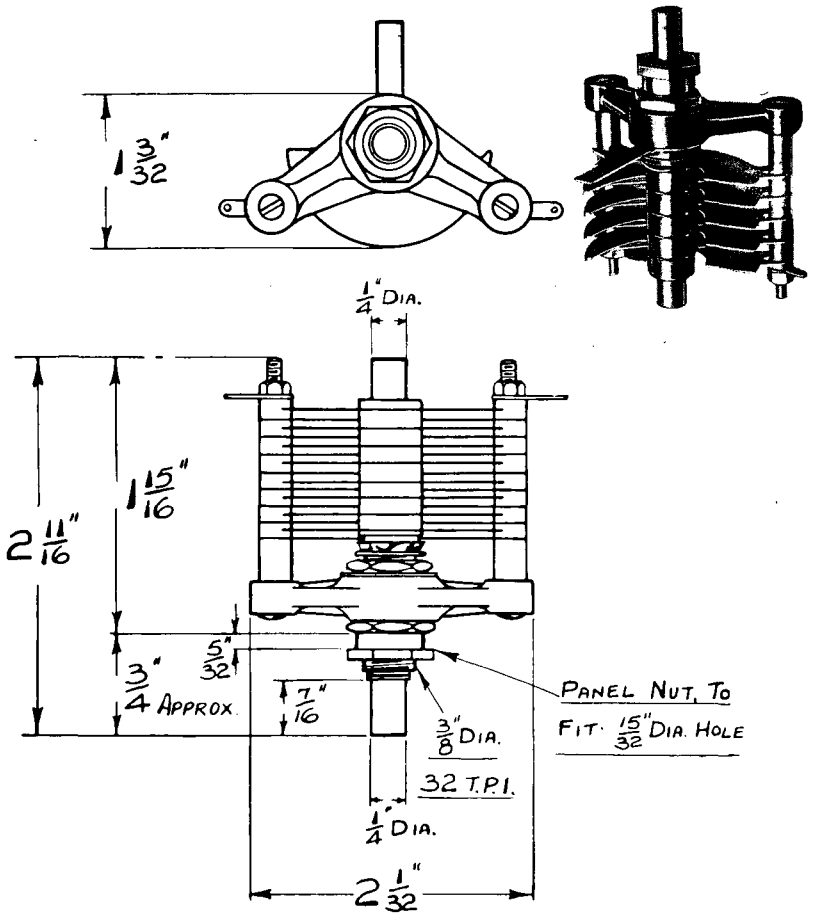




A small and attractive black polished bakelite Knob for $\frac{1}{4}$" spindles, provided with a cadmium plated 4 B.A. screw giving positive fitting and control. Moulded to give a fluted grip, and tapering pointer with engraved white line. It will find many uses, where a neat and elegant control knob is required. Weight, 0·17 ozs.

EDDYSTONE MICRODENSERS

Nos. 1094, 1129, 1093, 1130 & 1131



The Eddystone Microdensers need no introduction as they have been used by Manufacturers and Experimenters in considerable quantities, and the design has been steadily improved over a number of years.

P.T O.

EDDYSTONE MICRODENSERS

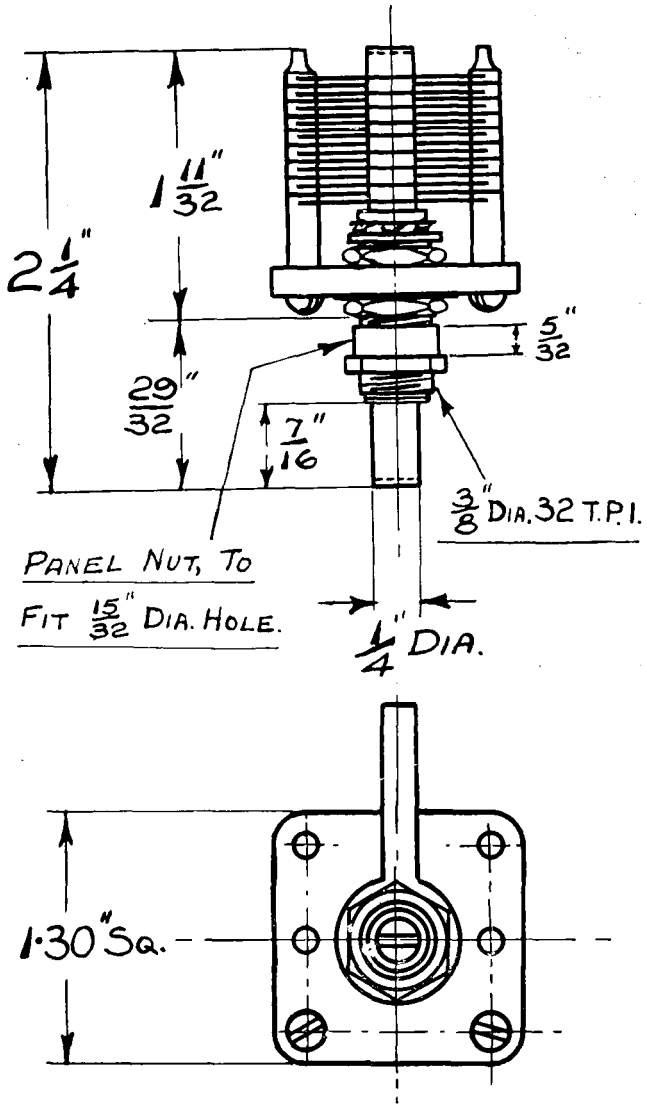
Nos. 1094, 1129, 1093, 1130 & 1131

The construction is of brass, with all vanes soldered to give low series resistance at high frequency, and chemically treated and lacquered to prevent oxidization. The design ensures constantly maintained capacity due to the use of a substantial D.L.9 end-plate which carries a heavy bush for the rotor. This is noiseless in movement mechanically and electrically and the $\frac{1}{4}$" diameter spindle is extended to facilitate ganging, which may be undertaken with confidence as the capacity is matched to close limits. Soldering tag connections are provided and in the case of Nos. 1094 and 1129 double spacing is used, enabling these Condensers to be used for transmitting work. In all sizes of Microdensers the minimum capacity has been maintained to a very low figure. The bearing support for the rotor is more than adequate for the load imposed. Single hole fixing can be utilised, the Condenser being provided with a suitable spigot nut for mounting.

Micro-denser No.	No. of Air Gaps	Minimum Capacity mmfd.	Capacity Swing mmfd.	Flashover Voltage Volts D.C.	Weight ozs.
1094	8	5	15	3500	2·87
1129	10	5	37	2300	3·03
1093	15	6	56	2300	3·42
1130	14	5	95	1000	3·25
1131	22	—	—	1000	3·89

EDDYSTONE
AIR DIELECTRIC TRIMMING CONDENSER

CAT. No. 404. Replaces Cat. No. 1013.

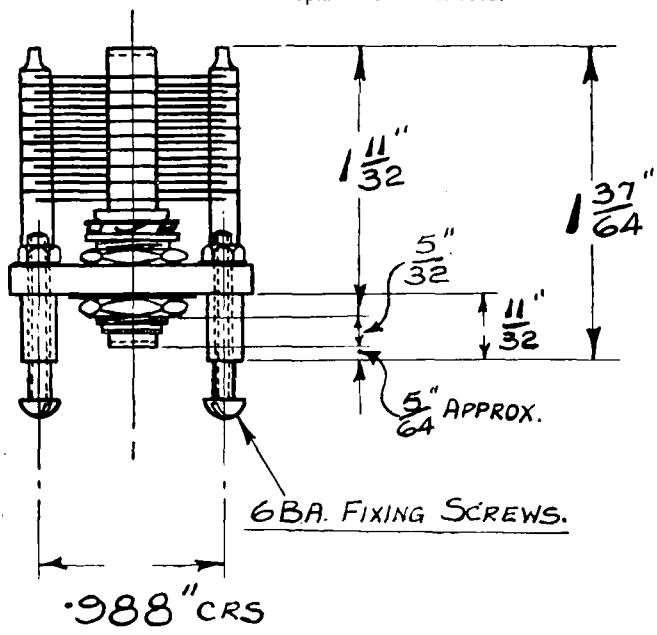


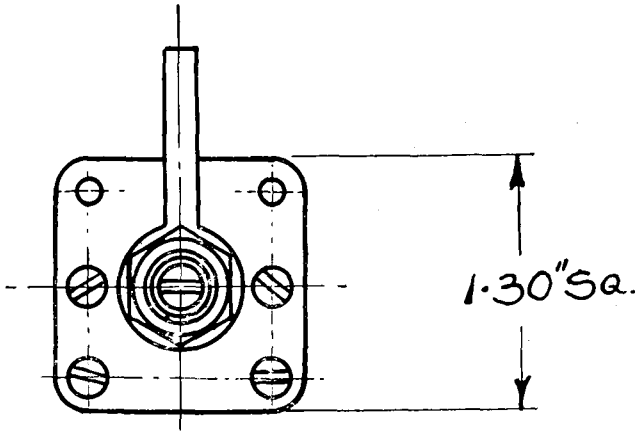
An Air Dielectric Trimmer Condenser for general trimming purposes similar to the type 403 and having the same form of construction, but provided with a long spindle, and made for single hole panel mounting, a spigot panel nut being incorporated.

Minimum Capacity. 5 mmfd.
Capacity Swing. 55 mmfd.
Number of Air Gaps. 14.
Weight. 2·24 ozs.

EDDYSTONE AIR DIELECTRIC TRIMMING CONDENSER

CAT. No. 403. Replaces Cat. No. 978.
402 replaces Cat. No. 1013.



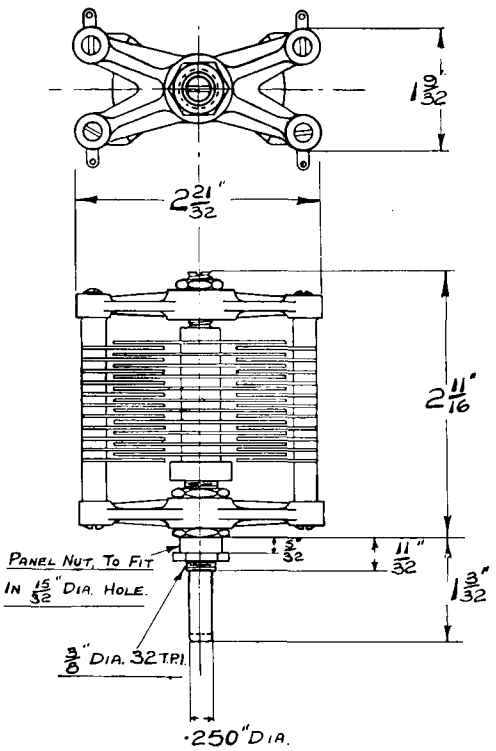


A variable Air Dielectric preset Condenser for general trimming purposes, of small physical dimensions, utilising a ceramic end-plate. The brass rotor and stator vanes are soldered to reduce series H.F. Resistance, and are chemically treated and lacquered to prevent oxidization. The rotor spindle is ¼" diameter, slotted at both ends for adjustment purposes and provided with a substantial bearing with single pointer contact soldering type tag connector. Two brass pillars and 6 B.A. screws are provided for mounting the Condenser.

Minimum Capacity. 5 mmfd.
Capacity Swing. 55 mmfd.
No. of Air Gaps. 14.
Weight. 2·05 ozs.

EDDYSTONE
SPLIT STATOR CONDENSER

CAT. No. 339.



A Variable Air Condenser suitable for Laboratory Work, being a solidly built component, with the mechanical construction so carried out that the capacity characteristics can be relied on to remain constant over a considerable period of time. Heavy brass Vanes are individually soldered to the supports, thus reducing high frequency losses, and chemically treated and lacquered to prevent oxidization. The rotor vanes are soldered to a one piece spindle which is mounted on ball-bearings, the end of the shaft being reduced to ¼", and also slotted for screw-driver adjustment. The Stators are mounted on substantially moulded D.L.9 insulation end-brackets, which are webbed to withstand thrust and side strains, connection being made by means of soldering tags as shown. This Condenser is provided with a spigot nut for single hole panel mounting.

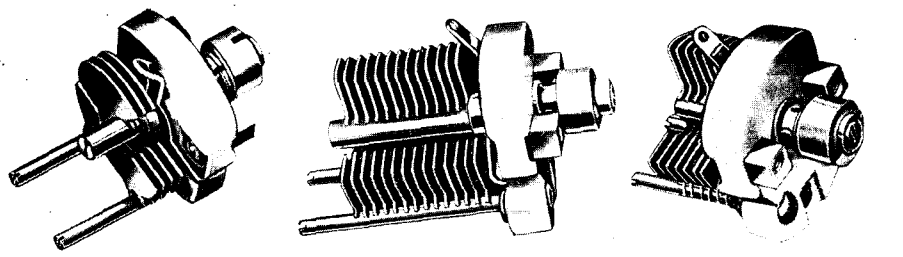
Various capacities can be obtained, for example :—

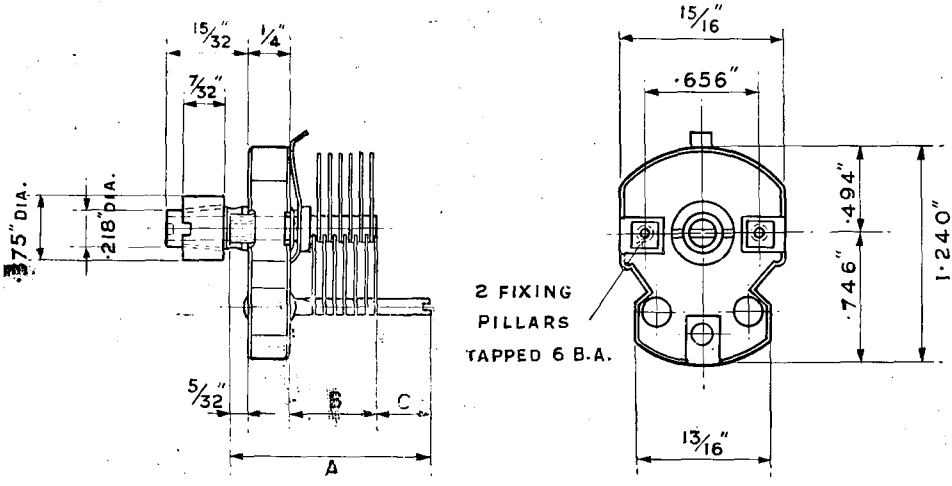
When used as a series gap condenser, Minimum capacity 3 mmfd.,max. 50 mmfd.
Using rotor and one side, Minimum capacity 2 mmfd., max. 100 mmfd.
With two sides in parallel, Minimum capacity 4 mmfd., max. 200 mmfd.

Number of Air Gaps. 21.
Breakdown Voltage. Parallel 700 volts, Series 1,400 volts.
Capacity Tolerance. 5%
Weight. 8·4 ozs.

EDDYSTONE PREFERRED TYPE AIR DIELECTRIC TRIMMERS

TYPES S.456, S.457, S.458 and S.459.





These midget condensers, mainly constructed of brass, but having a phosphor-bronze tension spring, are in silver plated finish. All vanes are soldered, ensuring low series resistance at high frequencies.

A substantial glazed steatite base carries a split bush fitted with a collar for locking the rotor assembly, the front end of which is slotted for adjustment. The rotor is silent in action mechanically and electrically and due to the very rigid form of construction, capacity can be set and maintained over prolonged periods to narrow limits.

A soldering tag provides the means of connection to the rotor, the tag being an extension of the tension spring. The extended side rods of the stator assembly are slotted to make convenient points for connection in a similar manner.

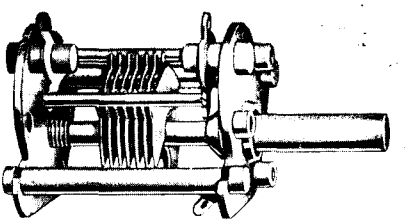
Mounting is covered by the provision of two studs rivetted to the frequentite base and tapped 6 B.A.

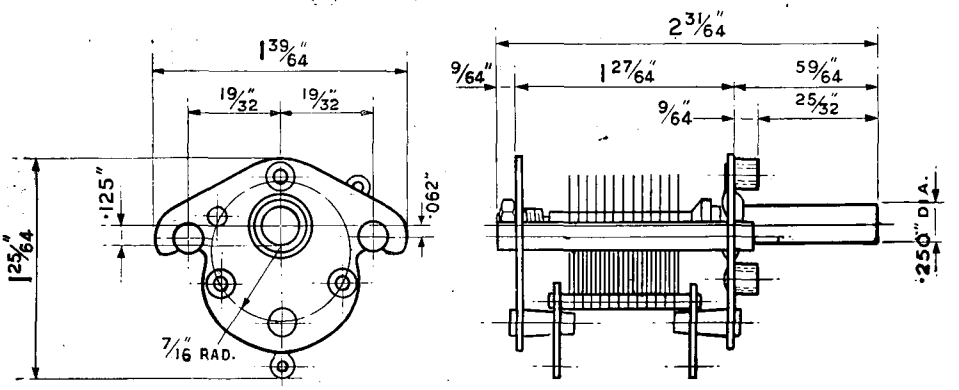
Rotor to stator spacing throughout the range is .015", and capacity variation less than 10 per cent. of the stated value.

Condenser.	Min. Cap.	Cap. Swing.	Weight.	Dimensions. A	B	C
S.456	3·5	21·5	·875 ozs.	1·1/32"	9/32"	11/32"
S.457	4·0	46·0	1·03 ozs.	1·7/32"	7/16"	3/8"
S.458	4·5	70·5	1·23 ozs.	1·3/8"	21/32"	11/32"
S.459	4·8	95·4	1·33 ozs.	1·5/8"	29/32"	11/32"

EDDYSTONE PREFERRED TYPE AIR DIELECTRIC TRIMMER

TYPE 50 uuf., S.462.





3 EQUIDISTANT FIXING BUSHES TAPPED 6 B.A.

This is a variable condenser of all brass construction, silver plated throughout, having metal end plates which incorporate a single ball thrust bearing at the back, and ball bearings at the front, the spindle and front plate forming the seating.

The stator assembly is independently mounted on tags through which steatite supporting pegs are fitted. Connection to rotor and stator assemblies being made by means of built in soldering tags for the stator, and an extension of the bearing tension spring in the case of the rotor.

The spindle is of standard $\frac{1}{4}$" diameter, slotted for adjustment purposes, and the design has ensured that movement is mechanically and electrically silent.

The condenser is mounted by means of three 6 B.A. tapped studs fitted to the front endplate which allows a very rigid mounting to be made with the minimum of trouble.

All vanes are soldered, and the spacing between Rotor and Stator vanes is ·015".

Minimum Capacity. 4 uuf.

Capacity Swing. 46 uuf.

Weight. 1·98 ozs., approx.