



G.N.T.Co. TRANSMITTER MODEL 112

*When ordering, please state—*

- (1) voltage of supply,*
- (2) whether supply is alternating or direct current,*
- (3) whether tape is 12 mm or 9.5 mm wide.*

G. N. T. Co. TRANSMITTER  
MODEL 112  
INCORPORATING  
SPEED REGULATOR MODEL 2042

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**T**HIS Wheatstone transmitter, which is capable of working direct to line, embodies the following outstanding features:

(1) A speed range of 13—250 words per minute covered, without gear changes and without stopping the motor, by turning a single dial.

(2) The speed is governed at all settings, variations being smaller than  $\pm \frac{1}{2}$  per cent. and supply voltage variations have no effect on the constancy of the speed.

(3) The working speed can be read directly from 15—240 w.p.m., and when returning to any speed setting after a temporary excursion to a different setting, exactly the same speed as before is always obtained.

(4) A specially designed contact mechanism ensures perfect contact making with a very short transit time and complete absence of rebound.

The transmitter mechanism, the speed regulator, and the motor, are all mounted on the main base. The transmitter mechanism is held in slides on the base and is secured by a clip to enable easy removal, this also being facilitated by the electrical connections between the mechanism and the base being made by means of jacks.

A pair of coupled switches are placed on the front face of the base directly under the transmitter mechanism. In the

"off" position the current to the motor is switched off, and the line is connected to key line. In the "on" position the mains are connected to the motor, and the line is connected direct to the transmitting mechanism.

The switch coupling bar also operates a clutch which uncouples the transmitter mechanism in the "off" position. The tape in the transmitter mechanism will thus be stopped immediately the switches are thrown.

The speed regulator consists of a combination of two governors and these are adjusted to the speed required by turning a knurled disc on which the dial is fixed. The speed range is covered in steps of 1 word per minute from 13 to 30 w.p.m., and in steps of 5 words per minute from 30 to 250 w.p.m., but only the range 15—240 w.p.m. is marked on the dial. Turning the dial anti-clockwise beyond the dial marking 15 w.p.m., two further speeds of 14 and 13 w.p.m. are obtained; 245 and 250 w.p.m. are obtained by turning the dial clockwise beyond the dial marking 240. The speed calibration is based on a standard word equal in length to 25 centreholes of tape.

For D.C. operation a shunt motor is employed, whereas for A.C. mains an induction motor is used. Both motors run at approximately 2,850 r.p.m., and a fixed gear in the speed regulator ensures that the regulator main shaft speed is well in excess of the maximum spindle speed of the transmitter.

A small reduction of the maximum speed obtainable may, however, result on D.C. if the voltage drop is greater than 20 per cent.

In the case of two-voltage D.C. motors, the motor speed at the higher voltage is higher than indicated above.

External connections from the main base are by plugs and sockets. A 3-pin plug and socket is used for the mains,

the third pin being for earth connection of the metal parts of the transmitter, etc., and a 4-pin plug and socket is employed for line and key line and for the spacing and marking terminals of the telegraph battery.