

INDICATOR TUBE



OKAYA RADIO Co., LTD.

INDICATOR TUBE

This indicator tube has several electric poles inserted inside which, utilizing a discharge phenomenon of the rare gas, indicates necessary marks.

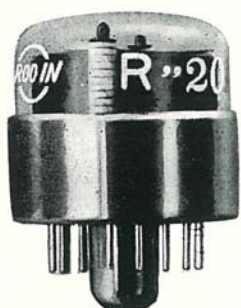
The indications come to the surface beautifully and brightly due to the Gro discharge.

Inside the tube, numbers, various marks or alphabets, etc. are available responding to types of tubes as showed in the following table.

This tube is well controlled by any kind of electric power source efficient to supply more than 170 volts.

As compared with other indications method such as machinery and some electronics, this tube may will be said the most suitable indication equipment in many points and outstanding in the field of digital indication.

5 6 7 8 9



GR-1

Standard Products



GR-2

Characteristics of the indication tube:

This tube is an epoch-making product which has exploited thoroughly characteristics of discharge tubes and enjoys those advantages as follows.

- (a) High brightness and distinct indication are both available.
- (b) Indication and disappearance are both speedily workable.
- (c) Power consumption is low
- (d) Dimensions require no large spaces.
- (e) Indication is beautiful.

Characteristics of our products:

- (a) Close attention has been paid to material design and manufacturing process, in order to assure its ever-lasting usage.
- (b) Valves are reinforced with sealed metal attached.
- (c) The face of valve is installed flat so indication can be easily visible.
- (d) Consideration is paid to variation and shock through its design.
- (e) Special sealed metal is inserted to avoid spatter of pole.
- (f) Since iron part of the sealed is finished black little reflection on the bottom makes the indication distinct.
- (g) Any kind of marks are available.

The Standard table of Indicator Tube

Kind	Indication	Supplying D.C. Volt of Anode	Average Anode Current	Consumption Power	Total Length	Half Length (Upper Part)	Diameter of Most Large Part	Socket	Lookable Distance
GR-1 (GR-201)	0-9	More than 170V DC	About 2.5mA (2.0mA)	0.5W Max. (0.4)	44.5mm Max.	29±2mm	32mm Max.	Special 14 Pins	About 13m
GR-2 (GR-202)	0-9	"	About 5mA	1W Max.	76mm Max.	60±2mm	55mm Max.	Diodical 12 Pins	About 18m
GR-3 (GR-203)	Ω , K Ω M Ω	"	About 2.5mA	0.5W Max.	44.5mm Max.	29±2m	32mm Max.	Special 14 Pins	About 10m
GR-4 (GR-204)	μ F, PF	"	"	"	"	"	"	"	"
GR-5 (GR-205)	+, - X, ÷	"	"	"	"	"	"	"	About 13m
GR-6 (GR-206)	A, mA, μ A	"	"	"	"	"	"	"	About 10m
GR-7 (GR-207)	V, mV, KV	"	"	"	"	"	"	"	"
GR-8 (GR-208)	S, mS, μ S KC	"	"	"	"	"	"	"	"
GR-11 (GR-211)	0-9	"	5.0mA	1.0W Max.	79mm Max.	63±2mm	"	"	About 18m

()Long Life.

The instance of use as recommended (See on the basic circuit)

	Anode Supply Voltage (Ebb)	170V DC	200V DC	250V DC	300V
GR-1 (GR-201)	Series Resistance (Rp)	15K Ω (15K Ω)	28K Ω (30K Ω)	50K Ω (55K Ω)	70K Ω (80K Ω)
GR-2	"	9K Ω	15K Ω	26K Ω	36K Ω
GR-11	"	"	"	"	"

The Applications of Indicator Tube:

- The indications of various kinds control equipments.
- The indications of counters.
- The exchange indications of channels.
- The indication board of records.
- The indications of the ladder.
- The indications to the delta-voltmeter.
- The signal indications.
- The level indications, etc.

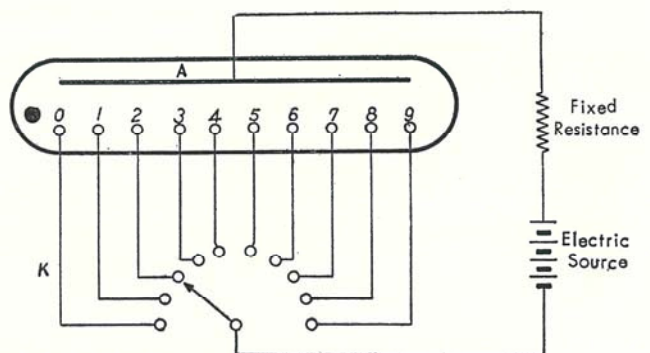
A Method of the connection of Indicator Tube:

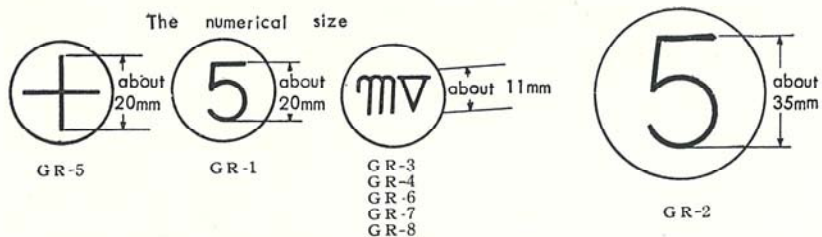
- The connections with the rotary-switch.
- The connections with the electro-magnetic relay circuits.
- The connections with the beam switching tube.
- The connections with the vacuum tube system calculating circuits.
- The connections with the relay discharge tube.
- Others.

The Standard Circuit:

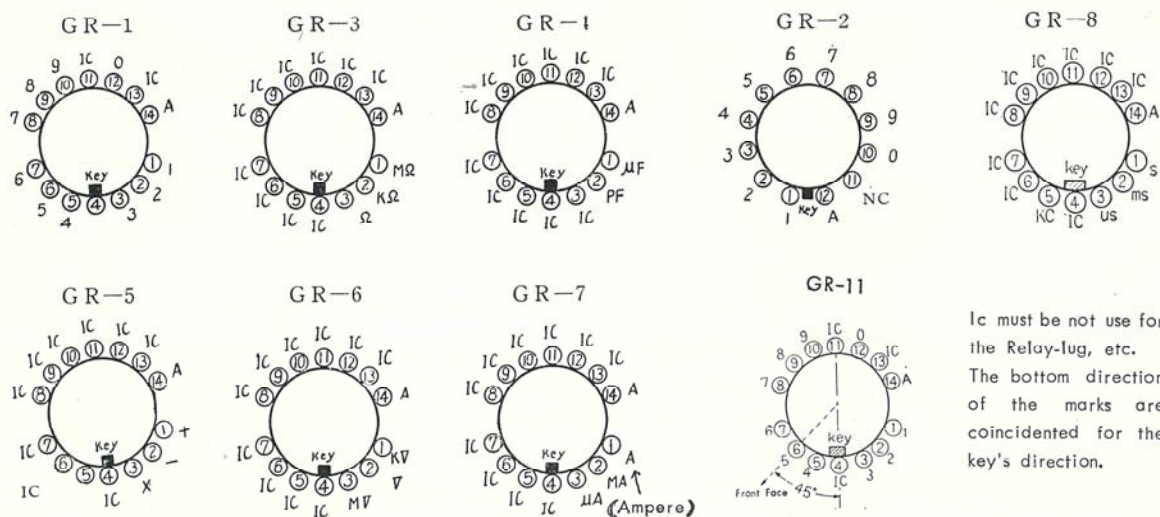
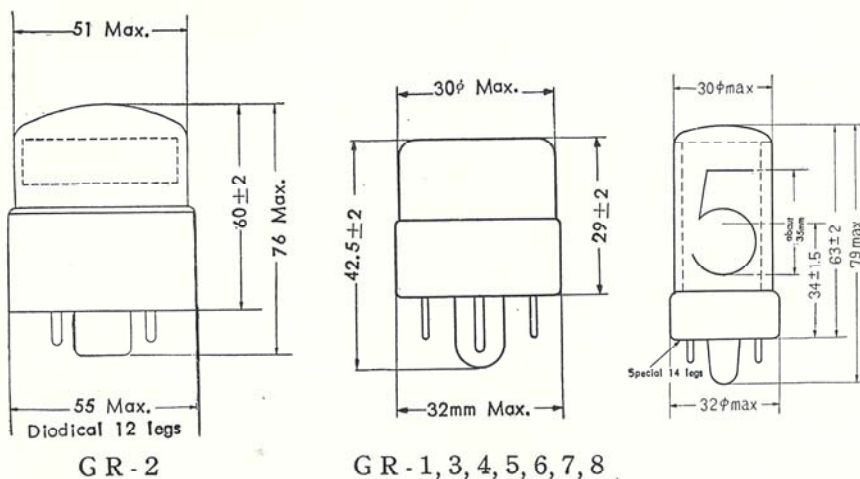
- Electric current must be kept within necessary loads.
- Sockets used in GR-1 type must be GT type special sockets and in GR-2 type 12 pin sockets for B tube use. GR-1 type are sold with the sockets put together.

The Basic circuit





The Outer Dimension



IC must be not use for the Relay-lug, etc.
The bottom direction of the marks are coincident for the key's direction.

(With Special Socket)

(The Bottom Face)

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