Radio remote control system RAC1 series

This is a specified low-power type of radio remote control system which is used for long-range applications. The transmitter has a slim-line, easy-to-carry design, and it boasts excellent operability.
It can handle a large number of ON/OFF signals: 24 signals to be precise. The specified low-power type of radio signals are used so the system is ready for immediate use with no permits needing to be obtained.

Features

1. The transmitter has a built-in antenna, and the shape makes it easy to operate.
2. Continuous operation for more than 10 hours is made possible by the specially designed secondary battery.
3. There is a maximum number of 24 ON/OFF function switches, and these can be operated simultaneously.
4. The design returns all operations to the shutdown status upon receipt of jamming signals or other high levels of noise.
5. Communication is possible at a stable frequency through the use of the MCA (multi-channel access) system that automatically selects the frequencies.
6. The power supply of the receiver supports the 24V voltage used by vehicles.
7. The communication range is more than 100 meters under favorable ambient conditions.

Model Code

● System (transmitter + receiver + accessories)

U-RAC1-GN-220-10

1	2	3	4

1 System designation: RAC1 series (transmitter + receiver + accessories)
2 System symbol
3 System series no.
4 Design no.

● Transmitter

RAC1-GNTX-200-10

1	2	3	4

1 System designation: RAC1 series
2 Transmitter symbol
3 Transmitter series no.
4 Design no.

● Receiver

RAC1-GNRX-210-10

1	2	3	4

1 System designation: RAC1 series
2 Receiver symbol
3 Receiver series no.
4 Design no.

Model Code

● Charger

RAC-CHG-100-10

1	2	3	4

1 System designation: RAC1/RAC2 series
2 Charger symbol
3 Charger series no.
4 Design no.

● Battery

RAC1-BTPC-300-10

1	2	3	4

1 System designation: RAC1 series
2 Battery symbol
3 Battery series no.
4 Design no.

Specifications

Transmitter specifications

Transmit frequencies	429 MHz band, 40 frequencies
Modulation system	FSK modulation (modulation speed: 4800 bps)
Standard complied with	ARIB STD-T67
Function switches	Momentary switches: 21 ON/OFF switches Alternating switches: 3 ON/OFF switches
Operable range	Approx. 100 m (under favorable ambient conditions; measured using the method employed by Tokyo Keiki)
Antenna	Built-in antenna
Power requirements	Rechargeable nickel-hydrogen battery, DC 4.8 V
Continuous usage time	Approx. 10 hours
Power display	Monitor lamp (red)
Water resistance	JIS C 0920-1993 degree of protection 6
Working temperature range	−10 ˚C〜+60 ˚C
Storage temperature range	−20 ˚C〜+60 ˚C
Weight	Approx. 500 g (excluding battery, bracket and waist strap)

Charger specifications

Power requirements	Commercial-use AC 100 V power
Power consumption	9W (when charged)
Working temperature range	−10 ˚C〜+50 ˚C
Normal charging temperature range	0 ˚C〜+40 ˚C
Storage temperature range	−20 ˚C〜+70 ˚C
Weight	Approx. 500 g

System configuration

Product	Qty	
Transmitter	1	Battery incorporated Transmitter bracket and waist belt provided
Receiver	1	
Receiving antenna	1	
Stand for receiving antenna	1	Coaxial cable to connect receiver provided 10 m
Charger	1	
Battery	1	Replacement battery

Receiver specifications

Receive frequencies	429 MHz band, 40 frequencies
Reception system	Quartz crystal-controlled double superheterodyne system
Output	Voltage output Resistive load 2 A Inductive load 2 A (COS ϕ=0.4)
No. of outputs	Max. 24 + communication output (see Note)
Output circuit	Relay-type voltage output circuit
Operation error prevention	Verification using station codes (10 bits) Check sum verification
Antenna	1/4λ whip antenna
Supply voltage	DC 18 V〜32 V
Power display	Monitor lamp (red)
Current consumption	200mA (under DC 24V no-load conditions)
Vibration resistance	JIS D 1601-1995 Class 3B Vibration frequency range category 100 Vibration acceleration grade category 45
Dust-tightness	JIS D 0207-1977 F3
Working temperature range	−10 ˚C〜+60 ˚C
Storage temperature range	−20 ˚C〜+75 ˚C
Weight	Approx. 4 kg

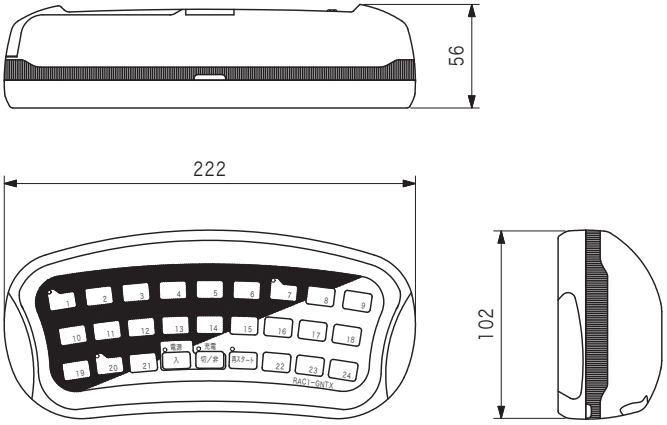
Note: Communication output: This signal turns ON when the system is in the state of normal communication with the transmitter.

Battery specifications

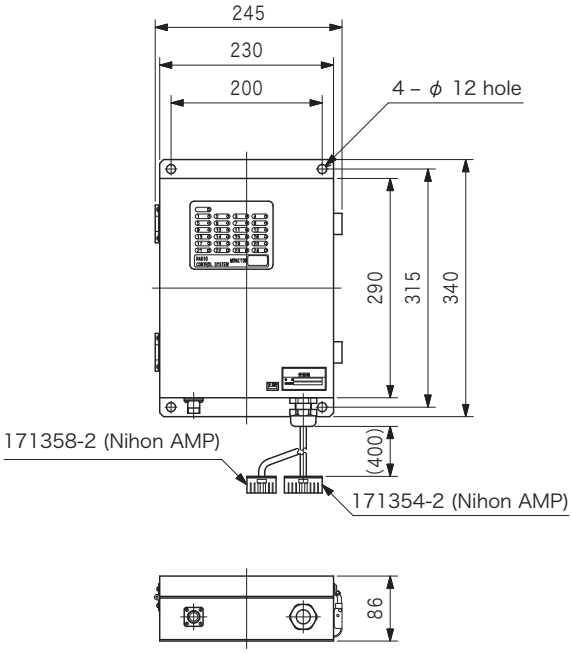
Output	DC 4.8 V, 1500 mAh
Structure	Nickel-hydrogen battery pack inside plastic case
Working temperature range	−10 to +60°C (when discharged) 0 to +40°C (when charged)
Storage temperature range	−20 ˚C〜+60 ˚C
Weight	Approx. 200 g

Dimensions

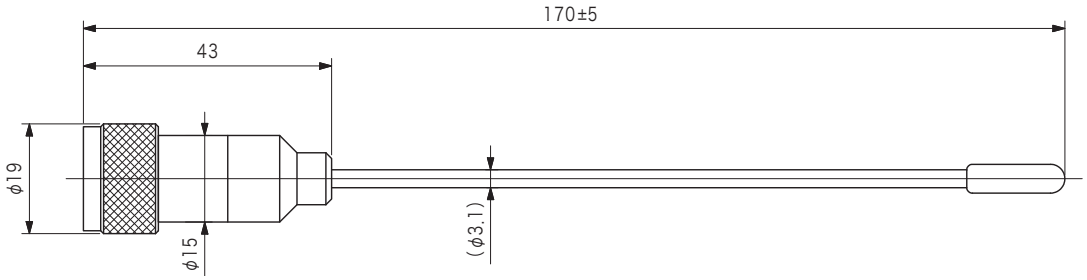
● Transmitter



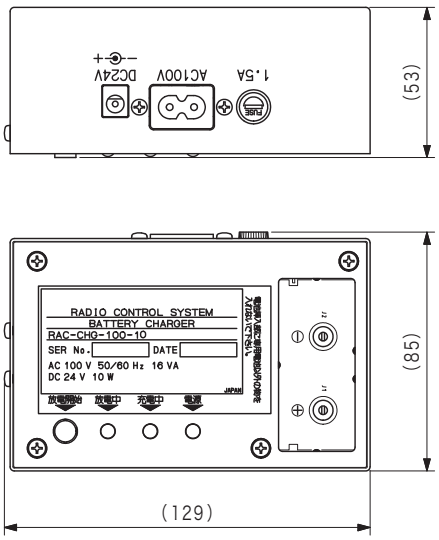
● Receiver



● Receiving antenna



● Charger



● Battery