

Automatic watering controller for golf courses, greenbelts, farmlands, etc.

RSC-S5 solar controller

Commercial power supply not required (solar battery)
 Day of the week configuration

Main applications

- Watering of golf courses and soccer fields
- Watering of farmlands and orchards
- Watering of parks and urban greenbelts
- Watering of greenery within buildings and on rooftops
- Watering for prevention of dust pollution
- Other watering in places where a commercial power supply is not available

Applicable solenoid valve series Latch (pulse voltage)

- RSV-20A-210K-P to 100F-210-P
- RSV-20A-210W-7L011-DC6V to 50A
- GSV2-20*
- to 50*
- GSV-25A-25-P / 50A

Overview

- Commercial power supply not required
- Can be freely installed in any direction
- Rust-free with a stainless steel box
- Low cost of facilities and construction
- Capable of configuring programs max.
 9 times per day
- Capable of sequentially or arbitrarily configuring the watering order
- Capable of temporary and manual watering
- Measures against lightning-induced failures
- Battery protection circuit equipped
- Capable of control up to 500 m with 1.25 mm² 2-conductor wires

Specifications

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ltem	RSC-S5-6WP
Watering setting method	Arbitrary configuration of days of the week
Watering order	Sequentially (arbitrarily also available)
Configuration and No. of times to water	Max. 9 times/day
Watering time	Arbitrary for every channel
Upper limit of watering time	Up to 23 hours 59 minutes/day for each time
Temporarily programmed watering	Available
Skip watering function	Available
Simultaneous watering	Available
Manual watering	Available
External stop	Available
Control output voltage	Polarity inverted pulse energizing (6 to 12 VDC)
Control No. (CH No.)	6CH
Connected solenoid valve No.	1/CH
Lightning-induced failure prevention	Anti-surge 2500 A (8/20 μs) varistor integrated
Control distance (2-conductor)	500 m/1.25 mm ² , 800 m/2 mm ²
Solar cell (solar battery)	6 VDC 1.3 W
Lead storage battery	6 VDC 5,000 mAh
Ambient temperature	-5 (23°F) to 40°C (104°F)
Storage ambient temperature	-25 (-13°F) to 60°C (140°F)
Option	Pole (RSC-S-POLE), rain sensor (RS-6)
Material/paint color/weight	SUS304 t1.5, 7.5BG6/1.5 glossy (gray-based), 9.5kg
Installation	Outdoors
Stopping watering with rain sensor (RS-6)	Available (rain sensor can be mounted on the body of the controller)

How to order



RSC-S5 Series

Internal structure and dimensions

Control unit operating section/wiring

• Example of the RSC-S5-6WP



Caution

- Always read the precautions in the attached instruction manual before starting use.
- In order to maintain power generating efficiency, perform daily inspections to always keep the solar panel surface clean and make sure the unit is installed in a location that is exposed to sunlight.
 The power generating efficiency of the solar cells will

decrease due to adhesion of bird droppings or dead leaves and will void the ability to control watering.
When the battery voltage decreases, the battery

When the battery voltage decreases, the battery protection circuit will operate and the display will be ineffective even when the confirmation button is pressed.

After recovery of the battery voltage, turn the power supply back ON and re-configure the unit.

- Manual operation will be given the highest priority.
 Manual Operation > Stop > Temporary Operation > Automatic Operation
- Make sure the unit is installed in a location that is exposed to sunlight (for 4 hours and over/day).
- When the rain sensor (RS-6) is connected to the stop terminal, watering will be stopped when the cumulative rain volume has reached 6 mm. Recovery will be performed automatically depending on the situation of the weather.

Internal structure and dimensions





Automatic watering controller for greenery, parks, grounds, etc.

RSC-G watering controller

Free power supply 100/200 VAC shared (commercial power supply)
 Day of the week configuration

Main applications

- Watering of parks and urban greenbelts
- Watering of greenery within buildings and on rooftops
- Watering of various grounds such as soccer fields
- Watering of farmlands and orchards
- Watering for prevention of dust pollution
- Others

Applicable solenoid valve series Latch (pulse voltage)

- RSV-20A-210K-P to 100F-210-P
- RSV-20A-210W-7L011-DC6V to 50A
- GSV2-20*
- to 50*
- GSV-25A-25-P / 50A

Overview

- Commercial power supply free input (85 VAC to 264 VAC, 50/60Hz)
- Capable of control up to 500 m with 1.25 mm² 2-conductor wires
- Rust-free with a stainless steel box
- Power failure memory protection for a max. of 40 days
- Capable of configuring programs max.
 9 times per day
- Capable of sequentially or arbitrarily configuring the watering order
- Capable of temporary and manual watering
- Measures against lightning-induced failures

Specifications

ltem	RSC-G-6WP
Watering setting method	Arbitrary configuration of days of the week
Watering order	Sequentially (arbitrarily also available)
Configuration and No. of times to water	Max. 9 times/day
Watering time	Arbitrary for every channel
Upper limit of watering time	Up to 23 hours 59 minutes/day for each time
Temporarily programmed watering	Available
Skip watering function	Available
Simultaneous watering	Available
Manual watering	Available
External stop	Available
Control output voltage	Polarity inverted pulse energizing (6 to 12 VDC)
Power consumption	20 W/30 W or less (100 V/200 V)
Control No. (CH No.)	6CH
Connected solenoid valve No.	1/CH
Lightning-induced failure prevention	Anti-surge 2500 A (8/20 µs) varistor integrated
Control distance (2-conductor)	500 m/1.25 mm ² , 800 m/2 mm ²
Rated voltage	85 to 264 VAC, 50/60 Hz
Power failure protection	40 days or more (only after the unit has been energized for 48 hours or more)
Ambient temperature	-5 (23°F) to 40°C (104°F)
Storage ambient temperature	-25 (-13°F) to 60°C (140°F)
Option	Rain sensor (RS-6)
Box material/paint color/weight	SUS304 t1.5, 7.5BG6/1.5 glossy (gray-based), 9.5kg
Installation	Indoors, outdoors
Stopping watering with rain sensor (RS-6) *1	Available

*1 As the rain sensor cannot be mounted on the body of the controller, be sure to separately install and fix the sensor in a location within 5 m from the unit.

How to order



RSC-G Series

Control unit operating section/wiring

• Example of the RSC-G-6WP



Internal structure and dimensions Caution

- Always read the precautions in the instruction manual before starting use.
- When fixing the box onto a pole, be sure to use the mounting brackets (PM-317, PM-323, PM-330, PM-340) manufactured by Nitto Kogyo.
- When the storage battery voltage decreases thanks to power failure (40 days and over), etc., the battery protection circuit will automatically operate and the power supply will enter a state of being "OFF". In this case, wait for the charge to recover with a commercial power supply, turn the power supply switch back ON, and configure the program.
- Manual operation will be given the highest priority.
 Manual Operation > Stop > Temporary Operation > Automatic Operation
- When the rain sensor (RS-6) is connected to the stop terminal, watering will be stopped when the cumulative rain volume has reached 6 mm. Recovery will be performed automatically depending on the situation of the weather.

Internal structure and dimensions





Automatic watering controller for greenery, parks, and farmlands, etc.

RSC-1WP battery operated watering controller

Outdoor to match greenery
 Day of the week configuration

Main applications

- Watering of parks and urban greenbelts
- Watering of greenery within buildings and on rooftops
- Watering of indoor plantings
- Watering of gardens
- Watering for amusement
- Watering of protected horticulture and outdoor cultured vegetables
- Watering in places where a commercial power supply is not available, etc.

Applicable solenoid valve series Latch (pulse voltage)

- RSV-20A-210K-P to
- 80F-210K-P
- RSV-20A-210W-7L011-DC6V to 50A
- GSV2-20*-P
 - to 50*
- GSV-25A-25-P / 50A

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Overview

- It is possible to perform automatic watering of greenery and within greenhouses where a commercial power supply is not available.
- It is possible to configure a watering time for up to 12 times per day.
- It is possible to configure the watering time from 1 minute up to 9 hours and 59 minutes.
- It is possible to configure the watering time for 1 day to be 1 minute up to 9 hours and 59 minutes.
- A lockable wall mounted structure which can be mounted outside as is. (Locks not included) (Optional pole holders are available as well.)
- Used to control 1 solenoid valve manufactured by CKD (port size of 20A to 80F).
- Configured with a relay output to prevent lightning-induced failure.

Specifications

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ltem	RSC-1WP
Watering setting method	Arbitrary configuration of days of the week
Configuration and No. of times to water	12 times (First and second times for each of 6 periods can be configured)
Watering time	1 minute to 9 hours and 59 minutes per 1 time
Watering method	Automatic, manual (semi-automatic)
External stop	Available
Control output voltage	Polarity inverted pulse energizing (6 to 9 VDC)
Control No. (CH No.)	1CH
Connected solenoid valve No.	1/CH
Control distance	Within 60 m (0.75mm ² cable used)
(2-conductor)	Within 100m (1.25mm ² cable used)
Operating ambient temperature	-5 (23°F) to 40°C (104°F)
Storage ambient temperature	-20 (-4°F) to 55°C (131°F)
Power supply voltage	One 9 V alkaline battery (6LR61)
Lightning-induced failure prevention	Anti-surge 2500 A (8/20 μs) varistor integrated
Installation	Indoors/outdoors
Stopping watering with rain sensor (RS-6)	Mountable on a pole holder sold separately *1

Note) The clock error is a monthly difference of a max. of approximately ±1 minute. (This varies depending on the usage environment)

*1 Pole holder model No. (sold separately) RSC-1WP-PH (common to 1WP, 2WP)

How to order



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Control unit operating section/wiring

RSC-1WP



Internal structure and dimensions



RSC-1WP Series

Internal structure and dimensions

Caution

- Always read the precautions in the instruction manual before starting use.
- As the batteries attached with the product are for tests upon shipping, it is recommended that new batteries be purchased upon installation of the unit.
- Be sure to replace the batteries every year.
- Be sure to use a 2-conductor cable and seal the unit with an SC lock (Cable outer diameter of ø8.5 to 10.5)
- In order to maintain water resistance, be sure to securely close the cover when not operating the unit.
- Be sure to use a plastic or stainless pipe having a diameter of approximately ø35 for the pole.
- Manual operation will be given the highest priority.
 Manual Operation > Stop > Automatic Operation
- When the rain sensor (RS-6) is connected to the stop terminal, watering will be stopped when the cumulative rain volume has reached 6 mm. Recovery will be performed automatically depending on the situation of the weather.



RSC-1WP-PH

All stainless steel bolts for mounting the controller are included.

RSC-1WP Series

Annual calendar system

Specifications

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ltem	RSC-1WP-C
Watering setting method	Annual/day-of-week setting and pulse output watering method
Config and No. of times to water	12 times (First and second times for each of 6 periods)
Watering time	1 minute to 9 hours and 59 minutes per 1 time
Watering method	Automatic/manual (semi-automatic)
External stop	Available
Control output voltage	Polarity inverted pulse energizing (6 to 9 VDC)
Control No. (CH No.)	1CH
Connected solenoid valve No.	1/CH
Control distance	Within 60 m (when 0.75 mm ² cable is used)
(2-conductor)	Within 100 m (when 1.25 mm ² cable is used)
Operating ambient temperature	-5 (23°F) to 40°C (104°F)
Storage ambient temperature	-20 (-4°F) to 55°C (131°F)
Power supply voltage	One 9 V alkaline battery (6LR61)
Lightning-induced failure prevention	Anti-surge 2500 A (8/20 µs) varistor integrated
Installation	Indoors/outdoors
Stopping watering with rain sensor (RS-6)	Mountable on a pole holder sold separately *

How to order



* Pole holder (optional) model No: RSC-1WP-PH

Dimensions



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#### Control unit operating section/wiring



No.	Part name	Material
1	Operating section	
2	Product name plate	
3	Battery hook	
4	Alkaline battery	
5	SC lock	
6	Cover	Stainless steel
7	Case	AAS resin
8	Hook snap lock	

### A Safety precautions

Always read the precautions in the instruction manual before starting use.

- As the batteries attached with the product are for tests upon shipping, it is recommended that new batteries be purchased upon installation of the unit.
- Be sure to replace the batteries every year.
- Be sure to use a 2-conductor cable and seal the unit with an SC lock. (Cable outer diameter of ø8.5 to ø10.5)
- In order to maintain water resistance, be sure to securely close the cover when not operating the unit.
- Be sure to use a plastic or stainless pipe having a diameter of approximately ø35 for the pole. (When using an optional pole holder)
- Manual operation will be given the highest priority. Manual Operation > Stop > Automatic Operation
- When the rain sensor (RS-6) is connected to the stop terminal, watering will be stopped when the cumulative rain volume has reached 6 mm. Recovery will be performed automatically depending on the situation of the weather.
- Be careful when operating the "Reset" button as this will clear all details.
- Check the watering status regularly to avoid affecting crop growth due to trouble.

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#### Soil water check method Specifications

Specifications	1 MPa ≈ 145.0 psi, 1 MPa = 10 bar	
ltem	RSC-1WP-H	
Watering setting method	Soil water check type (threshold can be set.)	
Configuration and No. of times to water	Six terms (2 cycles/term)	
Watering time	1 minute to 9 hours and 59 minutes per 1 time	
Watering method	Automatic/manual (semi-automatic)	
Watering/non-watering	Watering/non-watering setting based on the water setting value	
Control output voltage	Polarity inverted pulse energizing (6 to 9 VDC)	
Control No. (CH No.)	1CH	
Connected solenoid valve No.	1/CH	
Solenoid valve control distance	Within 60 m (when 0.75 mm ² cable (O.D. ø8.5 to 10) is used) *1	
Operating ambient temperature	-5 (23°F) to 40°C (104°F)	
Storage temperature	-20 (-4°F) to 55°C (131°F)	
Power supply	One 9 V alkaline battery (6LR61)	
Lightning-induced electric failure prevention	Anti-surge 2500 A (8/20 µs) varistor integrated	
Installation	Indoors/outdoors (except atmospheres affecting component materials)	
* Pole holder (optional) model No: RSC-1WP-PH		

How to order

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*1 Extension of the checker is to be 10 m or less for 0.3 mm². (includes cable 2 m)



them and then set the threshold. Even when burying again, perform checks and settings again.

may change greatly depending on the soil and burying method, so be sure to individually check



#### **Main applications**

- Watering of golf courses
- Watering of parks and urban greenbelts
- Watering of greenery within buildings and on rooftops
- Watering of indoor plantings
- Watering of gardens
- Watering for amusement
- Watering of protected horticulture and outdoor cultured vegetables
- Watering in places where a commercial power supply is not available, etc.

#### Applicable solenoid valve series Latch (pulse voltage)

- RSV-20A-210K-P to 80F-210K-P
- RSV-20A-210W-7L011-DC6V to 50A
- GSV2-20*-P to 50*
- GSV-25A-25-P / 50A

#### Overview

- It is possible to perform automatic watering of greenery and within greenhouses where a commercial power supply is not available.
- The unit will operate for approximately 1 year with 1 alkaline battery (9 V).
- It is possible to configure a watering time for up to 6 times per day.
- It is possible to configure the watering time for 1 day to be 1 minute up to 9 hours and 59 minutes.
- A lockable wall mounted structure which can be mounted outside as is. (Locks not included) (Optional pole holders are available as well.)
- Used to control 2 solenoid valve manufactured by CKD (port size of 20A to 80F).
- Configured with a relay output to prevent lightning-induced failure.

Automatic watering controller for golf courses, greenbelts, parks, farmlands, etc.

## **RSC-2WP** battery operated watering controller

Completely independent control of 2CH watering
 Day of the week configuration

#### Specifications

Item	RSC-2WP
Watering setting method	Arbitrary configuration of days of the week
Configuration and No. of times to water	Two independent channels 6 cycles/day
Watering time	1 minute to 9 hours and 59 minutes per 1 time
Watering method	Automatic, manual (semi-automatic)
External stop	Available
Control output voltage	Polarity inverted pulse energizing (6 to 9 VDC)
Control No. (CH No.)	2CH
Connected solenoid valve No.	1/CH
Control distance	Within 60 m (when 0.75 mm ² cable is used)
(2-conductor)	Within 100 m (when 1.25 mm ² cable is used)
Operating ambient temperature	-5 (23°F) to 40°C (104°F)
Storage ambient temperature	-20 (-4°F) to 55°C (131°F)
Power supply voltage	One 9 V alkaline battery (6LR61)
Lightning-induced failure prevention	Anti-surge 2500 A (8/20 µs) varistor integrated
Installation	Indoors/outdoors
Stopping watering with rain sensor (RS-6)	Mountable on a pole holder sold separately *1

Note) The clock error is a monthly difference of a max. of approximately ±1 minute. (This varies depending on the usage environment)

*1 Pole holder model No. (sold separately) RSC-1WP-PH (common to 1WP, 2WP)

#### How to order

RSC-2 W P

Control method: pulse voltage Watering method: day of the week

Channel No.: 2 CH

#### Control unit operating section/wiring

RSC-2WP



### Caution

- Always read the precautions in the instruction manual before starting use.
- As the batteries attached with the product are for tests upon shipping, it is recommended that new batteries be purchased upon installation of the unit.
- Be sure to replace the batteries every year.
- Be sure to use 3-conductor cabtyre cables (cable outer diameter of ø8.5 to 10.5) for the wiring of the solenoid valves and arrange the wiring so that the common line is shared before entry into the controller. In addition, be sure to securely seal the cable outlet with silicone, etc., when using rain sensors.
- In order to maintain water resistance, be sure to securely close the cover when not operating the unit.
- Be sure to use a plastic or stainless pipe having a diameter of approximately ø35 for the pole.
- Manual operation will be given the highest priority.
   Manual Operation > Stop > Automatic Operation
- When the rain sensor (RS-6) is connected to the stop terminal, watering will be stopped when the cumulative rain volume has reached 6 mm. Recovery will be performed automatically depending on the situation of the weather.
- Be careful when operating the "All Reset" button as this will clear all details other than the present time.



# RSC-2WP series

#### Internal structure and dimensions



* Though the diagram of the control panel is translated into English, the actual product is labelled in Japanese,