

T&D Optional Products Catalog



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Other Optional Units

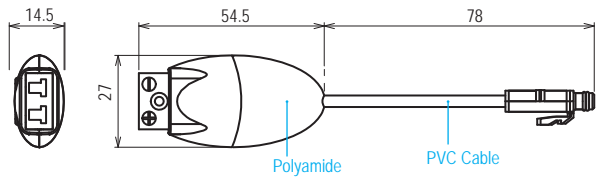
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TCM-3010



Provided with RTR-505-TC, RTR-505-TCL and TR-55i-TC

Thermocouple Module



[Unit: mm]

Compatible Sensors	Thermocouple: Type K, J, T, S
Measurement Range	within the sensor heat-durability range only
Measurement Resolution	Type K, J, T : 0.1°C Type S : about 0.2°C
Measurement Accuracy	Cold Junction Compensation *
	Thermocouple Measurement *
Operating Environment	Temperature -40 to 80°C Humidity 90%RH or less (no condensation)
Sensor Connection	Make sure to use a thermocouple sensor with a miniature thermocouple plug attached. T&D does not make available these plugs or sensors for sale.
Notes	Can be extended by 3 meters with the Extension Cable TR-3C30

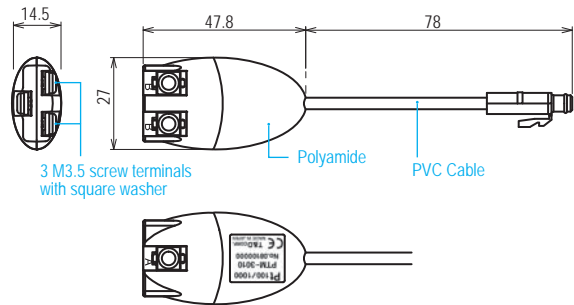
* Does not include inaccuracies of sensor actually connected.

PTM-3010



Provided with RTR-505-Pt, RTR-505-PtL and TR-55i-Pt

Pt Module



[Unit: mm]

Compatible Sensors	Pt100 (3-wire, 4-wire) Pt1000 (3-wire, 4-wire) In the case of a 4-wire sensor, one wire will be left unused.
Measurement Resolution	0.1°C
Measurement Accuracy *	Ambient Temperature of Input Module -40 to 10°C: ±0.5°C + 0.3% of reading 10 to 40°C: ±0.3°C + 0.3% of reading 40 to 80°C: ±0.5°C + 0.3% of reading
Operating Environment	Temperature -40 to 80°C, Humidity 90%RH or less (no condensation)
Accessories	Protection Cover
Notes	Can be extended by 3 meters with the Extension Cable TR-3C30

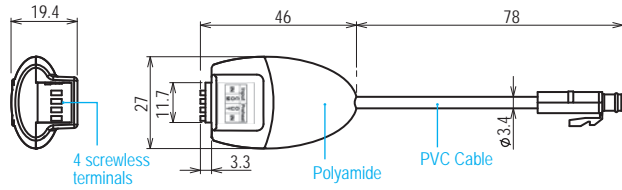
* Does not include inaccuracies of sensor actually connected.

VIM-3010



Provided with RTR-505-V, RTR-505-VL and TR-55i-V

Voltage Module



[Unit: mm]

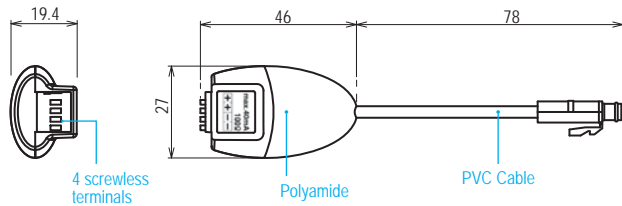
Measurement Item	Voltage 0 to 22 V
Measurement Resolution	Up to 400 mV : 0.1 mV Up to 800 mV : 0.2 mV Up to 999 mV : 0.4 mV Up to 3.2 V : 1 mV Up to 6.5 V : 2 mV Up to 9.999 V : 4 mV Up to 22 V : 10 mV
Measurement Accuracy	Ambient Temperature of Input Module -40 to 10°C: ±1 mV+ 0.5% of reading 10 to 40°C: ±0.5mV+ 0.3% of reading 40 to 80°C: ±1mV+ 0.5% of reading
Preheat Function	Voltage Range (Preheating): 3V to 20V100mA Time Range (Preheating): 1 to 999 seconds (in units of one-second) Capacitor Load: 330µF or less
Operating Environment	Temperature: -40 to 80°C , Humidity: 90%RH or less (no condensation)
Notes	Can be extended by 3 meters with the Extension Cable TR-3C30

AIM-3010



Provided with RTR-505-mA, RTR-505-mAL and TR-55i-mA

4-20mA Module



[Unit: mm]

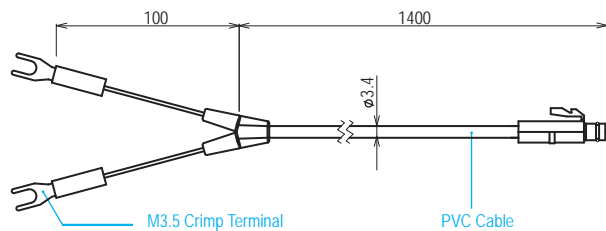
Input Resistance	0 to 20mA Operational up to 40 mA
Measurement Resolution	0.01 mA
Measurement Accuracy	Ambient Temperature of Input Module -40 to 10°C: ±0.1mA + 0.3% of reading 10 to 40°C: ±0.05mA + 0.3% of reading 40 to 80°C: ±0.1mA + 0.3% of reading
Input Resistance	100Ω ±0.3Ω
Sensor Connection	Cable Insertion Connection: Plus(+) 2 Parallel Terminals, Minus(-) 2 Parallel Terminals: Total 4 Terminals
Compatible Wires	Single wire: φ0.32 to φ0.65mm (AWG28 to AWG22), φ0.65mm (AWG22) recommended Twisted wire: 0.32mm ² (AWG22), φ0.12mm or more in diameter Strip length: 9 to 10mm
Operating Environment	Temperature: -40 to 80°C , Humidity: 90%RH or less (no condensation)
Notes	Can be extended by 3 meters with the Extension Cable TR-3C30

PIC-3150



Provided with RTR-505-P, RTR-505-PL and TR-55i-P

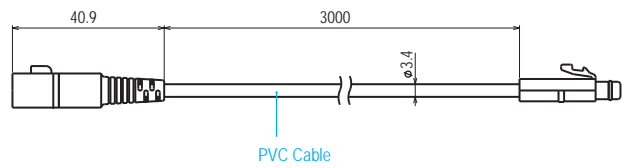
Pulse Input Cable



[Unit: mm]

TR-3C30

Input Module Extension Cable



[Unit: mm]

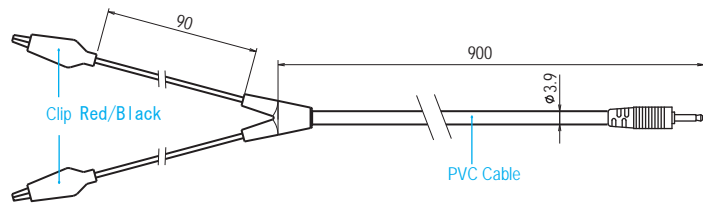
Temperature Durability	-25 to 60°C
Waterproof Capacity	Splash proof (rated for use in daily life)
Compatible Sensors / Modules	Temp-Humidity Sensor: SHB-3101 (Previous Model HHB-3101) Input Module: TCM-3010, PTM-3010, VIM-3010, AIM-3010, PIC-3150, PMP-3200
Conditions for Use	Only one cable per sensor or module.

VR-7101



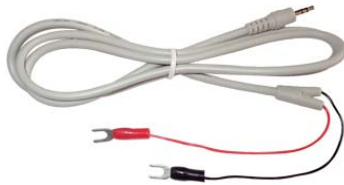
Provided with TR-71

Input Cable

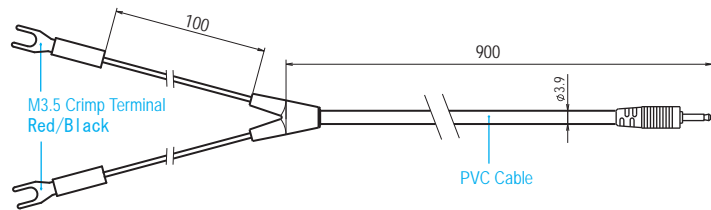


[Unit: mm]

VR-7102

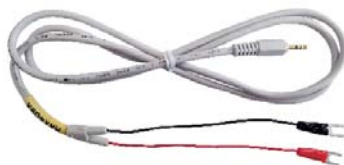


Input Cable

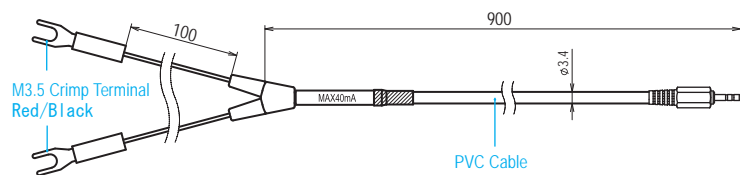


[Unit: mm]

VR-7103



4-20mA Probe



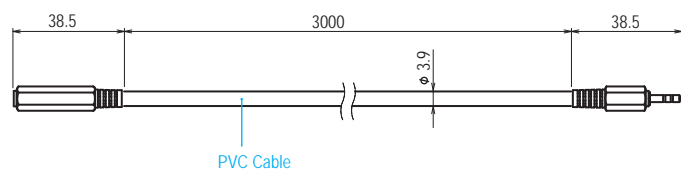
[Unit: mm]

Maximum Current Input	MAX 40 mA
Internal Resistance	100 Ω
Output	2V at 20mA / 0.4V at 4mA
Conversion Accuracy	0.5%

TR-1C30



Extension Cable



[Unit: mm]

Temperature Durability	-25 to 60°C
Waterproof Capacity	None
Compatible Sensors	Temperature Sensor: TR-1106, TR-1220, TR-1320, TR-0106, TR-0206, TR-0306, TR-0406, TR-0506, TR-0706 Temp-Humidity Sensor: THA-3001, THA-3151, SHA-3151 (Previous Model HHA-3151) Illuminance-UV Sensor: ISA-3151 Input Cable: VR-7101, VR-7102, VR-7103
Conditions for Use	Temperature sensors can use up to 3 meters of extension cables. Temp-Humidity sensors and Illuminance-UV sensors can use up to 9 meters of extension cables. Input cables can use multiple extension cables.

TR-00P1

Maintenance Set

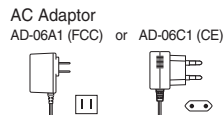
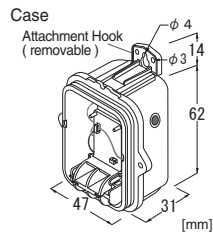


Compatible Devices:
RTR-501 / 502 / 503 / 505 / 507S,
TR-51i / 52i / 55i, TR41 / 42
Discontinued-Compatible Devices:
RTR-5 Series, TR-51/51A/52, RTR-507
Included:
Rubber Packing, Silica Gel,
Double-Sided Adhesive Tape, Lock
Screw

RTR-500A2

External Power Adaptor Kit

Internal Ni-MH battery provides
about 4 days*2 of AC failure backup.



Compatible Devices:
RTR-502 / 503 / 505 / 507S, TR42
Discontinued-Compatible Device:
RTR-507
Voltage Input: DC6V
Charging Method: Trickle Charge
Operating Temperature: 0 to 60°C
Waterproof Capacity: None
Weight: About 37g (without AC Adaptor)
Included:
AC Adaptor (AD-06A1 or AD-06C1) ,
Case and Attachment Hook,
Rubber Packing , Lock Screw

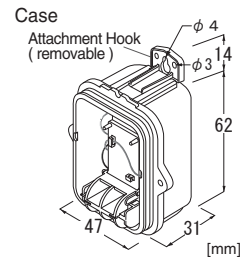
*1: RTR-500A2 should not be used with the RTR-501 and TR41 as it will cause the RTR-501 and TR41 to display a higher than actual temperature reading of up to 3°C.

*2: Varies depending on the amount of charge in the Ni-MH battery.

RTR-500B1

Large Capacity Battery Kit

About 4 years of battery life



Compatible Devices:
RTR-501 / 502 / 503 / 505 / 507S,
TR41 / 42
Discontinued-Compatible Devices:
RTR-507
Power: Lithium Battery x1 (LS26500) *1
Battery Life: About 4 years *2
Waterproof Capability: Splash proof
Operating Temperature: -40 to 80°C *3
Weight: About 75g (including Lithium Battery)
Included:
Maintenance Set TR-00P1,
Case and Attachment Hook

*1: When using RTR-500B1 it is necessary to purchase Lithium Battery (LS26500). For details, contact your local authorized distributor.

*2: Battery Life varies depending on measuring environment, recording interval, transmission frequency, and ambient temperature. The battery life estimated here is calculated using a new battery under normal operating conditions and in no way should be understood as a guarantee of battery life.

*3: Operating temperature depends on the specifications for the data logger being used.

Communication Cables

US-15C



Cable Length: 1.5 m

For Communication with PC

TR-6C10 Serial Communication Cable



Provided with TR-57DCi
Cable Length: 1.0m

For Communication between Data Collector and Data Logger

RTR-500DC ⇔ RTR-574 / 576

TR-57DCi ⇔ TR-74Ui / 76Ui / 73U, TR-71Ui / 72Ui, TR-71U / 72U

RTR-57U ⇔ TR-71U / 72U

TR-57U ⇔ TR-71Ui / 72Ui / 74Ui / 76Ui / 73U / 77Ui,
TR-71U / 72U, TR-71S / 72S

TR-07C



Cable Length: 1.5 m
Connector: D-sub9pin

For Communication between PC and Data Logger *

PC ⇔ TR-74Ui / 76Ui / 73U

For Communication between PC and Data Collector *

PC ⇔ TR-57DCi, RTR-500DC, RTR-500

* Customers wishing to write their own software, please contact your local distributor for the serial communications protocol specifications.

TR-4C10 Serial Communication Cable



Cable Length: 1.0m

For Communication between Data Collector and Data Logger

TR-57DCi, RTR-57U ⇔ VR-71, TR-71S / 72S

TR-57U ⇔ VR-71

RTR-57C ⇔ VR-71, TR-71S / 72S

TR-57C ⇔ TR-71U / 72U

TR-09C



Provided with VR-71
Cable Length: 1.5 m
Connector: D-sub9pin

For Communication between PC and Data Logger

PC ⇔ VR-71, TR-81, RF-3, TR-71S / 72S

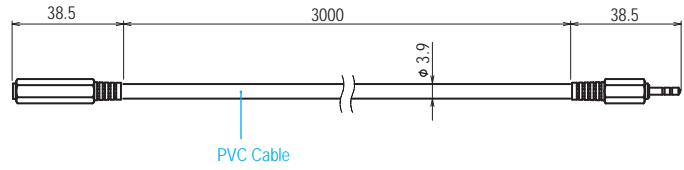
For Communication between PC and Data Collector

PC ⇔ TR-57C

TR-1C30



Sensor Extension Cable



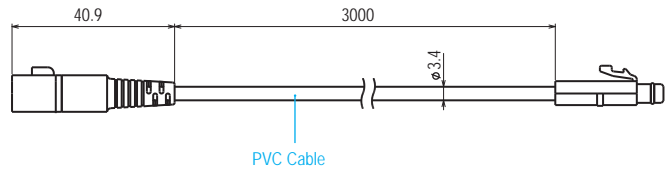
[Unit: mm]

Temperature Durability	-25 to 60°C
Waterproof Capacity	None
Compatible Sensors	Temperature Sensor: TR-1106, TR-1220, TR-1320, TR-0106, TR-0206, TR-0306, TR-0406, TR-0506, TR-0706 Temp-Humidity Sensor: THA-3001, THA-3151, SHA-3151 (Previous Model HHA-3151) Illuminance-UV Sensor: ISA-3151 Input Cable: VR-7101, VR-7102, VR-7103
Conditions for Use	Temperature sensors can use up to 3 meters of extension cables. Temp-Humidity sensors and Illuminance-UV sensors can use up to 9 meters of extension cables. Input cables can use multiple extension cables.

TR-2C30



Sensor Extension Cable



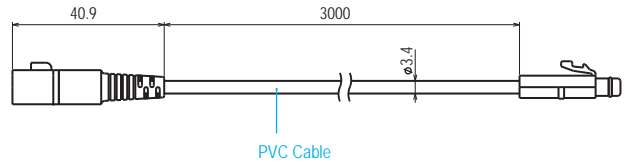
[Unit: mm]

Temperature Durability	-25 to 60°C
Waterproof Capacity	Splash proof (rated for use in daily life)
Compatible Sensors	Temperature Sensor: TR-5101, TR-5106, TR-5220, TR-5320, TR-5420, TR-5530, TR-5620
Conditions for Use	Only one cable per sensor.

TR-3C30



Sensor / Input module Extension Cable

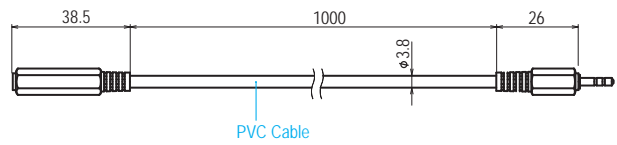


[Unit: mm]

Temperature Durability	-25 to 60°C
Waterproof Capacity	Splash proof (rated for use in daily life)
Compatible Sensors / Modules	Temp-Humidity Sensor: SHB-3101 (Previous Model HHB-3101) Input Module: TCM-3010, PTM-3010, VIM-3010, AIM-3010, PIC-3150, PMP-3200
Conditions for Use	Only one cable per sensor or module.

TR-5C10

Sensor Extension Cable



[Unit: mm]

Temperature Durability	-25 to 60°C
Waterproof Capacity	None
Compatible Sensors	Temperature Sensor: TR-1106, TR-1220, TR-1320, TR-0106, TR-0206, TR-0306, TR-0406, TR-0506, TR-0706, Temp-Humidity Sensor: THA-3001, THA-3151, SHA-3151, TR-3100 * (Previous Model HHA-3151) Illuminance-UV Sensor: ISA-3151
Conditions for Use	Temperature sensors can use up to 3 meters of extension cables. Temp-Humidity sensors and Illuminance-UV sensors can use up to 9 meters of extension cables. * Only 1 extension cable for TR-3100

AD-05A2

AC Adaptor (FCC)



USB Mini-B Type

Input	AC 100 - 240 V
Output	DC 5 V, 1 A
Frequency	50 / 60 Hz
Cable Length	1.5 m
Plug Type	A
Compatible Devices	Data Logger: TR-7wf/nw Series * (Including S Type) MCR Series
Discontinued- Compatible Devices	Data Logger: TR-72nw-H/72wf-H

AD-05C2

AC Adaptor (CE)



USB Mini-B Type

Input	AC100-240V
Output	DC5V, 1A
Frequency	50 / 60 Hz
Cable Length	1.5 m
Plug Type	C
Compatible Devices	Data Logger: TR-7wf/nw Series * (Including S Type) MCR Series
Discontinued- Compatible Devices	Data Logger: TR-72nw-H/72wf-H

* When using with TR-7wf/nw Series the logger body will become hot. Also note that the data logger itself will generate heat and the internal sensor will measure a temperature higher than actual; we recommend using an external temperature sensor.

AD-06A1

AC Adaptor (FCC)



Provided with RTR-500AW / 500NW, TR-76Ui / 76Ui-S, RTR-576/576-S

Input	AC 100 to 240 V
Output	DC 6 V, 500 mA
Frequency	50 / 60 Hz
Cable Length	1.8 m
Plug Type	A
Compatible Devices	Base Unit : RTR-500AW/500NW, RTR-500DC, RTR-500, TR-57DCi Data Logger: TR-76Ui, RTR-576 (Including S Type) External Power Adaptor Kit: RTR-500A2
Discontinued- Compatible Devices	Base Unit: RTR-50, RTR-57C, Data Logger: TR-76Ui-H, RTR-576-H, TR- 700W Series, RTR-7 Series External Power Adaptor Kit: RTR-05A1

AD-06C1

AC Adaptor (CE)



Provided with RTR-500AW / 500NW, TR-76Ui / 76Ui-S, RTR-576/576-S

Input	AC 100 to 240 V
Output	DC 6 V, 500 mA
Frequency	50 / 60 Hz
Cable Length	1.8 m
Plug Type	C
Compatible Devices	Base Unit: RTR-500AW/500NW, RTR-500DC, RTR-500, TR-57DCi Data Logger: TR-76Ui, RTR-576 (Including S Type) External Power Adaptor Kit: RTR-500A2
Discontinued- Compatible Devices	Base Unit: RTR-50, RTR-57U Data Logger: TR-76Ui-H, RTR-576-H, TR-700W Series, RTR-7 Series External Power Adaptor Kit: RTR-05A1

AD-05A3

AC Adaptor (FCC)



Input	AC100-240V
Output	DC5V 3A
Frequency	50 / 60 Hz
Cable Length	1.2 m
Plug Type	A
Compatible Devices	Base Unit: RTR-500MBS-A Battery Charger: RTR-6BD
Discontinued- Compatible Devices	Base Unit: RTR-500GSM, RTR-5W, WS-2 Data Logger: TR-7W Series, WDR-3

AD-05C1

AC Adaptor (CE)



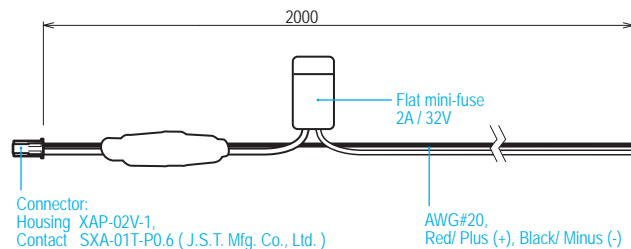
Input	AC100-240V
Output	DC5V 2A
Frequency	50 / 60 Hz
Cable Length	1.6m
Plug Type	C
Compatible Devices	Base Unit: RTR-500MBS-A
Discontinued- Compatible Devices	Base Unit: RTR-500GSM, RTR-5W, WS-2 Data Logger: TR-7W Series, WDR-3

BC-0302

External Power sCable



Provided with RTR-500MBS-A

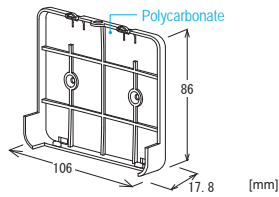


[Unit: mm]

Power Source Conditions	Voltage DC 10 to 24 V Current MAX 2A
Notes	Prepare a battery that meets the above conditions.
Compatible Devices	Base Unit: RTR-500MBS-A

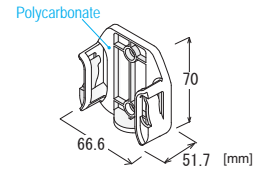
Wall Attachments

TR-5WK1



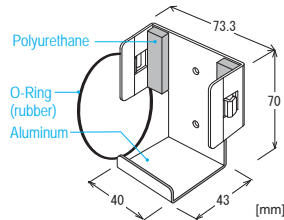
Compatible Devices:
RTR-500NW / 500AW
Discontinued-Compatible Devices:
WDR-3, WS-2, RTR-5W
Included:
Lock Screws for fastening to wall,
Lock Screw for fastening the device, Double-Sided Adhesive Tape

TR-05K3



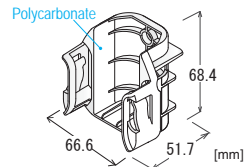
Compatible Devices:
TR-511/521/551, RTR-501/502/503/
505/507S, TR41/42
Discontinued-Compatible Devices:
RTR-507, RTR-51A/52A/53A,
RTR-52Pt, RVR-52, TR-51S/52S,
TR-51/51A/52
Included:
Lock Screws for fastening to wall
Double-Sided Adhesive Tape

TR-5GK1



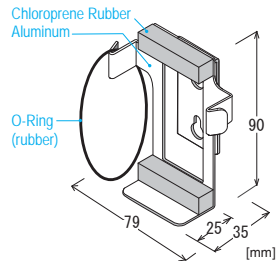
Compatible Device:
RTR-500MBS-A
Included:
O-Ring, Lock Screws,
Double-Sided Adhesive Tape

TR-05K3L



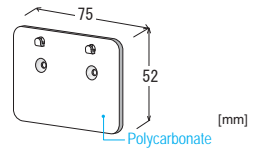
Compatible Devices:
RTR-501L / 502L / 503L / 505L /
507SL, TR45, TR41/42*
Discontinued-Compatible Devices:
RTR-507L, RTR-51AL/52AL/53AL,
RTR-52PtL, RVR-52L
Included:
Lock Screws for fastening to wall
Double-Sided Adhesive Tape
* TR41/42: Can be used when attaching
Large Capacity Battery Kit or External
Power Adaptor Kit.

AT-50K1



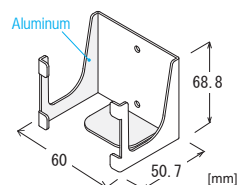
Compatible Device:
RTR-500
Included:
O-Ring, Lock Screws,
Double-Sided Adhesive Tape

TR-07K2



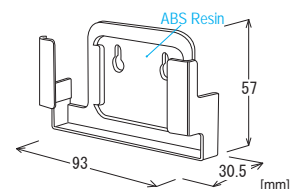
Compatible Devices:
TR-71wf / 72wf / 72wf-S / 75wf,
TR-71nw / 72nw / 72nw-S / 75nw,
TR-74Ui / 73U, RTR-574 / 574-S
Discontinued-Compatible Devices:
TR-74Ui-H, RTR-574-H
TR-700W Series,
TR-71Ui / 72Ui / 77Ui, TR-71U /
72U
Included:
Lock Screws for fastening to wall
Double-Sided Adhesive Tape

AT-76K1



Compatible Devices:
TR-76Ui / 76Ui-S, RTR-576 /
576-S
Discontinued-Compatible Devices:
TR-76Ui-H, RTR-576-H
Included:
Lock Screws for fastening to wall

TR-00K2



Compatible Device:
VR-71
Discontinued-Compatible Devices:
TR-71S / 72S
Included:
Lock Screws for fastening to wall
Double-Sided Adhesive Tape

Note: Cracking may occur if polycarbonate is exposed to strong impact at temperatures of -30°C or lower.

SO-15C1

TR-7wf/nw for Windows Software Set



Items Included:
 CD-ROM
 USB Mini-B Cable (US-15C)

The TR-7wf/nw series software can be downloaded via the internet, but for those who prefer, a CD and USB cable set is available for purchase.

Other Optional Units

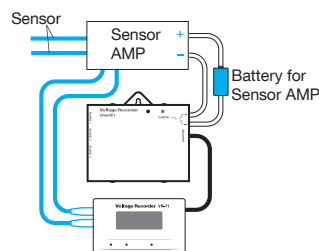
VR-00P1

Expansion Unit for VR-71



Features	Preheat Function: Transmits a preheat signal that is synchronized with the VR-71 recording timing to turn sensors or other devices ON and OFF Simultaneous Recording: Allows you to simultaneously record with up to four VR-71 units
Preheat Output Terminal Contact Capacity	DC 30V 100 mA ON Resistance: MAX15Ω
Power Source	AA Alkaline Battery (LR6) x1
Dimensions	H57mm × W95mm × D24mm
Weight	230g including 1 AA Alkaline Battery
Items Included	AA Alkaline Battery (LR6) x1, Wall Attachment (TR-00K2) x1, Connection Cables: VR-1C01 (15cm) x1 VR-1C10 (1m) x1 User's Manual (Warranty Included)

Example of a Pre-heat Connection



Example of a Simultaneous Recording Connection

