

# T&D Optional Products Catalog



## Input Modules

TCM-3010-----	p.2
PTM-3010-----	p.2
VIM-3010 -----	p.3
AIM-3010 -----	p.3
PIC-3150-----	p.4
TR-3C30-----	p.4



## Sensor Extension Cables

TR-1C30 -----	p.5
TR-2C30 -----	p.5
TR-3C30 -----	p.5
TR-5C10 -----	p.6



## AC Adaptors

AD-05A2 -----	p.7
AD-05C2 -----	p.7
AD-06A1 -----	p.7
AD-06C1 -----	p.7
AD-05A3 -----	p.7
AD-05C1 -----	p.7
AD-05A4 -----	p.7



## Battery Power Supply Accessories, Maintenance Set

RTR-500A2 -----	p.8
RTR-500B1 -----	p.8
BC-0204 -----	p.8
TR-00P1 -----	p.8



## Wall Attachments

TR-5WK1 -----	p.9
TR-05K3 -----	p.9
TR-5GK1 -----	p.9
TR-05K3L -----	p.9
AT-50K1 -----	p.9
TR-07K2 -----	p.9
AT-76K1 -----	p.9
AT-32K2 -----	p.9



## Cables, Antennas

US-15C -----	p.10
TR-07C -----	p.10
AC0101-----	p.10
CSR-0011-----	p.10
CEL-0151 -----	p.10



## Software for Purchase

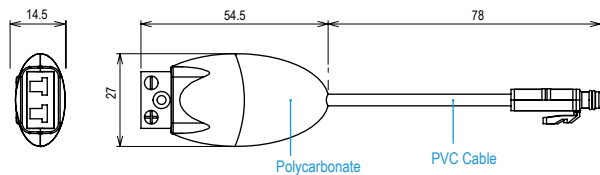
SO-TD1 -----	p.11
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## TCM-3010



Provided with 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 -40 to 10 °C : $\pm 0.5$ °C 10 to 40 °C : $\pm 0.3$ °C 40 to 80 °C : $\pm 0.5$ °C
	Thermocouple Measurement Type K, J, T: $\pm(0.3 + 0.003 \times t)$ °C Type S: $\pm(1.0 + 0.003 \times t)$ °C t = absolute value of measurement in °C
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.
Note	Can be extended by 3 meters with the Extension Cable TR-3C30

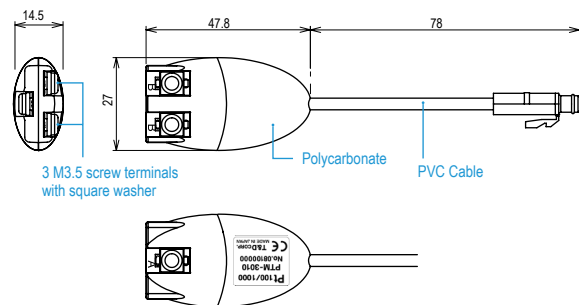
\* Does not include inaccuracies of sensor actually connected.

## PTM-3010



Provided with 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 : $\pm(0.5 + 0.003 \times t)$ °C 10 to 40 °C : $\pm(0.3 + 0.003 \times t)$ °C 40 to 80 °C : $\pm(0.5 + 0.003 \times t)$ °C t = absolute value of measurement in °C
Operating Environment	Temperature -40 to 80 °C, Humidity 90 %RH or less (no condensation)
Included Items	Protection Cover
Notes	Can be extended by 3 meters with the Extension Cable TR-3C30

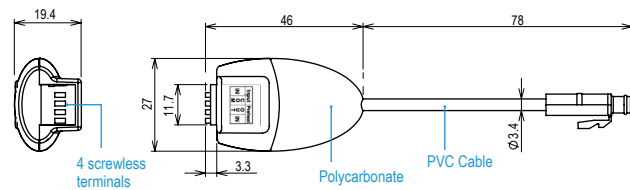
\* Does not include inaccuracies of sensor actually connected.

## VIM-3010



Provided with TR-55i-V

## Voltage Module



[Unit: mm]

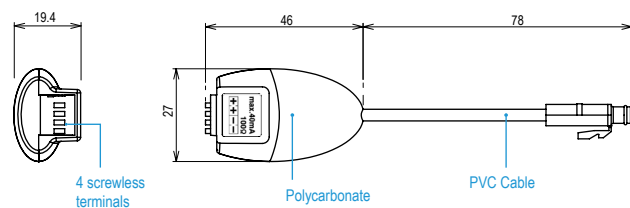
Measurement Item	Voltage 0 to 22 V
Measurement Resolution	Up to 400 mV : 0.1 mV Up to 800 mV : 0.2 mV Up to 999 mV : 0.4 mV Up to 3.2 V : 1 mV Up to 6.5 V : 2 mV Up to 9.999 V : 4 mV Up to 22 V : 10mV
Measurement Accuracy	Ambient Temperature of Input Module -40 to 10 °C : $\pm 1 \text{ mV} + 0.5 \% \text{ of reading}$ 10 to 40 °C : $\pm 0.5 \text{ mV} + 0.3 \% \text{ of reading}$ 40 to 80 °C : $\pm 1 \text{ mV} + 0.5 \% \text{ of reading}$
Preheat Function	Voltage Range (Preheating): 3 V to 20 V (up to 100 mA) Time Range (Preheating): 1 to 999 seconds (in units of one-second) Capacitor Load: 330 $\mu\text{F}$ or less
Operating Environment	Temperature: -40 to 80 °C, Humidity: 90 %RH or less (no condensation)
Note	Can be extended by 3 meters with the Extension Cable TR-3C30

## AIM-3010



Provided with TR-55i-mA

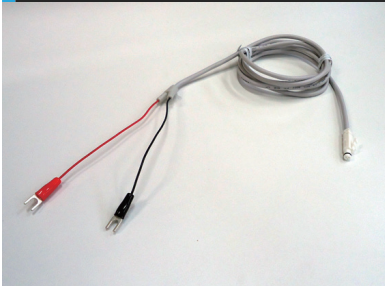
## 4-20mA Module



[Unit: mm]

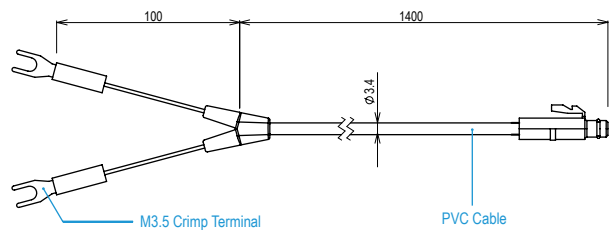
Input Resistance	0 to 20 mA Operational up to 40 mA
Measurement Resolution	0.01 mA
Measurement Accuracy	Ambient Temperature of Input Module -40 to 10°C : $\pm 0.1 \text{ mA} + 0.3 \% \text{ of reading}$ 10 to 40°C : $\pm 0.05 \text{ mA} + 0.3 \% \text{ of reading}$ 40 to 80°C : $\pm 0.1 \text{ mA} + 0.3 \% \text{ of reading}$
Input Resistance	100 $\Omega \pm 0.3 \Omega$
Sensor Connection	Cable Insertion Connection: Plus (+) 2 Parallel Terminals, Minus (-) 2 Parallel Terminals: Total 4 Terminals
Compatible Wires	Single wire: $\phi 0.32$ to $\phi 0.65 \text{ mm}$ (AWG28 to AWG22), $\phi 0.65 \text{ mm}$ (AWG22) recommended Twisted wire: 0.32 mm <sup>2</sup> (AWG22), $\phi 0.12 \text{ mm}$ or more in diameter Strip length: 9 to 10 mm
Operating Environment	Temperature -40 to 80 °C, Humidity 90 %RH or less (no condensation)
Note	Can be extended by 3 meters with the Extension Cable TR-3C30

## PIC-3150



Provided with TR-55i-P

## Pulse Input Cable



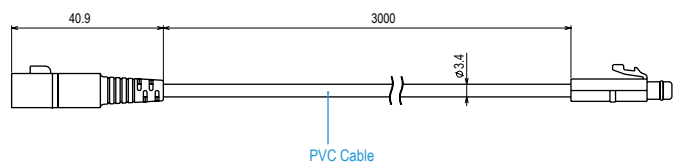
[Unit: mm]

Measurement Item	Pulse Count
Input Signal	Non-voltage Contact Input Voltage Input (0 to 27 V)
Detection Voltage	Lo: 0.5 V or less Hi: 2.5 V or more
Chattering Filter	ON: 15 Hz or less OFF: 3.5 kHz or less (when using square wave signals of 0-3 V or higher)
Response Polarity	Select either Lo → Hi or Hi → Lo
Maximum Count	61439 / Recording Interval
Input Impedance	Approx. 100 kΩ pull up
Note	When connecting the cable to the measurement object, in order to wire properly make sure to match the terminal polarities (RD+, BK -)

## TR-3C30



## Input Module Extension Cable

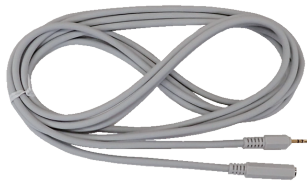


[Unit: mm]

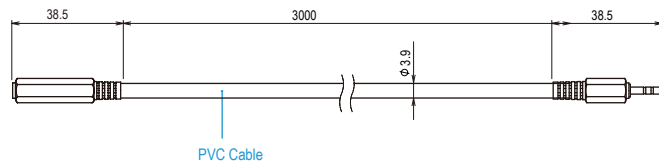
Temperature Durability	-25 to 60 °C
Waterproof Capacity	Splash proof (rated for use in daily life )
Compatible Sensors / Modules	Temp-Humidity Sensor: SHB-3101 (Discontinued: HHB-3101) Input Module: TCM-3010, PTM-3010, VIM-3010, AIM-3010, PIC-3150
Conditions for Use	Only one cable per sensor or module.

## Sensor Extension Cables

### TR-1C30



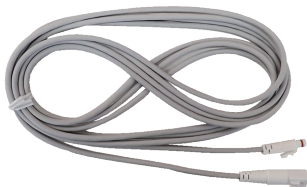
#### Sensor Extension Cable



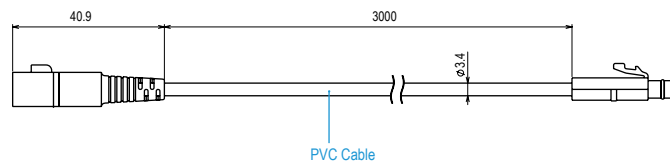
[Unit: mm]

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 (Discontinued: HHA-3151) Illuminance-UV Sensor: ISA-3151 Input Cable (Discontinued): 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



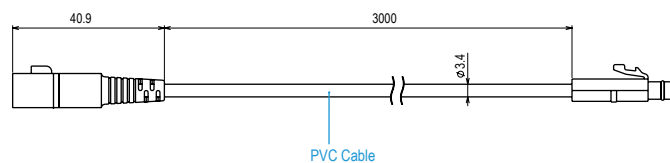
[Unit: mm]

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



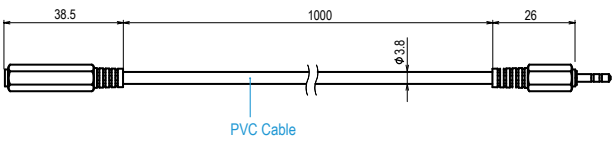
[Unit: mm]

Temperature Durability	-25 to 60 °C
Waterproof Capacity	Splash proof (rated for use in daily life)
Compatible Sensors / Modules	Temp-Humidity Sensor: SHB-3101 (Discontinued: 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* (Discontinued: 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

## AC Adaptors

### AD-05A2

#### AC Adaptor (Type A Plug)



USB Mini-B Type  
Input: AC 100-240 V  
Output: DC 5 V, 1 A  
Frequency: 50 / 60 Hz  
Cable Length: 1.5 m  
Compatible Devices:  
Data Logger: TR71A2 / 72A2 (-S) / 75A2,  
TR-71nw / 72nw (-S) / 75nw, MCR-4V / 4TC  
(Discontinued: TR71A / 72A (-S) / 75A, TR-  
71wb / 72wb (-S) / 75wb, TR-71wf / 72wf  
(-S/-H) / 75wf, TR-72nw-H)

**Note:** When using with TR7 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-05C2

#### AC Adaptor (Type C Plug)



USB Mini-B Type  
Input: AC 100-240 V  
Output: DC 5 V, 1 A  
Frequency: 50 / 60 Hz  
Cable Length: 1.5 m  
Compatible Devices:  
Data Logger: TR71A2 / 72A2 (-S) / 75A2,  
TR-71nw / 72nw (-S) / 75nw, MCR-4V / 4TC  
(Discontinued: TR71A / 72A (-S) / 75A, TR-  
71wb / 72wb (-S) / 75wb, TR-71wf / 72wf  
(-S/-H) / 75wf, TR-72nw-H)

### AD-06A1

#### AC Adaptor (Type A Plug)



Provided with TR-76Ui (-S),  
RTR-576 (-S)

Input: AC 100-240 V  
Output: DC 6 V, 500 mA  
Frequency: 50 / 60 Hz  
Cable Length: 1.8 m  
Compatible Devices:  
Base Unit: RTR500BC (Discontinued: RTR-  
500AW / 500NW, RTR-500, RTR-50, TR-  
57DCi, RTR-500DC, RTR-57C)  
Data Logger: TR-76Ui (-S), RTR-576 (-S)  
(Discontinued: TR-76Ui-H, RTR-576-H, TR-  
700W Series, RTR-7 Series)  
External Power Adaptor Kit: RTR-500A2  
(Discontinued: Kit RTR-05A1)

### AD-06C1

#### AC Adaptor (Type C Plug)



Provided with TR-76Ui (-S) /  
RTR-576 (-S)

Input: AC 100-240 V  
Output: DC 6 V, 1 A  
Frequency: 50 / 60 Hz  
Cable Length: 1.8 m  
Compatible Devices:  
Base Unit: RTR500BC (Discontinued: RTR-  
500AW / 500NW, RTR-500, RTR-50, TR-  
57DCi, RTR-500DC, RTR-57U)  
Data Logger: TR-76Ui (-S), RTR-576 (-S)  
(Discontinued: TR-76Ui-H, RTR-576-H, TR-  
700W Series, RTR-7 Series)  
External Power Adaptor Kit: RTR-500A2  
(Discontinued: RTR-05A1)

### AD-05A3

#### AC Adaptor (Type A Plug)



Input: AC 100-240 V  
Output: DC 5 V, 3 A  
Frequency: 50 / 60 Hz  
Cable Length: 1.2 m  
Compatible Devices:  
Base Unit: RTR500BM (Discontinued: RTR-  
500MBS-A, RTR-500GSM, RTR-5W, WS-2)  
Battery Charger: RTR-600BD  
Discontinued data logger: TR-7W Series,  
WDR-3

### AD-05C1

#### AC Adaptor (Type C Plug)



Provided with RTR500BW

Input: AC 100-240 V  
Output: DC 5 V, 2 A  
Frequency: 50 / 60 Hz  
Cable Length: 1.6 m  
Compatible Devices:  
Base Unit: RTR500BW, RTR500BM  
(Discontinued: RTR-500MBS-A, RTR-  
500GSM, RTR-5W, WS-2)  
Discontinued data logger: TR-7W Series,  
WDR-3

### AD-05A4

#### AC Adaptor (Type A Plug)



Provided with RTR500BW

Input: AC 100-240 V  
Output: DC 5 V, 1 A  
Frequency: 50 / 60 Hz  
Cable Length: 1.8 m  
Compatible Devices: Base Unit RTR500BW

**Note:** The optional AC adaptor "Type A Plug" can be used in USA and Canada, and "Type C Plug" in Europe. For usage in other countries, please contact your local distributor.

## Battery Power Supply Accessories

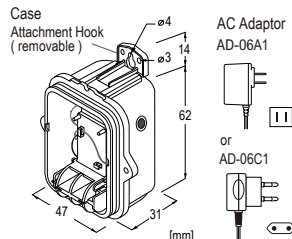
### RTR-500A2

#### External Power Adaptor Kit



Internal Ni-MH battery provides about 4 days\* of AC failure backup.  
\*Varies depending on the amount of charge in the Ni-MH battery.

Voltage Input: DC6V  
Charging Method: Trickle Charge  
Operational Temperature Range: 0 to 60 °C  
Waterproof Capacity: None  
Weight: About 37 g (without AC Adaptor)  
Included Items:  
AC Adaptor (AD-06A1 or AD-06C1),  
Case and Attachment Hook, Rubber  
Packing, Lock Screw x 2, Rubber  
O-ring  
Compatible Devices:  
TR42A / 43A, RTR502B / 503B / 505B  
/ 507B (Discontinued: TR42, RTR-502 /  
503 / 505 / 507S / 507)



**Note:** RTR-500A2 should not be used with the RTR501B and TR41A as it will cause the RTR501B and TR41A to display a higher than actual temperature reading of up to 3 °C.

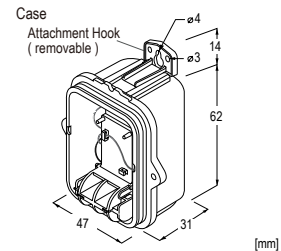
### RTR-500B1

#### Large Capacity Battery Kit



About 4 years of battery life

Power: Lithium Battery x 1 (LS26500) \*1  
Battery Life: About 4 years \*2  
Waterproof Capability: Splash proof  
Operational Temperature Range:  
-40 to 80 °C \*3  
Weight: About 75 g (including Lithium  
Battery)  
Included Items:  
Maintenance Set TR-00P1, Case and  
Attachment Hook  
Compatible Devices:  
TR41A / 42A / 43A, RTR501B / 502B  
/ 503B / 505B / 507B (Discontinued:  
TR41 / 42, RTR-501 / 502 / 503 / 505 /  
507S / 507)



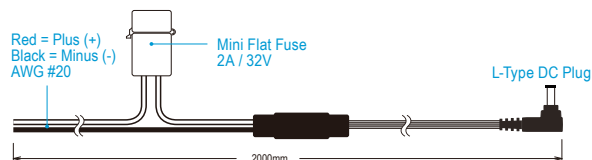
- \*1: When using RTR-500B1 it is necessary to purchase Lithium Battery (LS26500). For details, contact your local authorized distributor.
- \*2: Battery Life varies depending on measuring environment, recording interval, transmission frequency, and ambient temperature. The battery life estimated here 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.

### BC-0204

#### Battery Connection Adaptor



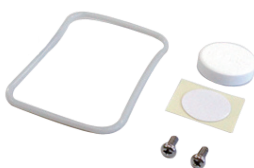
Power Source Conditions:  
Voltage: input DC 9-38 V, output DC 5 V  
Current: MAX 2 A  
Compatible Devices:  
Base Unit: RTR500BC, RTR500BM  
**Note:** Prepare a battery that meets the above  
conditions.



## Maintenance Set

### TR-00P1

#### Maintenance Set

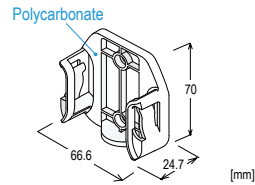


Compatible Devices:  
TR41A / 42A / 43A, RTR501B / 502B /  
503B / 505B / 507B, TR-51i / 52i / 55i  
Discontinued:  
TR41 / 42, RTR-501 / 502 / 503 / 505 /  
507S / 507, RTR-5 Series, TR-5S / 5 Series  
Included Items:  
Rubber Packing, Silica Gel, Double-  
Sided Adhesive Tape, Lock Screw



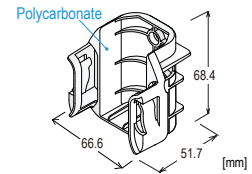
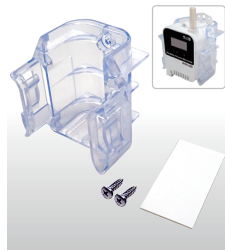
## Wall Attachments

### TR-05K3



**Compatible Devices:**  
TR41A / 42A / 43A, TR-51i / 52i / 55i,  
RTR501B / 502B / 503B / 505B / 507B  
(Discontinued: TR41 / 42, RTR-501 / 502 /  
503 / 505 / 507S / 507, RTR-51A / 52A / 53A,  
RTR-52Pt, RVR-52, TR-5S / 5 Series)  
**Operational Temperature Range:** -40 to 80 °C  
**Included Items:**  
Lock Screws for fastening to wall, Double-  
Sided Adhesive Tape

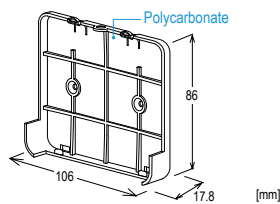
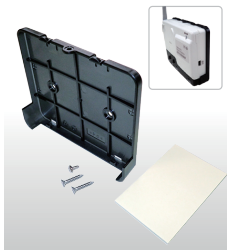
### TR-05K3L



**Compatible Devices:**  
RTR501BL / 502BL / 503BL / 505BL / 507BL,  
TR41A / 42A / 43A\*, TR45\*  
(Discontinued: TR41 / 42\*, RTR-501L / 502L  
/ 503L / 505L / 507SL / 507L, RTR-51AL /  
52AL / 53AL, RTR-52PtL, RVR-52L)  
**Operational Temperature Range:** -40 to 80 °C  
**Included Items:**  
Lock Screws for fastening to wall, Double-  
Sided Adhesive Tape  
\* TR41A / 42A / 43A / 41 / 42: Can be used when  
attaching Large Capacity Battery Kit or External  
Power Adaptor Kit.

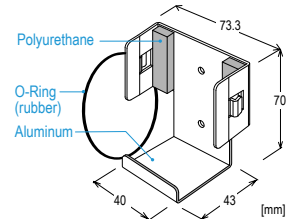
**Note:** Cracking may occur if polycarbonate is exposed to strong impact at temperatures of -30 °C or lower

### TR-5WK1



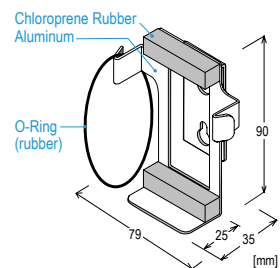
**Compatible Devices:**  
Data Collector: RTR500BW (Discontinued:  
RTR-500NW / 500AW, RTR-5W, WS-2 )  
Discontinued data logger WDR-3  
**Included Items:**  
Lock Screws for fastening to wall, Lock  
Screw for fastening the device, Double-  
Sided Adhesive Tape

### TR-5GK1



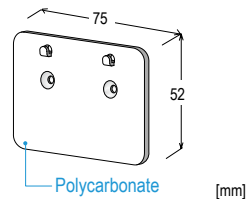
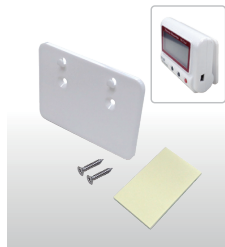
**Compatible Device:**  
RTR500BM (Discontinued: RTR-500MBS-A)  
**Included Items:**  
O-Ring, Lock Screws,  
Double-Sided Adhesive Tape

### AT-50K1



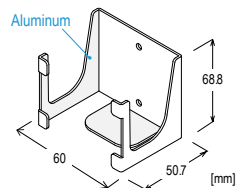
**Compatible Device:**  
RTR500BC (Discontinued: RTR-500)  
**Included Items:**  
O-Ring, Lock Screws,  
Double-Sided Adhesive Tape

### TR-07K2



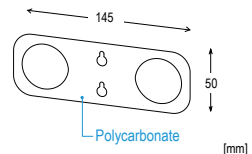
**Compatible Devices:**  
TR71A2 / 72A2 (-S) / 75A2, TR-71nw / 72nw  
(-S) / 75nw, TR-74Ui (-S) / 73U, RTR-574 (-S)  
(Discontinued: TR71A / 72A (-S) / 75A, TR-  
71wb / 72wb (-S) / 75wb / 71wf / 72wf (-S/-  
H) / 75wf, TR-72nw-H, TR-74Ui-H, RTR-  
574-H, TR-700W Series, TR-71Ui / 72Ui /  
77Ui, TR-71U / 72U)  
**Included Items:**  
Lock Screws for fastening to wall,  
Double-Sided Adhesive Tape

### AT-76K1



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

### AT-32K2



**Compatible Device:**  
TR32B (Discontinued: RTR-322)  
**Included Items:** Lock Screws for fastening to  
wall

## Communication Cables

### US-15C

#### USB Mini-B Cable

For Communication with PC  
Cable Length: 1.5 m



### TR-07C

#### Serial Communication Cable

For Communication with PC  
Cable Length: 1.5 m  
Connector: D-sub 9 pin



PC ⇔ Data Logger TR-74Ui (-S) / 76Ui (-S) / 73U (Discontinued: TR-74Ui-H / 76Ui-H)  
Base Unit: RTR500BC (Discontinued: TR-57DCi, RTR-500DC, RTR-500)

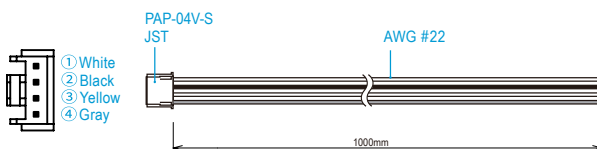
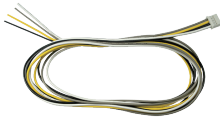
**Note:** Customers wishing to write their own software, please contact your local distributor for the serial communications protocol specifications.

## Cable

### AC0101

#### Alarm Connection Cable

Compatible Devices:  
Base Unit: RTR500BM (Discontinued: RTR-500MBS-A)  
Data Logger: RTR-576 (-S), TR-76Ui (-S)  
(Discontinued: RTR-576-H, TR-76Ui-H)



**Note:** Please refer to "RTR500B series Help" or "TR-76Ui Operation Guide" before use. <https://tandd.com/manual/>

## Antennas

### CSR-0011

#### Antenna for RTR500B Series Base Units

Antenna Length: 135 mm  
Connector: RP-SMA  
Compatible Devices:  
RTR500BW, RTR500BC, RTR500BM



### CEL-0151

#### Extension LTE Antenna

Antenna Length: 88.5 mm  
Cable Length: 1.5 m  
Connector: RP-SMA  
Compatible Devices: RTR500BM



### SO-TD1

#### T&D Software



Software Included:

- RTR500BW for Windows (US / EU)
- RTR500BM for Windows (US / EU)
- RTR500BC for Windows (US / EU)
- RTR-600 Settings Utility (US)
- TR7 for Windows
- CO2 Recorder for Windows
- Illuminance UV Recorder for Windows
- MCR for Windows
- T&D Recorder for Windows
- T&D Data Server
- T&D Graph

**Note:** Optional DVD-ROM that contains the Windows software for current T&D products. Software can be downloaded from T&D's Website, but for those who prefer, a DVD is available for purchase.