



**Remote control opening and closing**



**Protocol to read remote control status**



**Stable performance, Reliable and safe**



**Sustainable power supply**

## Application scenarios

Electricity Protection, Sustainable Electricity



Electrified railway station as power supply, transportation power distribution system, highway electromechanical system



Smart mining, factory electricity, base station



Environmental Monitoring Station, Remote Irrigation, Smart Greenhouse

## Technical parameter

Electrical Characteristics		
Power Distribution System		EN 50567
Rated Voltage(Ue)	(V)	TT - TN - S 230 AC (1)
Min Rated Voltage(Min Ue)	(V)	85% Ue
Max Rated Voltage(Max Ue)	(V)	110% Ue
Rated Insulation Voltage(Ui)	(V)	500
Dielectric Strength	(V)	2500 AC for 1 minute
Rated Withstand Voltage(Uimp)	(kV)	4
Over-voltage Category		III
Rated Frequency	(Hz)	50
Breaking Capacity of Earthleakage(IΔn)	(A)	The IΔn of Related Breaker
Rated Residual Short Circuit Current (IΔo)	(A)	The IΔo of Related Breaker
	2	1P - 2P - 3P - 4P C - D
MCB Type		AC - A - A(R) - A(S)
RCBO Type		
Rated Current(In)	(A)	25 - 40 - 63 - 80 - 100
Rated Residual Current(ΔIn)	(mA)	30 - 100 - 300 - 500
Rated non-operating resistance between electrical components and earth		8 (30mA) - 2.5 (100/300/500mA)
Rated working resistance between live parts and earth	(Ω)	16 (30mA) - 5 (100/300/500mA)
Static Power	(VA)	1 1
Power of remote control	(VA)	20 20
Mechanical Characteristics		
The Width of DIN Module	(mm)	1 30 1
Max Operation Frequency	(times/h)	30
Maximum mechanical durability (total number of operations)		10000
Terminal Part of Breaker	(mm)	Soft Cables: 1x35 ~ 6x2x16 ~ 6x1x16x2x10 hard wire: 1x35 ~ 6x2x16 ~ 6x1x16x2x10
Circuit breaker rated tightening torque	(Nm)	3 (IDP) ~ 2 (IDP NA)
Installation location		any
Protection Grade of Circuit Breaker		IP20 (I) ~ IP40 (I)
Environment Characteristics		
Pollution Grade		2
Work Temperature	(°C)	-25 ~ +60 -25 ~ +60
Storage Temperature	(°C)	-40 ~ +70
Relative Humidity		55°C ~ RH 95%
Auxiliary Control Characteristics		
Contact Type	yes	yes
Rated Voltage	-	Electronic Relay
Rated Current	-	5-230 AC/DC
Frequency	-	0.6 (min) ~ 1(max)
Sub-control Mode	-	50
Cable Connection	-	NO/NC: Signal of Interlock Position
Rated Tightening Torque	-	2.5 0.4
Remote control function		
Auxiliary contacts for remote operating status access		•
Internal Electrical Protection	PTC	PTC



## RCD Remote Control Device MT53RI Series

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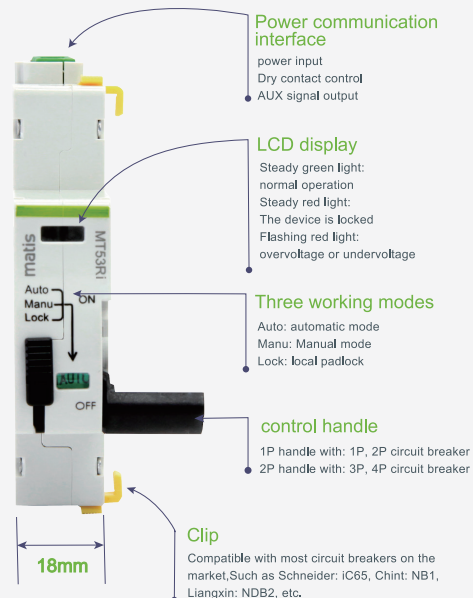
Power on with intelligence, safer and more efficient.



## RCD Remote Control Device MT53RI

RCD\_MT53RI Remote control device can achieve the following functions:

- Remote closing/opening circuit breaker, the circuit breaker can be equipped with residual current action protection accessories or other electrical accessories
- Resetting of a tripped circuit breaker, subject to compliance with current safety regulations
- Local control of circuit breaker with handle
- Safe operation on site with padlock attachment



## There are 2 optional actions after the circuit breaker has tripped:

- AUTO mode: allow remote reset
- MANU mode: Disable remote reset

## RCD remote control device ensures sustainable power supply

### Remote control device

The MT53RI automatic recloser series is a compact control unit with a width of only 18MM, can be adapted to the miniature circuit breakers of Schneider, Liangxin, Chint and many other manufacturers on the market.

### I/O control

When the MT53RI is in Auto mode, connect the device to the power supply, and use the i/o interface to remotely control the device to control the opening and closing of the device.

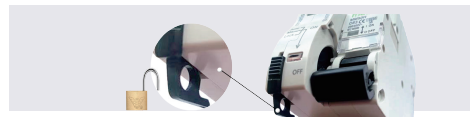


### More flexible adaptation

Compatible with circuit breakers  
1P, 2P, 3P, 4P

### Local padlock

Safety locking, the MT53RI series has a mechanical padlock mechanism to adjust the working mode to Padlock mode, local locking. Make sure that the operator performs maintenance work in a safe state.



## Product adaptation

Circuit Breaker	MCB			RCD		RCBO			
model	1P	2P	3P/4P	2P	4P	1P	2P	3P	3P+N
MT53RI ■ ■ ■ -1 ■	■	■	■	■	■	■	■	■	■
MT53RI ■ ■ ■ -2 ■	■	■	■	■	■	■	■	■	■
MT53RI ■ ■ ■ -11 ■	■	■	■	■	■	■	■	■	■
MT53RI ■ ■ ■ -12 ■	■	■	■	■	■	■	■	■	■

Note:

■ represents matching circuit breakers, which are W [Matis 50 series], K [Matis 90 series], H [Matis 22 series], J [Matis 60 series], N [Schneider Acti 9 series MCB/RCBO], N [Schneider Acti 9 series RCD IID], Z [Chint NB1 MCB], C [Chint NL1 RCCB];

■ represents the status output function, which are 01 [NC Aux], 10 [NO Aux], and no coding [no Aux function];

■ represents voltage, respectively E[DC24-48V], F[DC110V], G[DC220V], N[AC220V]

## Terminal picture



MT53RI

Port	explanation
L	Live Line
N	Neutral line
OPEN	Active trip input
CLOSE	Active closing input
AUX	Opening and closing status output

The RCD\_MT53RI remote control accessory with AUX interface can realize the following functions:

- Direct connection with programmable logic controller, monitoring system and any other communication equipment, input terminal is active signal (I/O signal) / output terminal is passive signal (OF status indication)
- "OF" passive dry contact realizes remote indication

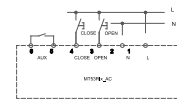
## Wiring diagram

### Working mode: I/O control opening and closing

OPEN: Active trip input

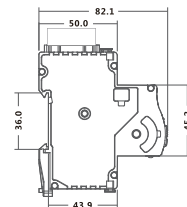
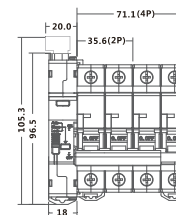
CLOSE: Active closing input

AUX: output of opening and closing status



MT53RIx\_AC

## Dimensions





## Remote control opening and closing



## Protocol to read remote control status



## Stable performance, Reliable and safe



## Sustainable power supply

## Application scenarios

## Electricity Protection, Sustainable Electricity



Electrified railway station as power supply, transportation power distribution system, highway electromechanical system



Smart mining, factory electricity, base station

Environmental Monitoring Station, Remote Irrigation,  
Smart Greenhouse

## Technical parameter

Electrical Characteristics			
Standard		EN 50567	
Power Distribution System		TT - TN - S	
Rated Voltage(U <sub>N</sub> )	(V)	230 AC (1)	
Min Rated Voltage(Min U <sub>N</sub> )	(V)	85	
Max Rated Voltage(Max U <sub>N</sub> )	(V)	110% U <sub>N</sub>	
Rated Insulation Voltage(U <sub>i</sub> )	(V)	500	
Dielectric Strength	(kV)	2500 AC for 1 minute	
Rated Withstand Voltage(U <sub>imp</sub> )	(kV)	4	
Over-voltage Category		III	
Rated Frequency	(Hz)	50	
Resisting Capacity of Earthquake(L <sub>10</sub> m)	(s)	The L <sub>10</sub> m of Related Breaker	
Rated Residual Short Circuit Current (I <sub>sc</sub> )	(A)	The L <sub>10</sub> m of Related Breaker	
		2	4
		1P - 2P - 3P - 4P	
MCB Type		C - D	
MCB Type		AC - A - A(R) - A(S)	
RCBO Type			
Rated Current(I <sub>n</sub> )	(A)	25 - 40 - 63 - 80 - 100	
Rated Residual Current(I <sub>Δn</sub> )	(mA)	30 - 100 - 300 - 500	
Rated non-spraying resistance between electrical components and earth		8 (30mA) - 2.5 (100/300/500mA)	
Rated working resistance between live parts and earth	(MΩ)	16 (30mA) - 5 (100/300/500mA)	
Static Power	(VA)	1	1
Power of remote control	(VA)	20	20
Mechanical Characteristics			
The Width of DIN Module		1	1
Max Operation Frequency	(times/h)	30	
Maximum mechanical durability (total number of operations)		10000	
Terminal Part of Breaker	(mm)	Soft Cable: 1x35 - 2x16 - 5 1x16+2x10 hard wire: 5 1x35 - 5 2x16 - 5 1x16+2x10	
Circuit breaker rated tightening torque	(N.m)	3 (DP) - 2 (DP N)	
Installation location		any	
Protection Grade of Circuit Breaker		IP20 (I) - IP40 (I)	
Environment Characteristics			
Pollution Grade		2	
Work Temperature	(°C)	-25 ~ +60	-25 ~ +60
Storage Temperature	(°C)	-40 ~ +70	
Relative Humidity		55°C - RH 85%	
Communication parameters			
BAUD		Default as 9600, Configurable	
Check Digit		No Check digit	
Data Digit		8	
Stop Digit		1	
Device Address		Factory Default Address: 1	
Remote control function			
Auxiliary contacts for remote operation status access		+	
Internal Electrical Protection		PTC	PTC



# RCD Remote Control Device MT53RS Series

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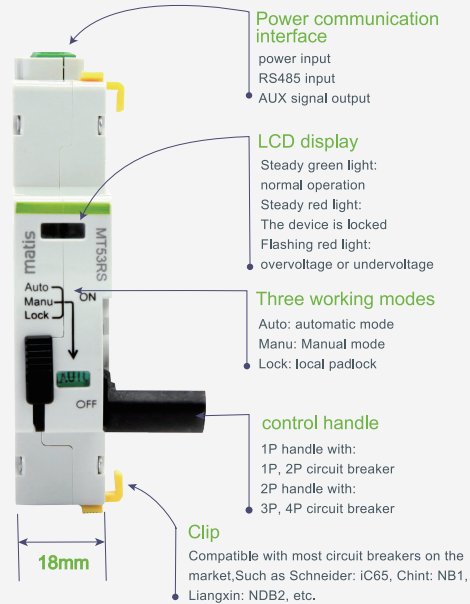
Power on with intelligence, safer and more efficient.



RCD Remote Control Device MT53RS

RCD\_MT53RS Remote control device can achieve the following functions:

- Remote closing/opening circuit breaker, the circuit breaker can be equipped with residual current action protection accessories or other electrical accessories
- Resetting of a tripped circuit breaker, subject to compliance with current safety regulations
- Local control of circuit breaker with handle
- Safe operation on site with padlock attachment



There are 2 optional actions after the circuit breaker has tripped:

- AUTO mode: allow remote reset
- MANU mode: Disable remote reset

RCD remote control device ensures sustainable power supply

Remote control device

The MT53RS automatic redosers series is a compact control unit with a width of only 18MM, can be adapted to the miniature circuit breakers of Schneider, Liangxin, Chint and many other manufacturers on the market.

RS485\_Modbus control

When the MT53RS is in Auto mode, connect the device to the power supply, and the device is in the open state. It can use RS485 for remote control, control the opening and closing of the device, and can also perform operations such as status reading and address reading through the Modbus protocol.

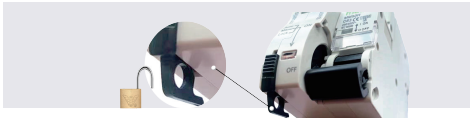


More flexible adaptation





Compatible with circuit breakers  
1P, 2P, 3P, 4P

Local padlock

Safety locking, the MT53RS series has a mechanical padlock mechanism to adjust the working mode to Padlock mode, local locking. Make sure that the operator performs maintenance work in a safe state.

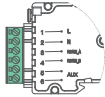


Product adaptation

Circuit Breaker	MCB			RCD		RCBO				
model	1P	2P	3P/4P	2P	4P	1P	2P	3P	3P+N	4P
MT53RS  -1										
MT53RS  -2										
MT53RS  -11										
MT53RS  -12										

Note:  
■ represents matching circuit breakers, which are W [Matis 50 series], K [Matis 90 series], H [Matis 22 series], J [Matis 60 series], N [Schneider Acti 9 series MCB/RCBO], N [Schneider Acti 9 series RCD IID], Z [Chint NB1 MCB], C [Chint NL1 RCBO];  
■ represents the status output function, which are 01 [NC Aux], 10 [NO Aux], and no coding [no Aux function];  
■ represents voltage, respectively E [DC24-48V], F [DC110V], G [DC220V], N [AC230V]

Terminal picture



Port	Explanation
L	Live Line
N	Neutral line
RS485_A	Modbus protocol
RS485_B	Modbus protocol
AUX	Opening and closing status output

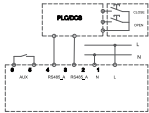
The RCD\_MT53RS remote control accessory with AUX interface can realize the following functions:

- Realize fast and reliable communication connection with intelligent gateway module (host computer) through RS485 wiring
- "OF" passive dry contact realizes remote indication

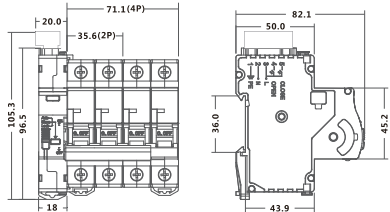
Wiring diagram

Working mode: RS485control opening and closing

RS485\_A: Modbus protocol  
RS485\_B: Modbus protocol  
AUX: output of opening and closing status



Dimensions







## Remote Control



## Tuya APP to Read the Reclosing Status



## Reliable and Safe (external attachment, does not affect the main circuit)



## Sustainable Power Supply

## Application Scenarios

Electricity protection and sustainable power consumption



Electricified railway station power supply, transportation power distribution system, and highway electromechanical system



Intelligent mining, factory power consumption, and base station



Environmental monitoring station, remote irrigation, smart greenhouse

## Technical parameter

Electrical Characteristics		
Standard		EN 50567
Power Distribution System		TT - TN - S
Rated Voltage(U <sub>ie</sub> )	(V)	230 AC (1)
Min Rated Voltage(Min U <sub>ie</sub> )	(V)	85% U <sub>ie</sub>
Max Rated Voltage(Max U <sub>ie</sub> )	(V)	110% U <sub>ie</sub>
Rated Insulation Voltage(U <sub>i</sub> )	(V)	500
Dielectric Strength	(V)	2500 AC for 1 minute
Rated Withstand Voltage(U <sub>imp</sub> )	(kV)	4
Over-voltage Category		III
Rated Frequency	(Hz)	50
Leakage Making/Breaking Capability (I <sub>dm</sub> )	(A)	The I <sub>dm</sub> of Related Breaker
Rated Condition Residual Short Circuit Current (I <sub>sc</sub> )	(A)	The I <sub>sc</sub> of Related Breaker
Poles	2	4
RCB Type	1P + 2P + 3P + 4P	
RCBO Type	AC + A + A[R] + A[S]	
Rated Current(I <sub>n</sub> )	(A)	25 - 40 - 63 - 80 - 100
Rated Residual Current(I <sub>Δn</sub> )	(mA)	30 - 100 - 300 - 500
Rated Non-operating Resistance Between the Live Part and Ground(R <sub>do</sub> )	(Ω)	8 (30mA) - 2.5 (100/300/500mA)
Rated Operating Resistance Between the Live Part and Ground(R <sub>do</sub> )	(Ω)	16 (30mA) - 5 (100/300/500mA)
Static Power	(VA)	1
Power of remote control	(VA)	20
Mechanical Characteristics		
The Width of DIN Module	1	1
Reclosing time (specify)	10-60-300	
Maximum Mechanical Durability (real Number of Operations)	10000	
Maximum Number of Continuous Auto-reclosings	3	
Counter Reset Time Number Continuous Auto-reclosings	60	
Circuit Breaker Terminal Section	(mm <sup>2</sup> )	Soft Cable: 1x35 + 5 2x16 + 5 1x16+2x10 hard wire: 5 1x35 + 5 2x16 + 5 1x16+2x10
Circuit Breaker Rated Tightening Torque	(Nm)	3 (IDP) - 2 (IDP NA)
Installation Location	any	
Protection Grade	IP20(outside the cabinet)+P40 (inside the cabinet)	
Environment Characteristics		
Pollution Level	2	
Work Temperature	(°C)	-25 +60
Storage Temperature	(°C)	-40 +70
Relative Humidity	55°C - RH 95%	



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AloT Electric



## WiFi Remote Control Device MT53RW Series

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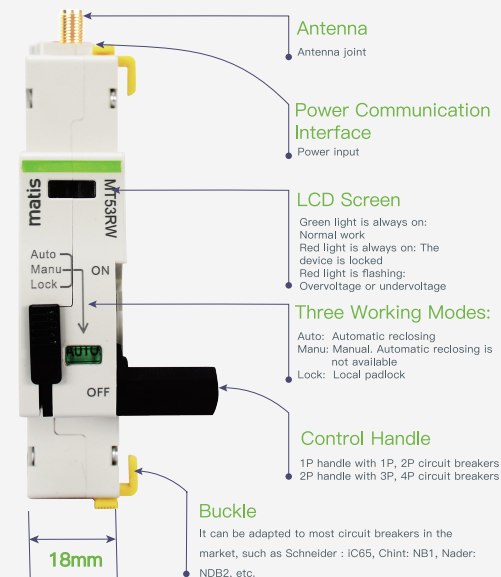
We make electricity safer and smarter!



# WiFi Remote Control Device MT53RW

MT53RW remote control device can realize the following functions:

- The circuit breaker can be opened and closed remotely, and it can be equipped with residual current protection devices or other electrical devices
- Reset tripped circuit breakers in compliance with current safety regulations
- Local control of the circuit breaker is available with the help of a handle
- Safe operation on site is ensured by padlocking the device



## Two Operations for Option after the Circuit Breaker Trips:

- AUTO mode: Remote reset is permitted
- MANU mode: Remote reset is inhibited

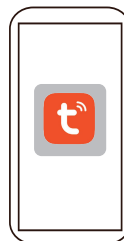
# WiFi Remote Control to Ensure Continuous Power Supply

## Recloser Control Mechanism

MT53RW remote control mechanism series is a compact control unit with a width of only 18mm, which can be adapted to the MCB&RCB of many manufacturers such as Schneider, Nader, Chint and so on on the market.

## WIFI Control

MT53RW is in Auto mode, and the device is connected to the power supply. You can connect the device to WIFI and use the [Tuya] APP WIFI Control for remote control to control the opening and closing of the device.



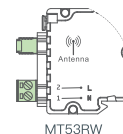
## More Flexibility to Match

It can be adapted to 1P, 2P, 3P, and 4P circuit breakers.

## Device Adaptation

Circuit Breaker		MCB			RCD		RCBO				
Models	Poles	1P	2P	3P/4P	2P	4P	1P	2P	3P	3P+N	4P
MT53RW-1N		✓	✓		✓		✓	✓			
MT53RW-2N				✓		✓			✓	✓	✓

## Terminal Diagram



Terminal	Description
L	Live line L
N	Neutral line N
Antenna	Wifi installation point

## Local Padlock

Safety locking. MT53RW series has a mechanical padlock mechanism. Adjust the working mode to padlock mode to realize local locking to ensure that the operator can access the maintenance work in a safe status.



## Dimensional Drawing

