



## 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 60957
Rated Voltage(Ue)	TT+TN-S
Min Rated Voltage(Min Ue)	230 AC (1)
Max Rated Voltage(Max Ue)	85% Ue
Rated Isolation Voltage(Ui)	110% Ue
Dielectric Strength	500V
Insulation Working Voltage(Uimp)	2500 AC for 1 minute
Over-voltage Category	III
Rated Frequency	50Hz
Breaking Capacity of EarthLeakage(IΔ,m)	The IΔ,m of Related Breaker
Rated Residual Short Circuit Current (IΔc)	The IΔc of Related Breaker
	2 1P - 2P - 3P - 4P
MCB Type	C - D
MCB Type	AC - A + A(R) - A(S)
RCBO Type	
Rated Current(I)	25 - 40 - 63 - 80 - 100
Rated residual Current(IΔn)	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	16 (30mA) - 5 (100/300/500mA)
Static Power	1VA
Power of remote control	20VA
Mechanical Characteristics	
The Width of DIN Module	1
Max Operation Frequency	30 (operations/h)
Maximum mechanical durability (total number of operations)	10000
Terminal Part of Breaker	Soft Cable: 1x35 + 2x16 + 5x16+2x10 hard wire: 3x35 + 2x16 + 5x16+2x10
Circuit breaker rated lightning torque	3 (IDP) - 2 (IDP NA)
Installation location	Indoor
Protection Grade of Circuit Breaker	IP20 (I - IP40 (I))
Environment Characteristics	
Pollution Grade	2
Work Temperature	-25 +60
Storage Temperature	-40 +70
Relative Humidity	55% C + RH 95%
Auxiliary Contact Characteristics	
Contact Type	yes
Rated Voltage	4V
Rated Current	1A
Frequency	50Hz
Working Mode	-
NO/NC Connection	NO/NC: Signal of Handle Position
Rated Tightening Torque	5Nm
Rated Tightening Torque	0.4
Remote control function	
Auxiliary contacts for remote operating status access	*
Internal Electrical Protection	PTC



**RCD Remote Control Device**  
**MT53RI Series**

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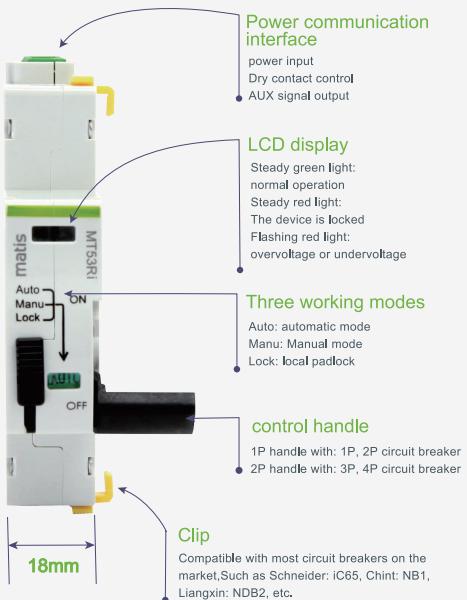
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Power on with intelligence, safer and more efficient.

## 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 pole(s)	MCB		RCD		RCBO					
	1P	2P	3P/4P	2P	4P	1P	2P	3P	3P+N	4P
MT53RI 1P-1	✓	✓		✓	✓	✓	✓	✓		
MT53RI 1P-2					✓				✓	✓
MT53RI 1P-11	✓									
MT53RI 1P-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 10], 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

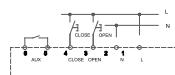
Port	Explanation
L	Live Line
N	Neutral line
OPEN	Active trip input
CLOSE	Active closing input
AUX	Opening and closing status output

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

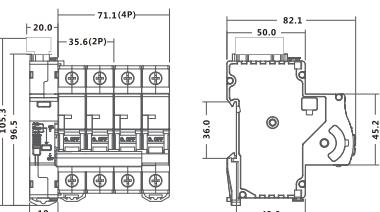
- Direct connection with programmable logic controller, monitoring system and any other communication equipment; input terminal is active signal (I/O signal) / output terminal is passive signal (O status indication)
- "OF" passive dry contact realizes remote indication

### 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



### 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 60947	
Power Distribution System	TT+TN-S	
Rated Voltage(Ue)	230 AC (1)	
Min Rated Voltage(Min Ue)	85% Ue	
Max Rated Voltage(Max Ue)	110% Ue	
Rated Insulation Voltage(Ui)	500	
Dielectric Strength	2500 AC for 1 minute	
Operating Voltage(Uimp)	1000	
Over-voltage Category	III	
Rated Frequency	50	
Breaking Capacity of EarthLeakage(IΔ, m)	The IΔ of m of Related Breaker	
Rated Residual Short Circuit Current (IΔc)	The IΔc of Related Breaker	
	2	4
MCB Type	1P - 2P - 3P - 4P	
MCB Type	C - D	
RCBO Type	AC - A + B(R) - A(S)	
Rated Current(Ir)	25 - 40 - 63 - 80 - 100	
Rated residual Current(IΔn)	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	16 (30mA) - 5 (100/300/500mA)	
Static Power	(VA)	
Power of remote control	(VA)	
Mechanical Characteristics		
The Width of DIN Module	1	
Max Operation Frequency (operations/h)	30	
Maximum mechanical durability (total number of operations)	10000	
Terminal Part of Breaker	Soft Cable: 4 x 15mm <sup>2</sup> + 2 x 16mm <sup>2</sup> + 5 x 16mm <sup>2</sup> + 2 x 10mm <sup>2</sup> hard wire: 5 x 20mm <sup>2</sup> + 2 x 16mm <sup>2</sup> + 5 x 16mm <sup>2</sup> + 2 x 10mm <sup>2</sup>	
Circuit breaker rated lightning torque (Nm)	3 (IDP) - 2 (IDP NA)	
Installation location	Indoor	
Protection Grade of Circuit Breaker	IP20 (I - IP40 (t))	
Environment Characteristics		
Pollution Grade	2	
Work Temperature	-25 +60	
Storage Temperature	-40 +70	
Relative Humidity	55°C + RH 95%	
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 operating status access	PTC	
Internal Electrical Protection	PTC	



## RCD Remote Control Device MT53RS Series

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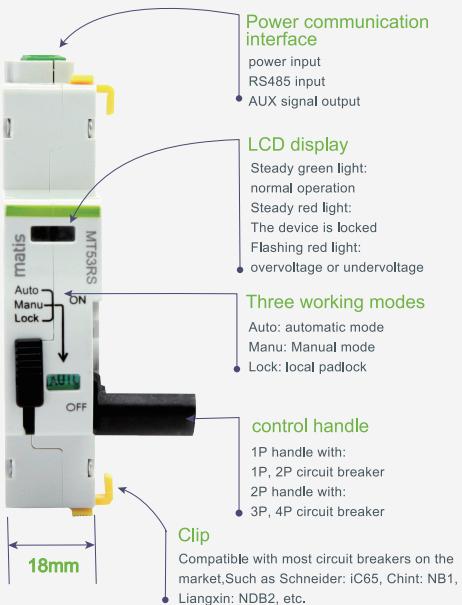
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Power on with intelligence, safer and more efficient.

## 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 redloser 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 1-1	✓	✓	✓
MT53RS 1-2		✓	✓
MT53RS 1-11	✓		
MT53RS 1-12	✓		

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 10], Z [Chint NB1 MCB], C [Chint NL1 RCCB];

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

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

### 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
- “OFF” passive dry contact realizes remote indication

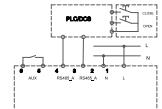
### Wiring diagram

#### Working mode: RS485 control opening and closing

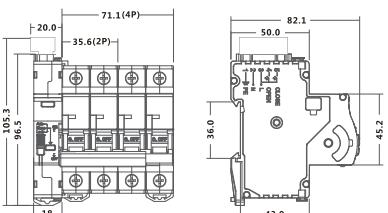
RS485\_A:Modbus protocol

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



Electrified 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 60947	
Power Distribution System	IT - TN - S	
Rated Voltage(Ue)	230V AC (1)	
Min Rated Voltage(Min Ue)	85% Ue	
Max Rated Voltage(Max Ue)	110% Ue	
Rated Frequency(f) <sup>1</sup>	50	
Dielectric Strength	2500 AC for 1 minute	
Rated Withstand Voltage(Uimp)	4	
Overvoltage Category	III	
Rated Frequency	Hz	
Leakage Making/Breaking Capability (IΔm)	The IΔm of Related Breaker	
Rated Condition Residual Short Circuit Current (Irc)	The IΔc of Related Breaker	
	2	4
MCB Type	1P - 3P - 3P + 4P	
RCBO Type	AC - A - A(R) - A(S)	
RCBO Type		
Rated Current(I <sub>n</sub> )	25 ~ 63 ~ 80 ~ 100	
Rated Non-operating Resistance Between the Live Part and Ground(R <sub>dn</sub> )	30 ~ 100 ~ 300 ~ 500	
Rated Non-operating Resistance Between the Live Part and Ground(R <sub>dn</sub> )	8 (30mA) ~ 2.5 (100/300/500mA)	
Rated Operating Resistance Between the Live Part and Ground(R <sub>op</sub> )	16 (30mA) ~ 5 (100/300/500mA)	
Static Power	W	
Power of remote control	VA	
Mechanical Characteristics		
The Width of DIN Module	1	1
Reclosing time	(open/closing)	10-60-300
Maximum Mechanical Durability (Total Number of Operations)	10000	
Maximum Number of Continuous Auto-reclosings	5	
Counter Reset Time Number Continuous Auto-reclosings	60	
Circuit Breaker Terminal Section	Soft Cable < 1x35 + 2x16 + 5 x 1x16+2x10 hard wire < 1x35 + 2x16 + 5 x 1x16+2x10	
Circuit Breaker Rated Tightening Torque	3 (IDP) - 2 (IDP NA)	
Installation Location	any	
Protection Grade	IP20(outside the cabinet)IP40 (inside the cabinet)	
Environment Characteristics		
Pollution Level	2	
Work Temperature	°C	-25 ~ +60 ~ -25 ~ +60
Storage Temperature	°C	-40 ~ +70
Relative Humidity	55% ~ RH 95%	



**WiFi Remote Control Device**  
**MT53RW Series**

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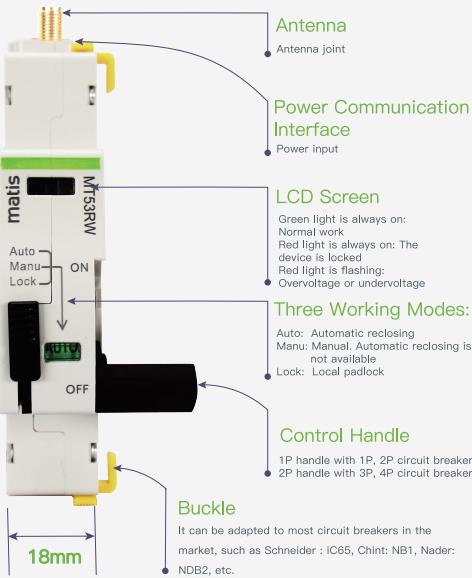
We make electricity safer and smarter!



# 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 action 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&RCCB 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.



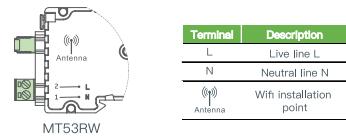
## More Flexibility to Match

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

## Device Adaptation

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

## Terminal Diagram



## 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

