

# DIN Rail Smart Switch TO-Q-SY1 TO-Q-SY2 Series



Communication method:  
W - Wi-Fi, R - RS 485  
Z - Zigbee, L - LTE, M - Matter

Rated Current:  
6, 10, 16, 20, 25, 32, 40, 50, 63

Series Code

**TO**  
Company Code

**Q-SY1**

**J**

Blank:  
Without Metering Function  
L:  
With Metering Protection

**W**

Platform Technical Support:  
T - Tuya, E - eWeLink  
X - Mi, C - Customized  
M - Tasmota

**T**

**63**

**DC**

Ambient Voltage:  
Blank: Alternating Current  
DC: Direct Current

# DIN Rail Smart Switch TO-Q-SY1 TO-Q-SY2 Series

The TO-Q-SY1 and TO-Q-SY2 are rail-mounted smart series switches, compact in size and versatile in application. They address the issue of limited installation space in circuits, transforming traditional distribution boxes into smart ones. They feature low power consumption, power consumption monitoring, over and under voltage protection, temperature protection, overcurrent protection, and integration with intelligent automation systems.



**Remote  
Control**

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**Voice  
Control**

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**Time  
Mode**

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**Circuit  
Protection**

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**Electricity  
Consumption**

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**Real-Time  
Power / Current / Voltage**

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**Temperature  
Protection**

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**Operation  
Log**

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**DIN Rail  
Installation**

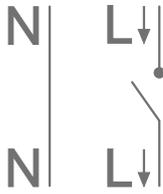
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**Maintenance  
Mode**

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## I TO-Q-SY1 Non-Metering Type



RDT+RELAY

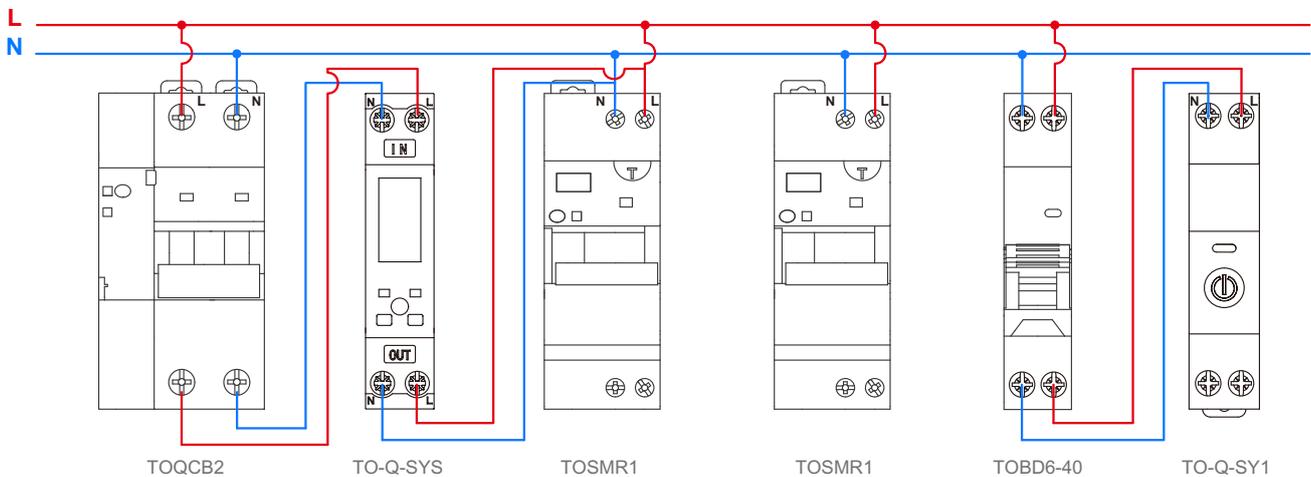


### LED Indicator

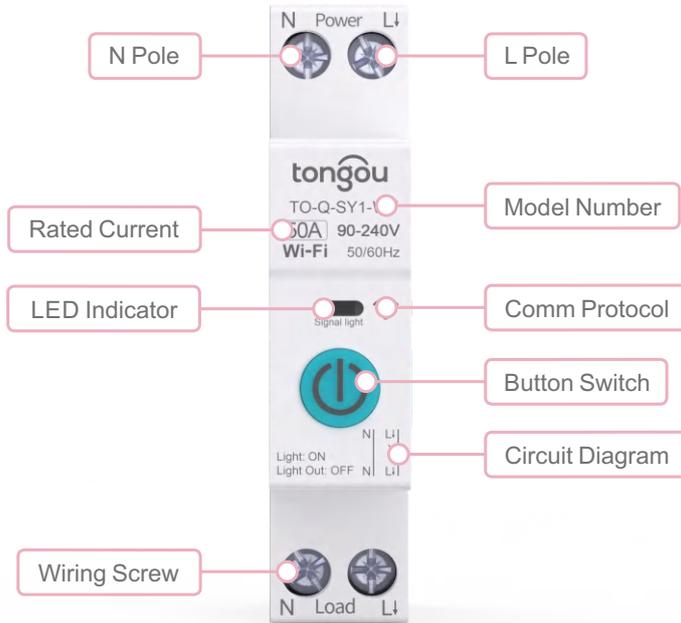
- The LED indicator flashing blue indicates the network pairing mode.
- The LED indicator solid blue shows the switch is on.
- The LED off indicates the switch is off.

PRODUCT MODEL	TO-Q-SY1-W	TO-Q-SY1-Z	TO-Q-SY1-L	TO-Q-SY1-M
Standards	IEC/EN 60947, IEC/EN 50557, EN 301 489, EN 300 328, EN IEC 61000			
Wiring Mode	DPN 18mm			
Poles Description	Disconnectable L Pole, Direct N Pole			
Operating Rated Voltage	Ue (V)	AC 90 - 240V		
Frequency	Hz	50/60Hz		
Rated Current	In (A)	6, 10, 16, 20, 25, 32, 40, 50, 63		
Operational Safety	Remote setting maintenance switch: which can be set via Apps or other ports to prevent remote accidental switch activation. It requires four consecutive presses to exit maintenance mode			
Communication Protocol	TO-Q-SY1-W	TCP/IP: Wi-Fi (2.412~2.484GHz) IEEE 802.11b/g/n		
	TO-Q-SY1-Z	Zigbee (2.400~2.483GHz) IEEE 802.15.4		
	TO-Q-SY1-L	LTE Cat.1: LTE-FDD: B1/B3/B5/B8 LTE-TDD: B34/38/39/40/41 (2535~2655MHz) LTE-FDD: B1/B3/B5/B7/B8/B20/B28A* LTE-TDD: B38/40/41 GSM/GPRS: GSM900/DCS1800		
	TO-Q-SY1-M	TCP/UDP: Matter		
Energy Consumption Measurement Accuracy	None			
Function Description	Multiple Timing, Remote Control, Voice Control			
Mounting Support	DIN Rail 35mm			

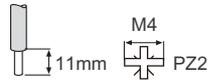
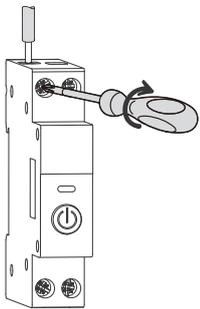
### Wiring Diagram



## I TO-Q-SY1 Metering Type

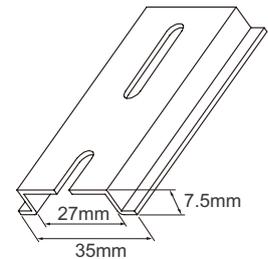
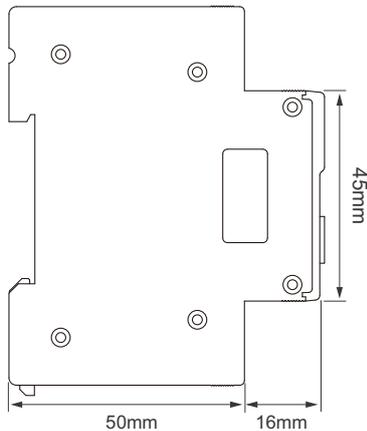
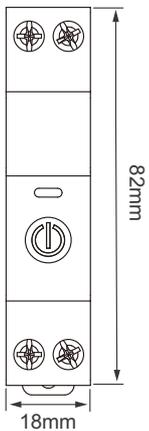


### Connection

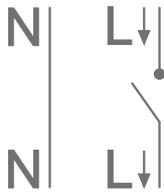


Rating	Tightening torque	Copper cables	
		Rigid	Flexible or ferrule
1 - 50A	1.8 N.m	1 - 16mm <sup>2</sup>	1 - 10mm <sup>2</sup>
63A	1.8 N.m	16mm <sup>2</sup>	/

### Dimensions (mm)



## I TO-Q-SY1 Metering Type



RDT+RELAY

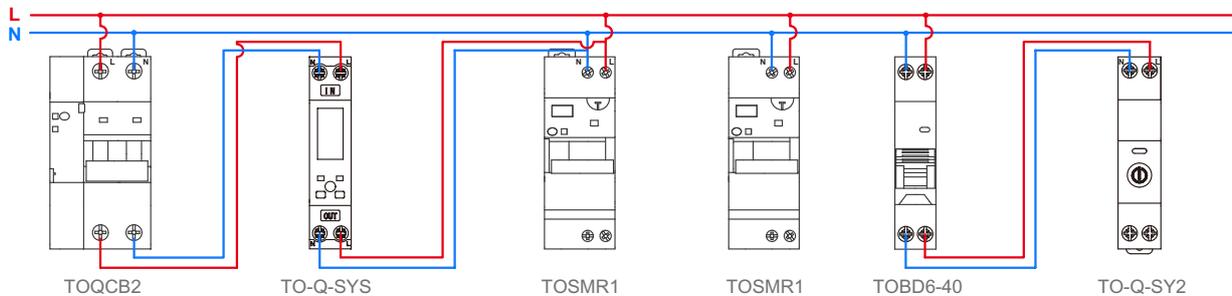


### LED Indicator

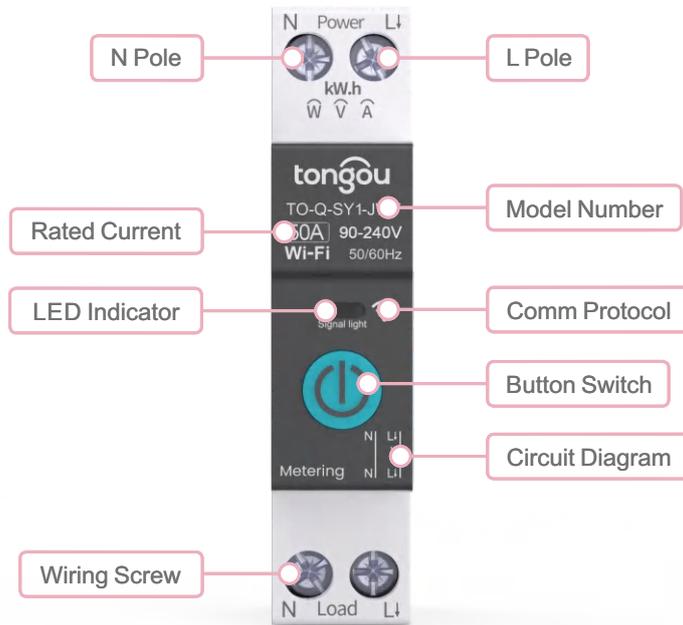
- The LED indicator flashing blue indicates the device is in pairing mode.
- The LED solid blue shows the network is connected.
- The LED off indicates no network connection.
- The button indicator solid red indicates the switch is on.
- The button indicator off indicates the switch is off.

PRODUCT MODEL	TO-Q-SY1-JW	TO-Q-SY1-JZ	TO-Q-SY1-JL	TO-Q-SY1-JM
Standards	IEC/EN 60947, IEC/EN 50557, EN 301 489, EN 300 328, EN IEC 61000			
Wiring Mode	DPN 18mm			
Poles Description	Disconnectable L Pole, Direct N Pole			
Operating Rated Voltage	Ue (V)	AC 90 - 240V		
Frequency	Hz	50/60Hz		
Rated Current	In (A)	6, 10, 16, 20, 25, 32, 40, 50, 63		
Operational Safety	Remote setting maintenance switch: which can be set via Apps or other ports to prevent remote accidental switch activation. It requires four consecutive presses to exit maintenance mode			
Communication Protocol	TO-Q-SY1-JW	TCP/IP: Wi-Fi (2.412~2.484GHz) IEEE 802.11b/g/n		
	TO-Q-SY1-JZ	Zigbee (2.400~2.483GHz) IEEE 802.15.4		
	TO-Q-SY1-JL	LTE Cat.1: LTE-FDD: B1/B3/B5/B8 LTE-TDD: B34/38/39/40/41 (2535~2655MHz) LTE-FDD: B1/B3/B5/B7/B8/B20/B28A* LTE-TDD: B38/40/41 GSM/GPRS: GSM900/DCS1800		
	TO-Q-SY1-JM	TCP/UDP: Matter		
Energy Consumption Measurement Accuracy	Class 2.0			
Monitoring Physical Data	Real-time Voltage, Real-time Current, Real-time Power (Forward), Power Consumption (Forward), Switch State, Device Operating Status			
Function Description	Multiple Timing, Remote Control, Voice Control			
Mounting Support	DIN Rail 35mm			

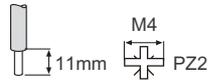
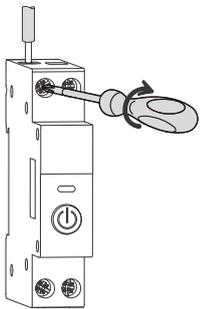
### Wiring Diagram



## I TO-Q-SY1 Metering Type

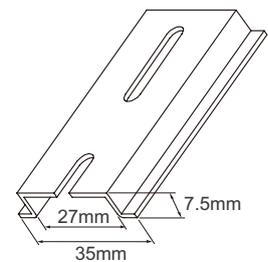
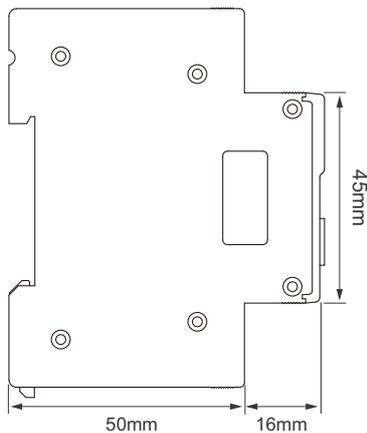
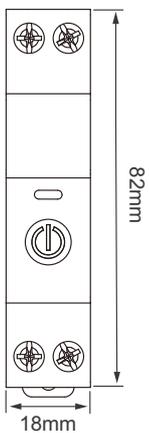


### Connection



Rating	Tightening torque	Copper cables	
		Rigid	Flexible or ferrule
1 - 50A	1.8 N.m		
63A	1.8 N.m	16mm <sup>2</sup>	/

### Dimensions (mm)



## TO-Q-SY2

### ⚡ Over-Current Protection

Threshold Setting: 1A - 63A  
 Status Setting: Off/Alarm/Trip  
 Electronic Component Response Time: 5s

### +⚡ Over-Voltage Protection

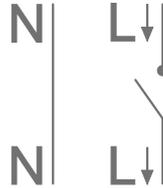
Threshold Setting: 245V - 295A  
 Status Setting: Off/Alarm/Trip  
 Electronic Component Response Time: 5s

### -⚡ Under-Voltage Protection

Threshold Setting: 145V - 220A  
 Status Setting: Off/Alarm/Trip  
 Electronic Component Response Time: 5s

### 📶 High Power Protection

Threshold Setting: 1KW - 26KW  
 Status Setting: Off/Alarm/Trip  
 Electronic Component Response Time: 5s



RDT+RELAY+UVP/OVP+ECM

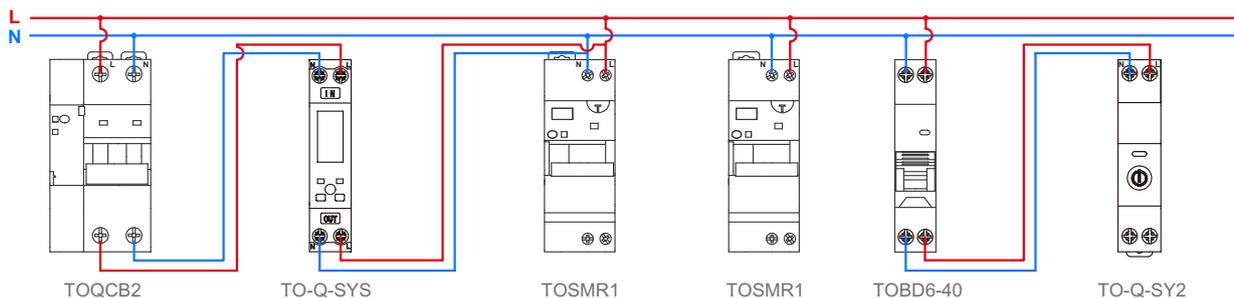


### LED Indicator

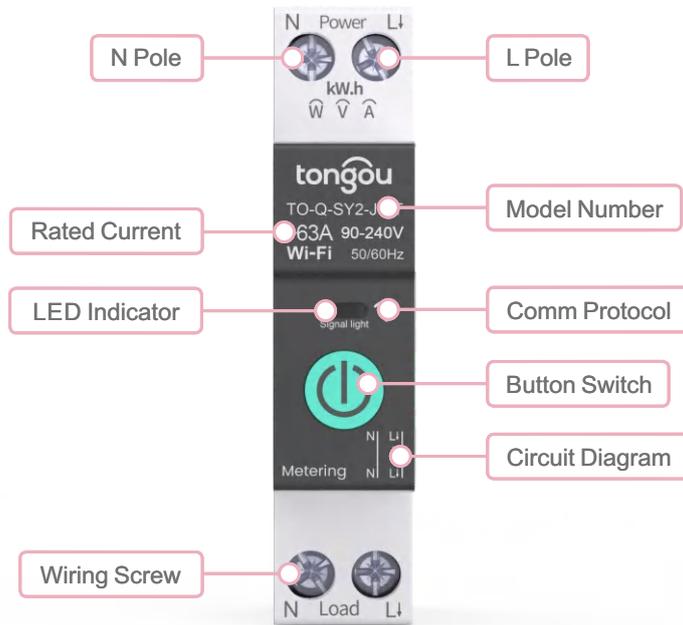
- 🔦: The LED indicator flashing blue indicates the device is in pairing mode.
- 🟦: The LED solid blue shows the network is connected.
- 🚫: The LED off indicates no network connection.
- 🔴: The button indicator solid red indicates the switch is on.
- ⏻: The button indicator off indicates the switch is off.

PRODUCT MODEL	TO-Q-SY2-JW	TO-Q-SY2-JZ	TO-Q-SY2-JL	TO-Q-SY2-JM
Standards	IEC/EN 60947, IEC/EN 50557, EN 301 489, EN 300 328, EN IEC 61000			
Wiring Mode	DPN 18mm			
Poles Description	Disconnectable L Pole, Direct N Pole			
Operating Rated Voltage Ue (V)	AC 90 - 240V			
Frequency Hz	50/60Hz			
Current Frame In (A)	63			
Operational Safety	Remote setting maintenance switch: which can be set via Apps or other ports to prevent remote accidental switch activation. It requires four consecutive presses to exit maintenance mode			
Communication Protocol	TO-Q-SY2-JW	TCP/IP: Wi-Fi (2.412~2.484GHz) IEEE 802.11b/g/n		
	TO-Q-SY2-JZ	Zigbee (2.400~2.483GHz) IEEE 802.15.4		
	TO-Q-SY2-JL	LTE Cat.1: LTE-FDD: B1/B3/B5/B8 LTE-TDD: B34/38/39/40/41 (2535~2655MHz) LTE-FDD: B1/B3/B5/B7/B8/B20/B28A* LTE-TDD: B38/40/41 GSM/GPRS: GSM900/DCS1800		
	TO-Q-SY2-JM	TCP/UDP: Matter		
Energy Consumption Measurement Accuracy	Class 2.0			
Monitoring Physical Data	Real-time Voltage, Real-time Current, Real-time Power (Forward), Power Consumption (Forward), Switch State, Device Operating Status			
Function Description	Multiple Timing, Over-voltage Protection, Under-voltage Protection, Over-current Protection, Over-Power Protection, Temperature protection, Remote Control, Voice Control			
Mounting Support	DIN Rail 35mm			

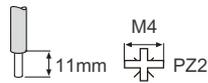
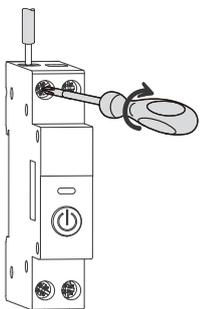
### Wiring Diagram



## I TO-Q-SY1 Metering Type



### Connection



Rating	Tightening torque	Copper cables	
		Rigid	Flexible or ferrule
1 - 50A	1.8 N.m		
63A	1.8 N.m	16mm <sup>2</sup>	/

### Dimensions (mm)

