

## **DT-9022**

## Industrial grade

#### Two RS485 Port Hub Manual

#### The main characteristics

- One main branch of RS485 RS232/ two port of RS485
- » RS485 data provides data collision protection control DCPC function
- The baud rate adaptive
- LED indicates the power and signal state
- Every port provides large capacity 128 node
- The main RS232 port protection: 15KV ESD
- Primary and secondary RS485 port with lightning protection, surge, every line of 600W
- Bidirectional conversion between the main and branch port
- Branching rates up to 250Kbps
- » High anti-interference design
- Wide voltage input design: DC 9-36V, DC 9-60V can be customized

#### 一、Introduction

DT-9022 is a universal industrial two port RS485 adaptive relay hub, with a main RS232/RS485 port, the RS485 hub is designed specifically for the needs of RS485 transmission distance and large capacity serial

communication network expansion. With a number of independent innovation technology of DTTEC, including built-in data collision protection control etc.

The RS485 hub of the working principle of DT-9022: data sent through the main port to send to each branch (CH A, CH B). Data received in the branch and sent to the main port, then the other branch will not receive the signal.

The main physical interface converter and a data line with complete all copper material, can ensure the communication stability, special circuit design can be outside interference shielding effective.

## $\equiv$ Specifications

#### 1, communication:

Master RS232 signal: TX RX GND (DTR DSR CTS DCD can be customized) --DB9 hole

Master / sub RS485 signal: the signals of group T/R+ (A) T/R- (B) CH A CH B-- copper with screw terminal

**Support:** support each number of terminals can be connected 128 RS485 nodes; the theoretical value, two groups of 256 nodes

**Transmission distance:** the theoretical value of 1.5km, 9600k/s test

RS485 data collision protection control: DCPC

**Serial protection**: RS232 end 15KV ESD; the RS485 end Transient Voltage Suppressors of TVS, each 600W line protection

Working temperature: -25-65 degrees Storage temperature: -20-75 degrees Humidity: 5-95%RH

Power supply: 9-36 VDC 350Ma

The over-current protection: when two signals when short, may play a protective role, but not the long short

Power consumption: 180Ma@9V

2, mechanical properties

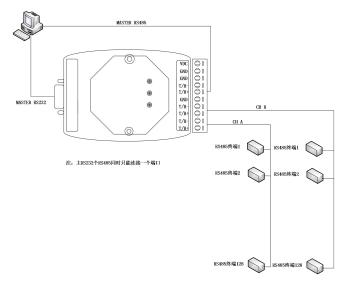
**Dimensions (W \* D \* H):** 117\*72\*26

Shell: ABS + PC Weight: 250g

**Certification**: CE FCC **Warranty period**: 1 years

## $\Xi$ . The network connection applications

# 1. RS485 hub of star type network application



The matters needing attention:

1, connection multiplexing RS485 terminal, the best do mean load sharing; secondly, RS485 adopts the direct way to connect, namely converter T/R+ terminal T/R+, `the terminal of the T/R- converter T/R-..

## 四、Data interface sheet

#### 1、MASTER RS232

DB9	Definition
1	DCD
2	RXD
3	TXD
4	DTR
5	SG
6	DSR
7	RTS
8	CTS
9	RI

### 2. With screw terminals defined

Terminal	index	Definition	
1	T/R+	channel A	
2	T/R-	channel B	
3	T/R+	channel A	
4	T/R-	channel B	
5	GND	Gnd	
6	T/R+	Master RS485 A	
7	T/R-	Master RS485 B	
8	GND	Master RS485GND	
9	GND	POWER GND	
10	VDC	POWER INPUT	









# 五、Product parts list

INDEX	NAME	unit	Number
1	RS485hub	pic	1
	DT-9022		
2	Serial	pic	1
	cable		
3	DC adapter	pic	1 (selection)
	9V		
4	Certificate	pic	1
	of		
	conformity		
5	MANNEL	PIC	1