

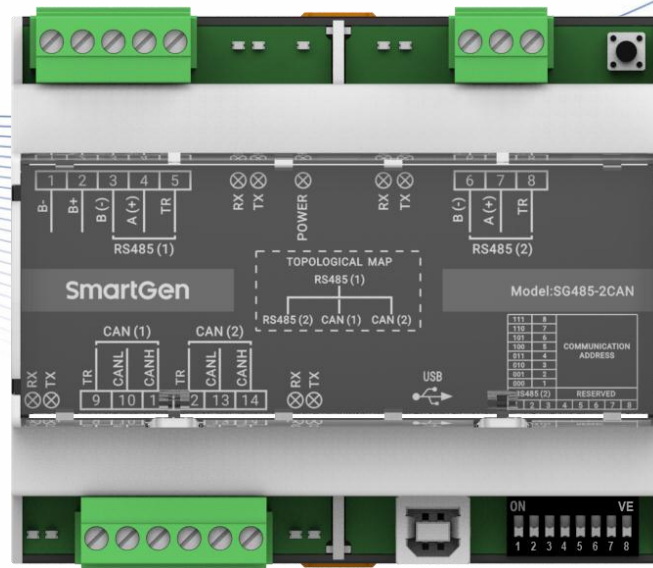
SmartGen

MAKING CONTROL SMARTER

SG485-2CAN

COMMUNICATION INTERFACE CONVERSION MODULE

USER MANUAL



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SmartGen众智 Chinese trademark

SmartGen English trademark

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Table 1 Software Version

Date	Version	Note
2021-08-18	1.0	Original release.
2021-11-06	1.1	Modify some descriptions.
2021-01-24	1.2	Modify the error in Fig.2.

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1 OVERVIEW

SG485-2CAN is a communication interface conversion module, which has 4 interfaces, namely RS485 host interface, RS485 slave interface and two CANBUS interfaces. It is used to convert 1# RS485 interface to 2# CANBUS interfaces and 1# RS485 interface by DIP switch to set address, providing convenience for customers to monitor and collect data.

2 PERFORMANCE AND CHARACTERISTICS

Its main characteristics are as follows:

- With 32-bit ARM SCM, high hardware integration, improved reliability;
- 35mm guide rail installation method;
- Modular design and pluggable connection terminals; compact structure with easy mounting.

3 SPECIFICATION

Table 2 Performance Parameters

Items	Contents
Working Voltage	DC8V~DC35V
RS485 Interface	Baud rate: 9600bps Stop bit: 2-bit Parity bit: None
CANBUS Interface	250kbps
Case Dimension	107.6mmx93.0mmx60.7mm (LxWxH)
Working Temperature	(-40~+70)°C
Working Humidity	(20~93)%RH
Storage Temperature	(-40~+80)°C
Protection Level	IP20
Weight	0.2kg

4 WIRING

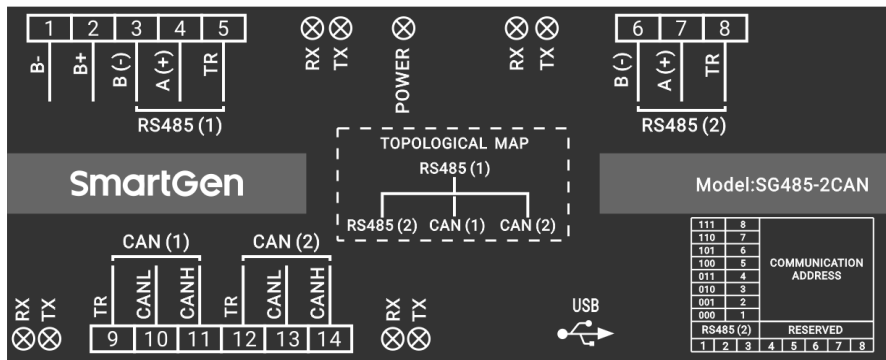


Fig.1 Mask Diagram

Table 3 Indicators Description

No.	Indicator	Description
1.	POWER	Power indicator, always on when powered on.
2.	TX	RS485/CANBUS interface TX indicator, it flashes 100ms when sending data.
3.	RX	RS485/CANBUS interface RX indicator, it flashes 100ms when receiving data.

Table 4 Wiring Terminals Description

No.	Function	Cable Size	Remark
1.	B-	1.0mm ²	DC power negative.
2.	B+	1.0mm ²	DC power positive.
3.	RS485(1)	0.5mm ²	RS485 host interface communicates with controller, TR can be short connected with A(+), which is equivalent to connecting 120Ω matching resistance between A(+) and B(-).
B(-)			
A(+)			
4.	RS485(2)	0.5mm ²	RS485 slave interface communicates with PC monitoring interface, TR can be short connected with A(+), which is equivalent to connecting 120Ω matching resistance between A(+) and B(-).
B(-)			
A(+)			
5.	TR		
6.	CAN(1)	0.5mm ²	CANBUS interface, TR can be short connected with CANH, which is equivalent to connecting 120Ω matching resistance between CANL and CANH.
B(-)			
A(+)			
7.	CAN(2)	0.5mm ²	CANBUS interface, TR can be short connected with CANH, which is equivalent to connecting 120Ω matching resistance between CANL and CANH.
B(-)			
A(+)			
8.	TR		
9.	CAN(1)	0.5mm ²	CANBUS interface, TR can be short connected with CANH, which is equivalent to connecting 120Ω matching resistance between CANL and CANH.
B(-)			
A(+)			
10.	CAN(2)	0.5mm ²	CANBUS interface, TR can be short connected with CANH, which is equivalent to connecting 120Ω matching resistance between CANL and CANH.
B(-)			
A(+)			
11.	TR		
12.	CAN(1)	0.5mm ²	CANBUS interface, TR can be short connected with CANH, which is equivalent to connecting 120Ω matching resistance between CANL and CANH.
B(-)			
A(+)			
13.	CAN(2)	0.5mm ²	CANBUS interface, TR can be short connected with CANH, which is equivalent to connecting 120Ω matching resistance between CANL and CANH.
B(-)			
A(+)			
14.	TR		
/	USB	Software download and upgrade interface	/

Table 5 Communication Address Setting

Communication Address Setting								
Address	RS485(2)			Reserved				
DIP Switch No.	1	2	3	4	5	6	7	8
Corresponding relation between dial switch combination and communication address	000: 1			Keep the DIP address, it has no effect on communication no matter how it is set.				
	001: 2							
	010: 3							
	011: 4							
	100: 5							
	101: 6							
	110: 7							
	111: 8							

5 ELECTRICAL CONNECTION DIAGRAM

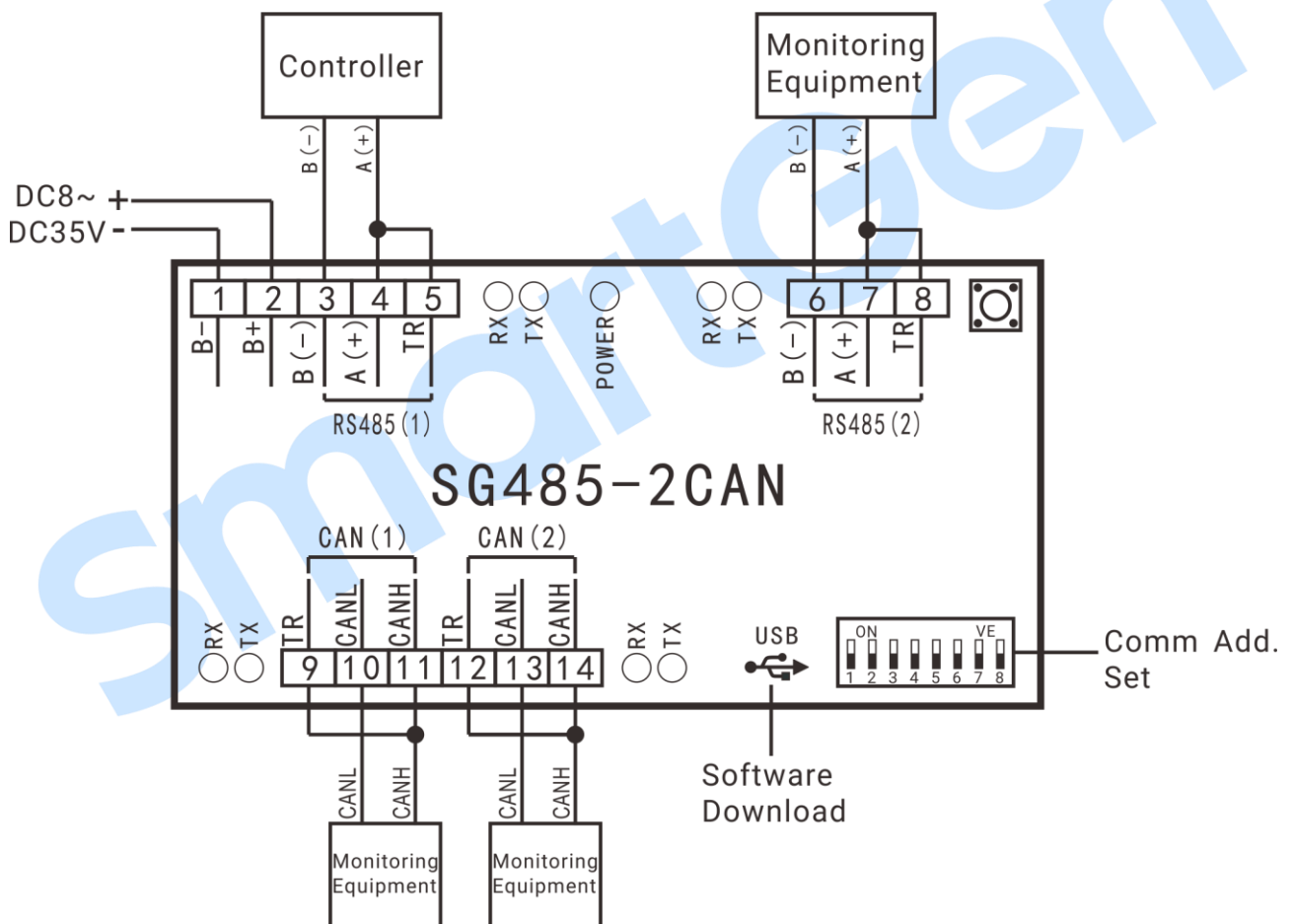


Fig.2 Electrical Connection Diagram

6 OVERALL DIMENSION AND INSTALLATION

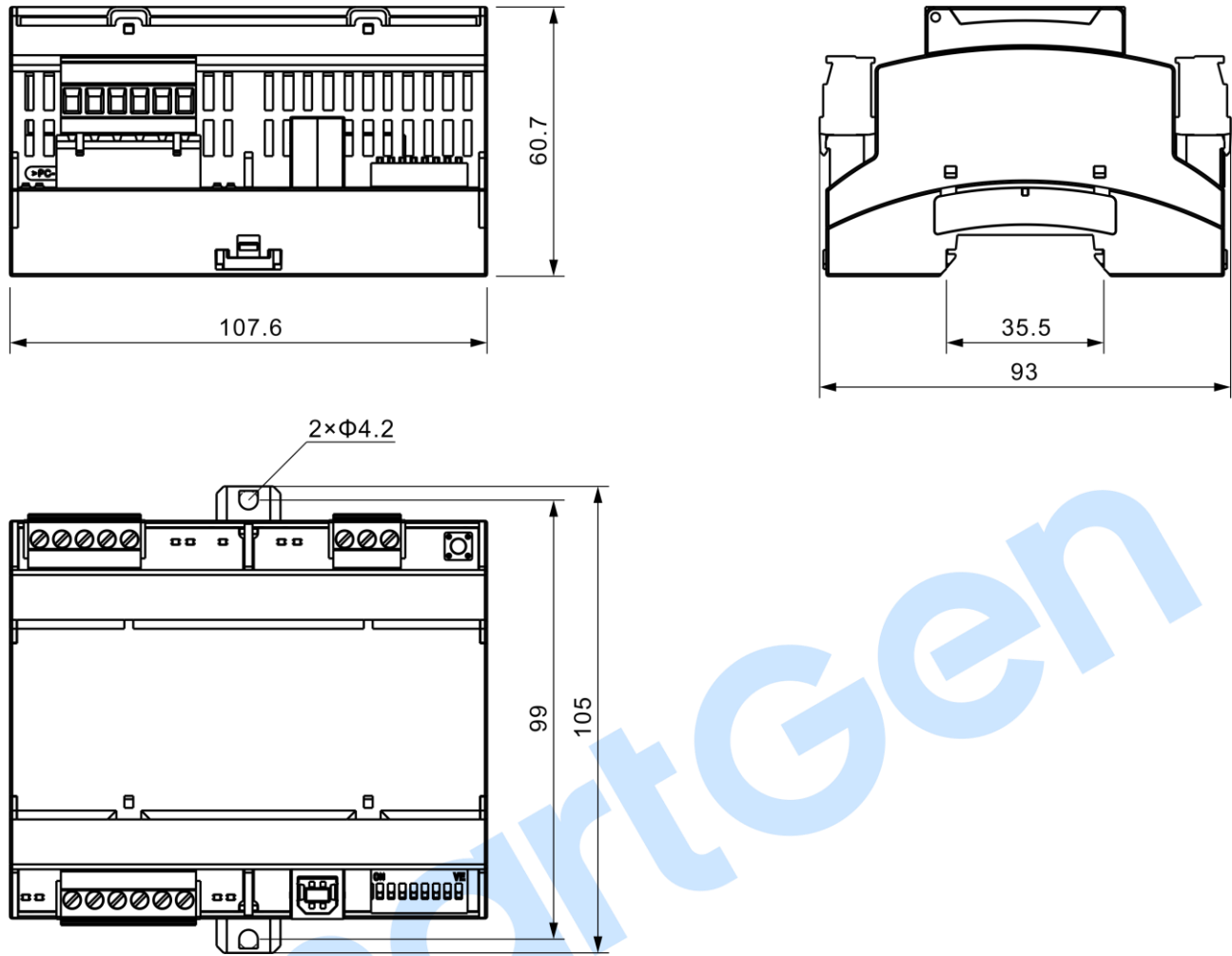


Fig.3 Overall Dimension and Installation (Unit: mm)