

NCS-BP105 Fieldbus Power Conditioner
NCS-BP105 Fieldbus Power Terminator

User manual



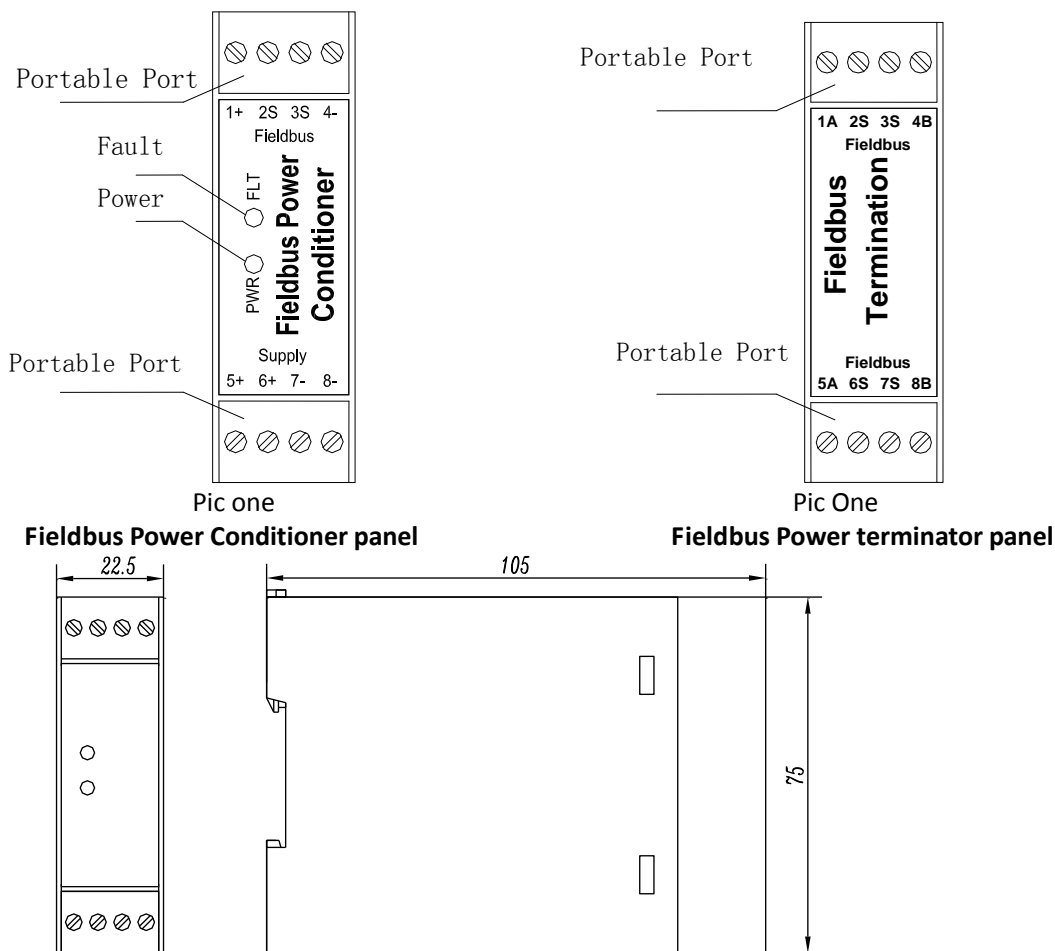
Main features

1. According to FF-831 Fieldbus Power Supply Test Specification
2. Over current protection and indication
3. Build in terminator, optional
4. Support redundant
5. Active impedance control method
6. Follow-up voltage output mode, meets the requirements of long-distance power supply
7. Strong resistance to electromagnetic interference, protects fieldbus devices.

Overview

NCS-BP105 Fieldbus Power Conditioner(Hereinafter refers as fieldbus power supply)applies to Foundation Fieldbus and Profibus PA control system and provides power to fieldbus instrument. Fieldbus Power conditioner adopts an active impedance control circuit , Prevents the conventional power supply from absorbing the Fieldbus signal. Otherwise, interfering with the operation of the Fieldbus. Working with terminator together, it provides perfect bus signals. There are two LED for power indication and fault indication. Fieldbus Power Conditioner can support redundancy when two Power Conditioners work in redundancy mode in order to enhancing the reliability of the system

Panel and Dimension



Pic two

Appearance and Dimension

Main technical specification

4.1 Basic Parameters

Output voltage	15V~34V (requires isolation between input power supply and the earth)
output voltage drop	2~6V, related to the load size
Rated output current	330Ma
Overcurrent protection	>360mA
operating temperature	-30 ~ 70 °C
Humidity range	0 ~ 85% RH
Vibration	Conforms to the SAMA PMC 31.1 standard
EMC	Conforms to the IEC61000-4 standard
IP grade	IP20

4.2 physical properties

Housing material	engineering plastics
Housing dimension	75.5mmX22.5mmX87.2mm
Weight	100g
Installation	DIN rail

5, Wiring Method

5. 1 Fieldbus power signal description

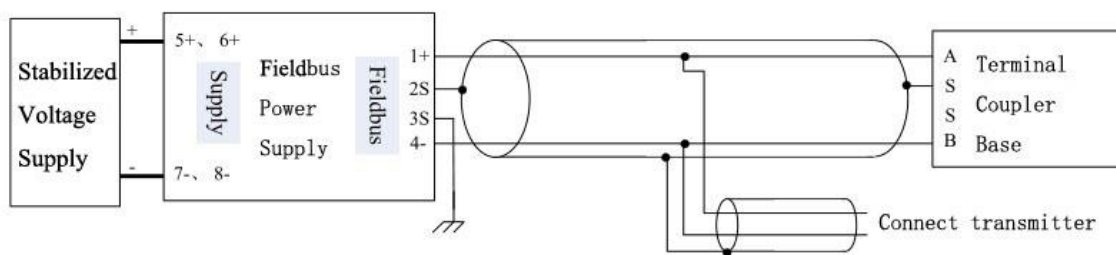
5+、 6+	external power input positive, 5+、 6+ internal connection
7-、 8-	external power input negative, 7-、 8- internal connection
1+	fieldbus positive output

4-	fieldbus positive output
2S、3S	earth circuit, 2S、3S internal connection

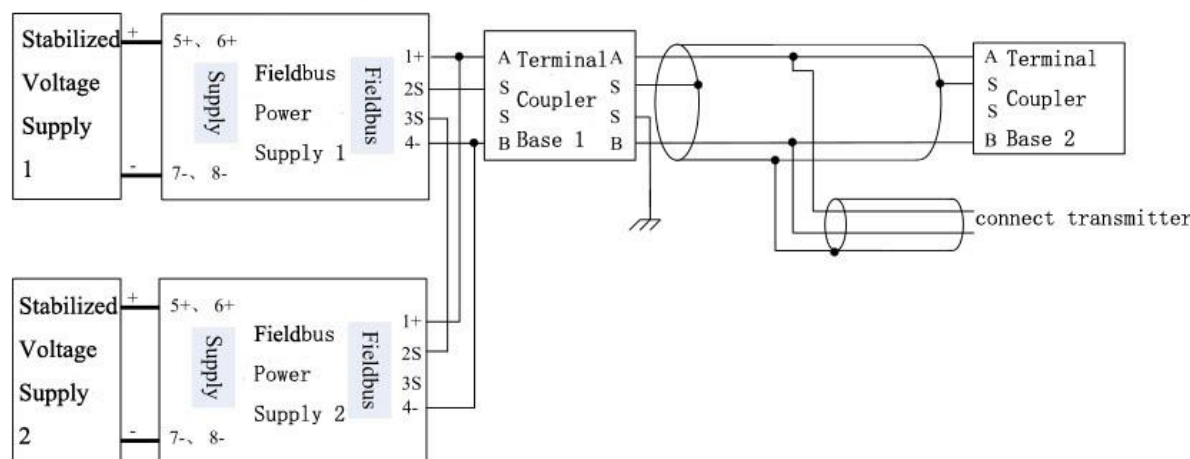
2. fieldbus terminator signal description

A	connect to one side of the fieldbus line, nonpolarity
B	connect to the other side of the fieldbus line, nonpolarity
S	connect to the shielded wire

3.wiring diagram



Pic 3 Fieldbus Power Supply Non Redundant Connection



Pic4 Fieldbus power redundancy connection (note: Fieldbus power built-in terminator is invalid)

caution 1:

NCS-BP105 Fieldbus Power Conditioner adopts non-isolation method between input and output, in order to guarantee the reliability of long distance communication, For ordinary regulated power supply, it can meet the requirements as long as the output port doesn't connect to the ground. In addition, User has to ensure one dedicated regulated power supply for the fieldbus power, try to avoid the dedicated power supplies to other devices. Meanwhile, different segment fieldbus power supply should not be supplied by the same regulated power supply. if regulated power supply has multiple channel isolated output. Then, the unused output power supply can be used for other devices. Can also be investigated is not in the same network segment of the bus power supply. If user can't fulfill above conditions, please choose isolation type fieldbus power supply products.

caution 2:

When adopting redundancy mode connection, user should disconnect the J4 jumper in the fieldbus power supply. No special requirements, we tacitly approve J4 closed when delivery. If user wants to double power supply redundancy operates, the statement should be announced before ordering.

Diagnosis and Maintenance

Phenomenon	Solution
Power indicator light is off	Check the power supply polarity Check the power supply voltage
Fault indicator light is on	Check if the output overloads Check if the output is short circuit

If the light is completely normal, but the fieldbus still can't work, please refer to the wiring method and cautions.