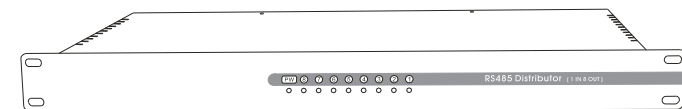


Bernee®

..... > RS485 Distributor
BN-485HUB-8

User Manual



Functions

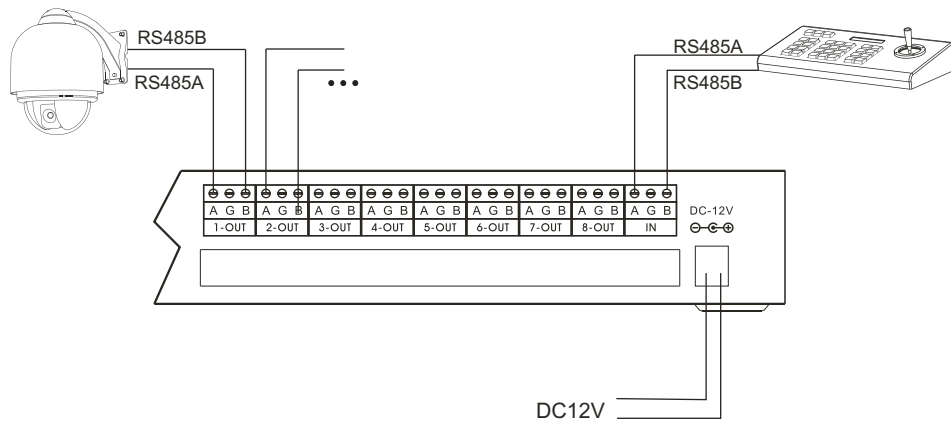
1. Signal distributing: all ports are isolated, interference signal does not affect other channels, suitable for star-type signal transmission.
2. Signal amplifying: extend 1200m on effective distance of transmission
3. Single direction transmission: single 485 signal, out port only receives; in port only sends
4. RS485 port supports anti-static, anti-lightning strike
5. Each port can connect 128 points, totally connect 4x128 equipment ends
6. RS485 communication requires twisted-pair, otherwise accompanying distance shortening if use parallel wires

Installation

Step1: distributor out port ("OUT") 485A, 485B connect to the matched ports of control devices (DVR, matrix, keyboard controller)

Step2: distributor in port ("IN") 485A, 485B connect to the matched ports of control devices (speed dome, decoder, DVR, etc)

Picture below:



RS485 bus-line

RS is the abbreviation of "recommended standard", 485 is label number. RS485 cascading line is widely used for scores of even hundreds of meters conditions. RS485 adopts equivalent sending & differential receiving, so it can suppress common-mode interference. In addition to high sensitivity, it can detect so low voltage as 200mV that signal can recover beyond thousand meters. RS485 often applies for multi-point connection saving many signal lines. RS485 can be cascaded, cascading max.128 drivers & receivers, but basically depending on driver & receiver chip used, besides driving ability of bus-line is affected by the weakest unit. In practical, we can use RS485 distributor to do better. RS485 bus standard requires all devices connecting each other by chrysanthemum-like connection, with 120Ω terminal resistance at both ends and less than 7meters parallel line distance

RS485 distributor application

Customers usually use star-type connection and thus resistance must be at two farthest devices. Due to such connection is not in accordance with RS485 standard requirement, signal is quite possible to appear reflection, anti-interference reduction and leads to reduction of control signal stability, which shows as: dome out of control, control discontinuous or stop failure. By such conditions, we'd better adopt RS485 distributor which converts star-type connection into RS485 standard connection. As a result, communication reliability is enhanced.

