

AVARAGE-POWER AMPLIFIER & BIDIRECTIONAL INTERFACE CONVERTOR

C ← BUS

PCB 332 C2 Eng

- Converts C-Bus to RS232
- Converts RS232 to C-Bus
- Amplifies C-Bus signal
- Bus speed up to 9,600 baud
- Power supply 230 V ~ ; DIN rail mounting



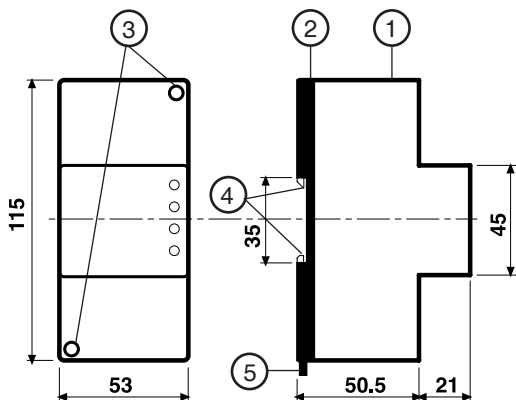
1. APPLICATION

- In C-Bus transmission networks for :
- connecting devices with a C-Bus port to a computer
 - connecting devices with RS232 port to a C-Bus data transmission network
 - extending C-Bus line by a further 5,000 meters

2. INSTALLATION

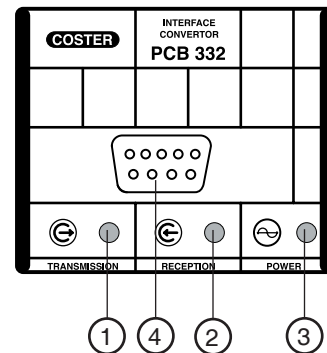
The device must be sited in a dry space which meets the relevant ambiantal conditions shown under 5.TECHNICAL DATA. If sited in a space classified as "Dangerous" it must be installed in a cabinet for electrical devices constructed according to the regulations for the class of danger involved. It can be installed on a DIN rail or in a DIN modular case.

3. OVERALL DIMENSIONS



- 1 - Protective cover for electronic components
- 2 - Base with transformer, relay & terminal blocks
- 3 - Screws for fixing cover- base
- 4 - DIN rail securing elements
- 5 - DIN rail release lever

4. FACIA

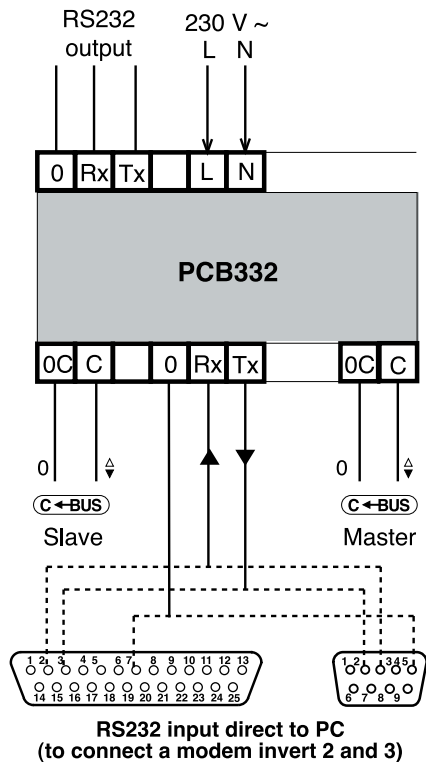


- 1 - Transmission data LED
- 2 - Reception data LED
- 3 - Power LED
- 4 - RS232 socket for computer

5. TECHNICAL DATA

Power supply	230 V ~ ± 10%	•Ambient temperature:	
Frequency	50 ... 60 Hz	operation	0 ... 45 °C
Consumption	2 VA	storage	- 25 ... + 60 °C
Protection	IP40	Ambient humidity	Class F DIN 40040
Radio disturbances	VDE0875/0871	•Data transmission :	
Vibration test	with 2g (DIN 40 046)	Transmission speed (baud rate)	up to 9600 baud
Construction standards	Italian Electrotech. Commitee (CEI)	Serial ports RS232	2
Case	DIN 3E module	Parallel ports C-Bus	2
Installation	DIN 35 rail	Weight	0.27 kg
•Materials:			
base	NYLON		
cover	ABS		

6. WIRING DIAGRAM



L – Line 230 V~
 N – Neutral
 C-Bus Slave – input C-Bus line (from modem)
 C-Bus Master – output C-Bus line (to electronic devices)
 RS232 Input – RS232 input line (from computer)
 RS232 Output – RS232 output line (to electronic devices)

7. WIRING

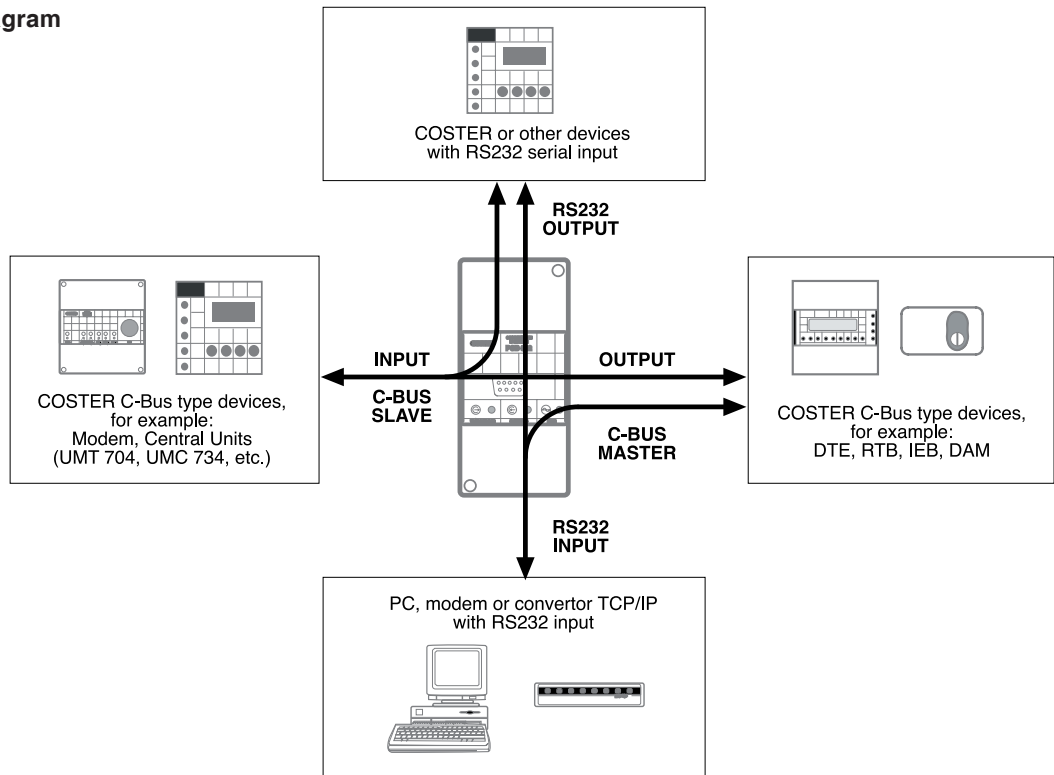
Proceed as follows :

- Separate base and cover by loosening fixing screws (3.3)
- Mount base on DIN rail and check that the securing elements (3.4) hold it firmly in place.
- Carry out the wiring according to diagram and in observance of the regulations in force, using cables of :
 - 1.5 mm² for power
 - 1...1.5 mm² for C-Bus.
 - 0.75 mm² (approximately) for RS232 with maximum length of 15 meters.
- Switch on power (230 V ~) and check voltage across terminals L and N
- Switch off power, replace cover on base and secure it with the two screws supplied (3.3).

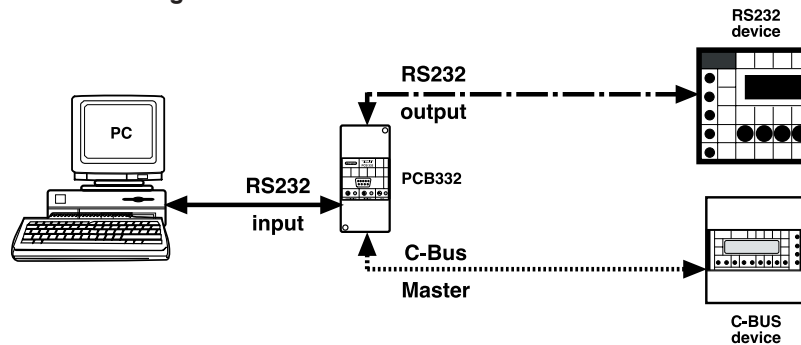
You are advised not to insert more than two cables in a single terminal of PCB 332 and if necessary to use external junction boxes.

8. OPERATION

8.1 Schematic diagram



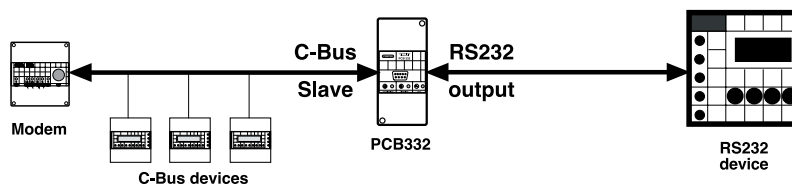
8.2 Example of use as C-Bus to RS232 signal convertor



Permits connection between :

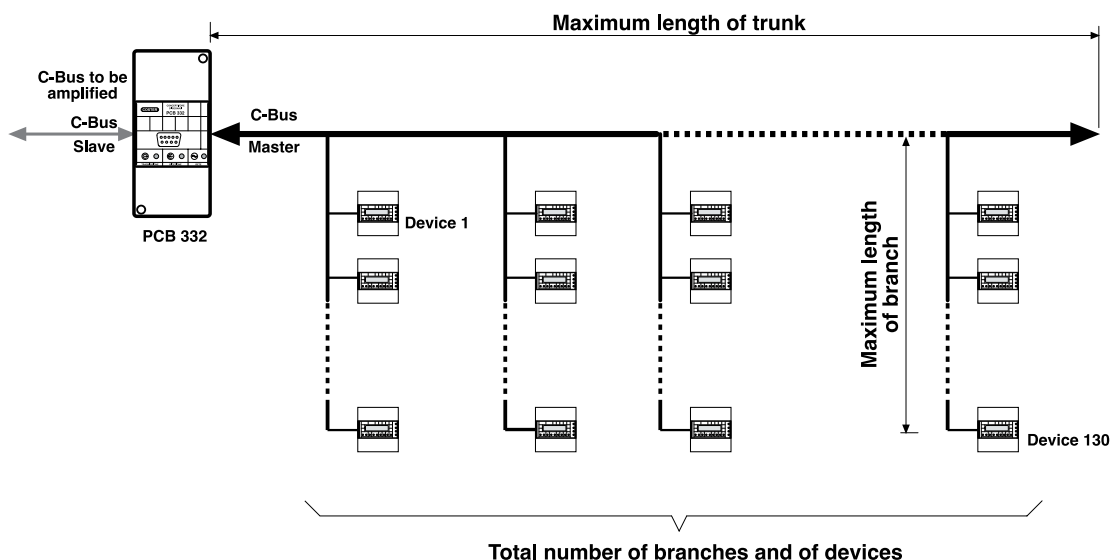
- a computer or non-Coster modem (terminals "RS232 input" or RS232 socket on PCB 332 facia) ;
- devices of C-Bus type (terminals "C-Bus Master")
- RS232 devices (terminals "RS232 output").

8.3 Example of use as RS232 to C-Bus signal convertor



Permits inserting a device or a series of devices with RS232 interface (terminals "RS232 output") in a C-Bus network (terminals "C-Bus Slave").

8.4 C-Bus signal amplifier : wiring tree



THE C-BUS CABLES MUST BE LAID IN DEDICATED TUBING.

TABLE VALID FOR 1200 BAUD

Max TRUNK cross section cable	Max BRANCH cross section	Max BRANCHES	Max UNITS per BRANCH	max TOTAL UNITS
5,500m 1.5 mm ²	250m 1 mm ²	6	25	150

TABLE VALID FOR 2400 BAUD

Max TRUNK cross section cable	Max BRANCH cross section	Max BRANCHES	Max UNITS per BRANCH	Max TOTAL UNITS
3,500m 1.5 mm ²	250m 1 mm ²	6	25	150

TABLE VALID FOR 4800 BAUD

Max TRUNK cross section cable	Max BRANCH cross section	Max BRANCHES	Max UNITS per BRANCH	Max TOTAL UNITS
6,500m 1.5 mm ²	250m 1 mm ²	5	25	125

TABLE VALID FOR 9600 BAUD

max TRONCO cross section cable	Max BRANCH cross section	Max BRANCHES	Max UNITS per BRANCH	Max TOTAL UNITS
3,000m 1.5 mm ²	250m 1 mm ²	5	25	125

WARNING: If the trunk is too short you can lengthen the branches or insert more of them.
If the branches are fewer or shorter you can lengthen the trunk.

Essentially, the important figure is the total of the lengths of all the cables of the trunk and the branches

Amendment to data sheet

Date	Revision No.	Page	Section	Amendment description	Versione Firmware	Versione Software
05.02.10 AM	01	4	8.4	Aggiornata la velocità di trasmissione C-Bus		



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