1. GENERAL FEATURES:

Applications: Interface communication buffer between Mordomus modules;

Installation: DIN Rail Distribution Board.

2. GENERAL SPECIFICATIONS:

Mains Voltage: 12VDC;

Consumption: 28mA @ 12VDC;

Storage Temperature: -10ºC to 60ºC;

Operating Temperature: 10ºC to 50ºC;

Maximum humidity: 80% without condensation;

Physical Specifications:

Dimensions: 157mm X 90mm X 70mm, DIN rail mounting (9 modules);

Box Plastic, self-extinguishing UL-94 V0;

Level of Protection: IP20, for indoor use;

3. COMPATIBILITY:

PCCWd Compatibility: All Versions.

Mordomus Software Compatibility: Not Applicable.

4. SECURITY:

Before making any connections, please read these instructions.

5. CONNECTIONS:

The MD Bus should not have branches or interruptions;

Thickness of Conductors:

    Circuit Bus:

        CAT6 Cable F / UTP shielded, twisted;

    Power Circuit:

        CAT6 Cable F / UTP shielded, twisted.

Table of Connections:

Number	Function
1	A Bus Outputs PCCWd
2	B Bus Outputs PCCWd
3	A Bus Inputs PCCWd
4	B Bus Inputs PCCWd
5	GND
6	+12VDC
24	GND
25	+12VDC
26	GND
27	+12VDC
28	B Bus Outputs Channel 1
29	A Bus Outputs Channel 1
30	B Bus Inputs Channel 1
31	A Bus Inputs Channel 1
32	GND
33	+12VDC
35	B Bus Outputs Channel 2
36	A Bus Outputs Channel 2
37	B Bus Inputs Channel 2
38	A Bus Inputs Channel 2
39	GND
40	+12VDC
42	B Bus Outputs Channel 3
43	A Bus Outputs Channel 3
44	B Bus Inputs Channel 3
45	A Bus Inputs Channel 3
46	GND
47	+12VDC
49	B Bus Outputs Channel 4
50	A Bus Outputs Channel 4
51	B Bus Inputs Channel 4
52	A Bus Inputs Channel 4
53	GND
54	+12VDC

Fig 1
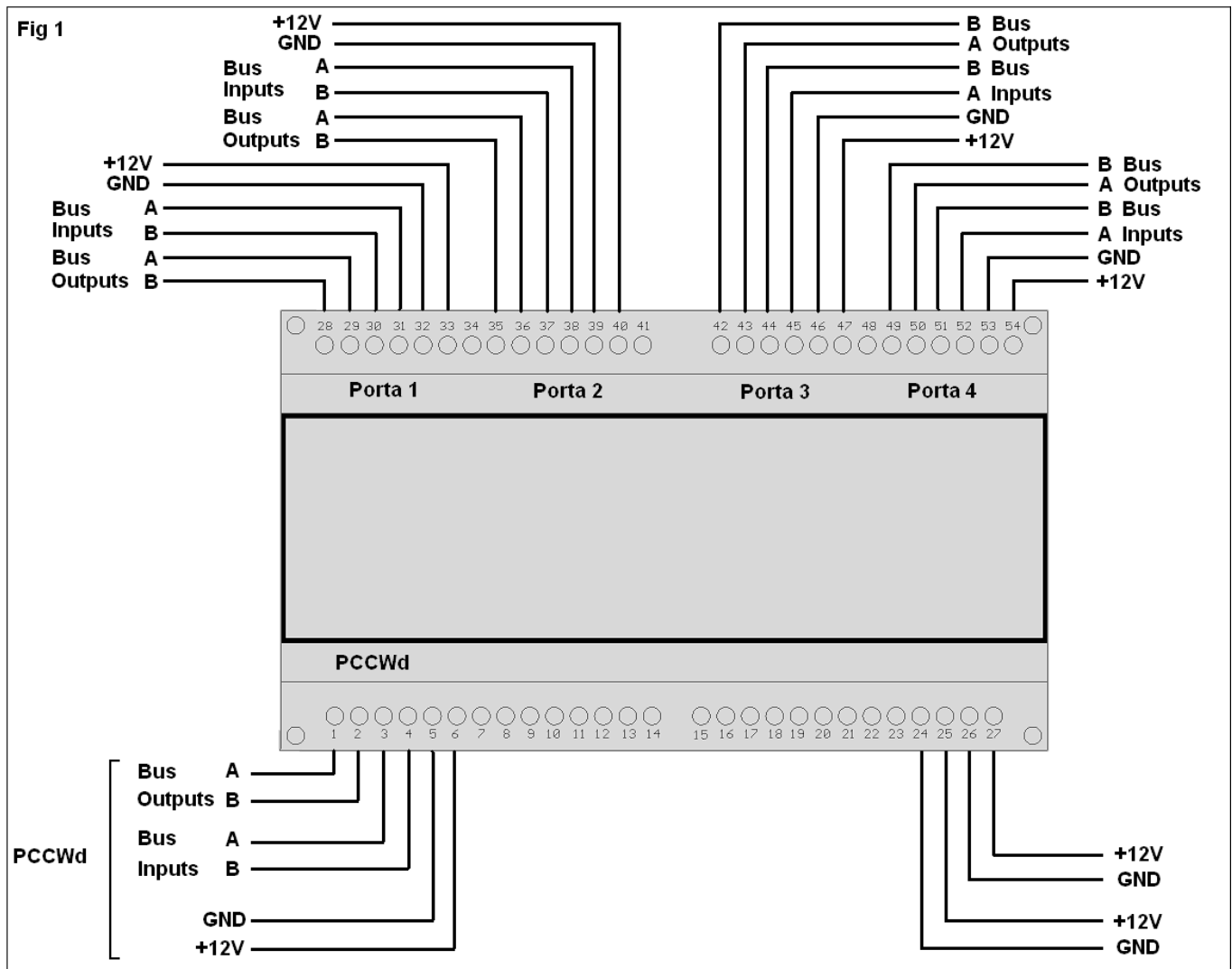
Connect the 12VDC power:

It is recommend the use of Mean-Well power supplies, DR60-12 and DR30-12.

To feed the BBF4Wd is sufficient to connect the power supply to any of the terminals **GND** and **+12VDC** respectively. The remaining terminals are intended to facilitate the derivation of power supply.

Connect the Bus:

To connect the BUS, must be used a pair-Interlace CAT6 cable. For example: Green for A and Green/White for B. The shield should be connected to GND.

6. FUNCTIONING:

The BBF4Wd includes a communication bus channel Mordomus intended for connection of a bus PCCWd and 4 Mordomus communication Channels designed to link modules, inputs, outputs, or additional buffers.

Each communication Channel in turn consists of a point BUS Mordomus Inputs and Outputs Bus Mordomus.

To ensure the highest possible data transfer speed, PCCWd should only be attached at the Channel intended for it. This rule does not apply when the BBF4Wd is sharing a METEO with several Mordomus facilities.

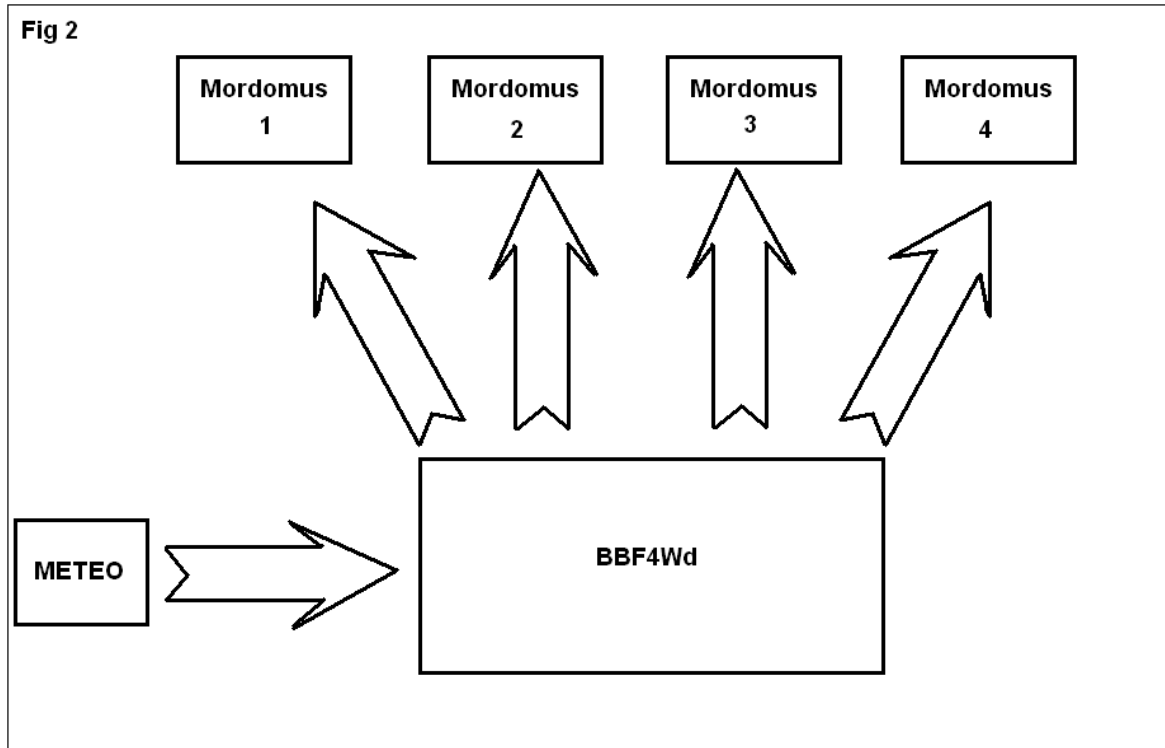There is no communication between any of the Channels 1 to 4.

Fig 2 illustrates the BBF4Wd connection to share a weather station (Meteo) with various Mordomus systems. In this case the METEO is connected to the Channel intended to PCCWd and the Mordomus systems on Channels 1 through 4. It is also possible to repeat this link with BBF4Wd modules to achieve a greater number of Mordomus systems with a single METEO.
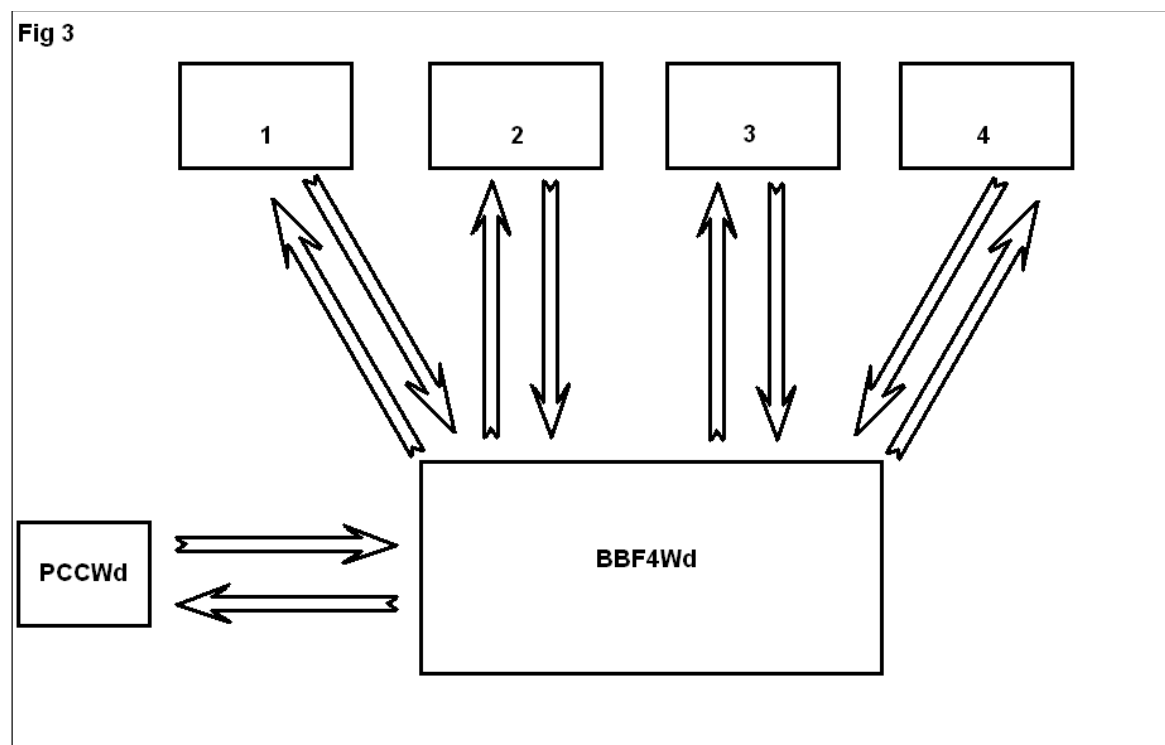

Fig 3 illustrates the BBF4Wd link for interconnecting multiple frames or Mordomus modules with a control module (PCCWd).
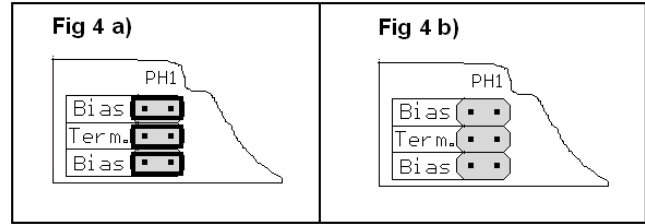

Leds code:

Bus OUTPUTS :

Red LED (D2) indicates the transmission PCCWd Bus data for the 4 channels bus.

Red LED (D3) indicates transmission data of the 4 channels to the bus PCCWd.

Bus INPUTS:

Green LED (D4) indicates BUS data transmission PCCWd for the 4 channels bus.

Green LED (D5) indicates transmission data of the 4 channels to the bus PCCWd .

In case the module is the last in bus, the jumpers should be placed according to Fig 4a) to close the chain BUS. In the case of very large bus bars you may need only put the jumper **Term**. In other situations it should remain as in Fig 4b).