

**COMPACT
FLAME CONTROLLER
POWER SUPPLY AND
CONVERTER BOX
5010 / 5012
FOR CFC 3000
TECHNICAL DESCRIPTION**

EDITION: TB 5010_12-JMM-REV.01/2005

Conveterbox incl. Power Supply

For the connection at CFC 3000

- Wide range power supply input 100 – 240 V AC
- DC power supply connection 24 V
- Current output depending on flame flicker frequency
- Possible bus system of long range reception of up to 16 CFC 3000 Signals (5012)
- Flame relay load max. 250V AC / 1A
- DIN rail or panel mounting
- Space saving construction

Application

The converter boxes 5010 and 5012 are specially designed and adapted for the connection of the compact flame controller type CFC 3000. This converter boxes will expand the variety of functions of the CFC series and to use them in the maximum range.

At first they can be used as a power supply which is specially designed for the compact flame controllers. With its wide range input of 100 – 240 V AC it is very easy to use. For higher loads on the flame relay the converter boxes are including a secondary relay which is controlled by the internal flame relay of the CFC but which is designed for up to 250V AC and 1A.

The main application of the 5010 / 5012 is the

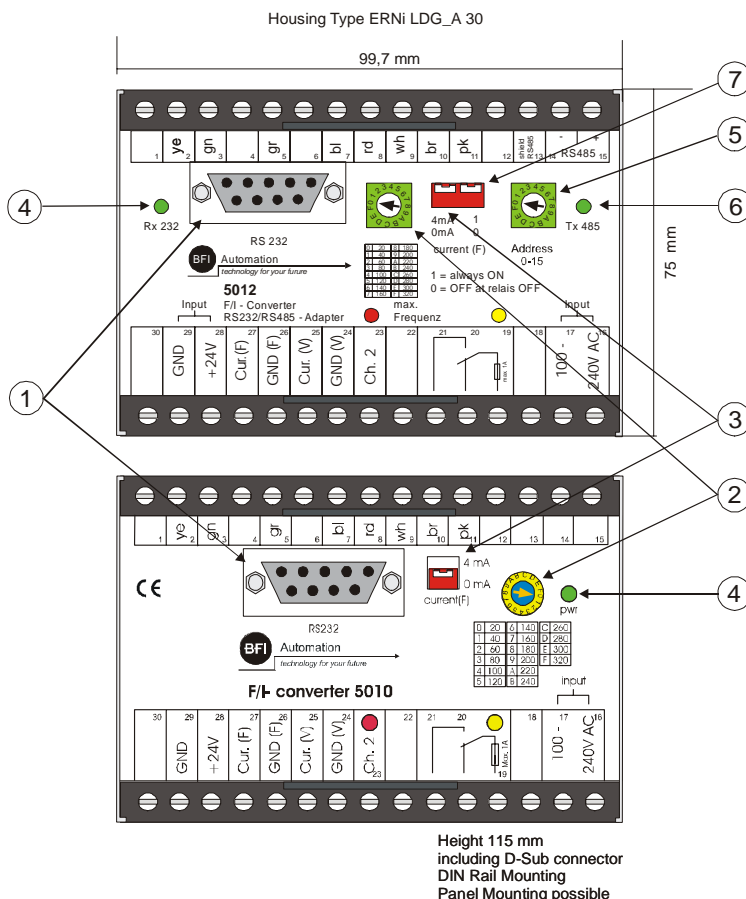
additional current output of 0(4) – 20mA generated by the main flame flicker frequency and which is in parallel to the original current output of the CFC. The main flame frequency is evaluated by a special algorithm and will be transmitted as a serial RS 232 signal to the converter boxes 5010 / 5012 (data transmission is indicated by the flashing green LED 4). The 100% value of the frequency current output can be changed in 16 steps at the rotary switch 2. The start value of 0 or 4mA can be selected with a DIP switch 3 on the front plate.

It is possible to connect a computer to the D-SUB connector on the front plate for seeing the same data as if the computer s connected by the Interface cable. This function is restricted to read only.

In addition to the 5010 it is possible to create a bus system by using the 5012 where all RS 232 data will be converted to RS 485 for a transmission of greater distances. It is possible to connect up to 16 5012 and therefore CFC 3000 together in one loop. By using a special visualization software all 16 CFC can be monitored in parallel. It is also possible to get more detailed information by using the multi window function with four different windows or as known from the CFC 2000 window as a single screen for each separate CFC 3000.

Each box and therefore burner will be addressed by itself individually with the rotary switch 5 so that every CFC can be displayed at every time. Furthermore it is not necessary to do any additional changes inside the CFC if it has to be changed.

Due to safety reasons it only possible to read data but not to have any remote control on the CFC. Each safety relevant changing on the CFC has to



be carried out on site.
With its small sizes it is easy to install on 35-mm-

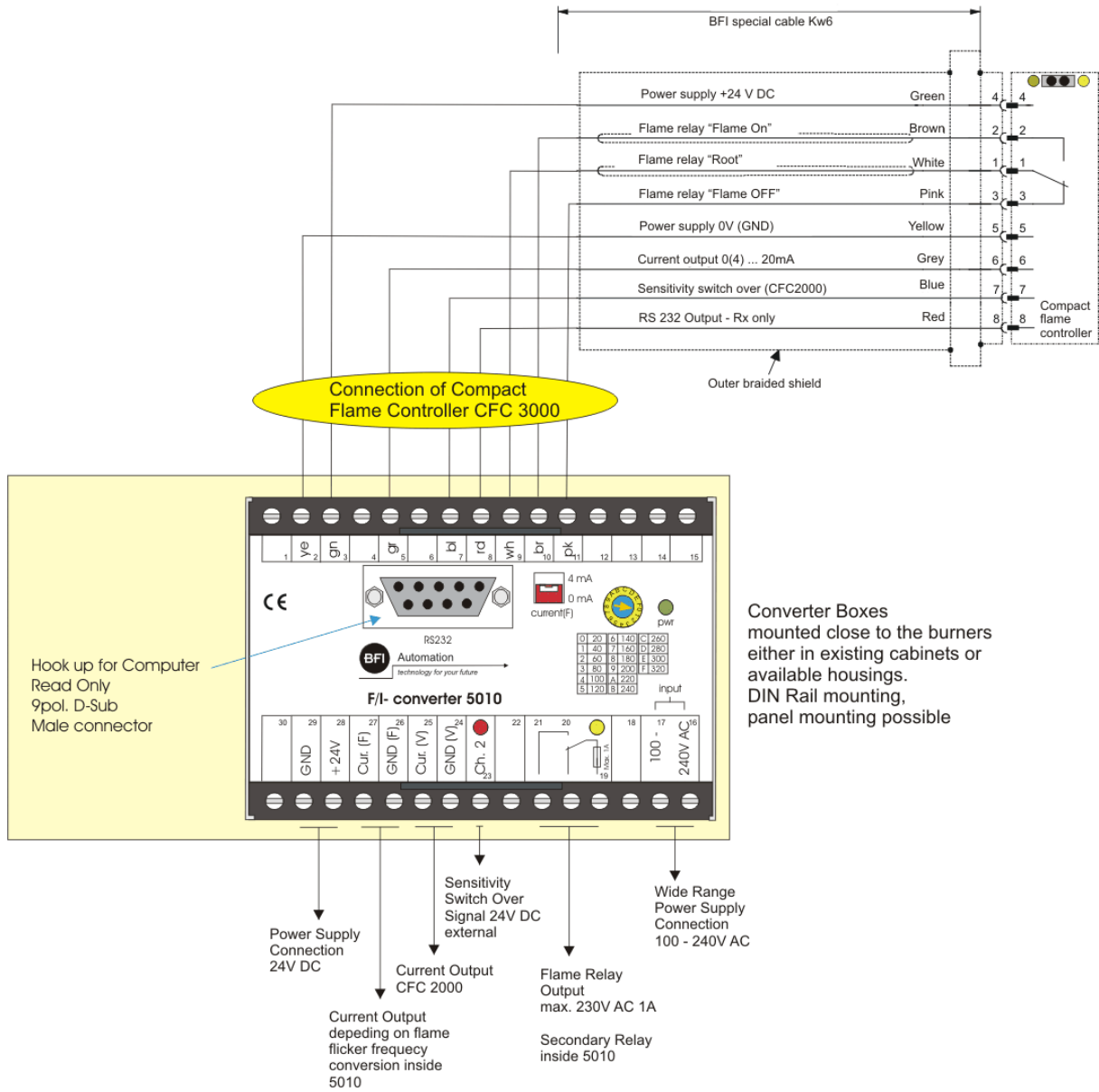
DIN rails. Furthermore it is also possible to use it for panel mounting.

Technical Data

Input voltage:	standard: 100 - 240V AC +/- 10%, 50/60 Hz oder 24 V DC
Fuse:	intern, primär 125 mA T
Output voltage:	24 V DC – CFC 3000 connection only
Max. output current:	150 mA
Flame relay:	fused with, 250V / 1A
Sensitivity switch over:	external signal 24V DC, directly connected to CFC
Current output:	Current output of the CFC 3000 0(4) – 20mA directly connected Frequency controlled 0(4) – 20mA, final value adjustable in 16 steps
Data output:	Conversion from RS 232 to RS 485 – Address 0 –16 selectable (5012 only)
Temperature range:	-20°C - +60° C
Kind of installation:	Housing for DIN rail, 35mm (panel mounting possible)
Type of protection:	IP 50
Weight 1:	ca. 450g – Single housing
Dimension (B x H x T):	99,7 x 75 x 115 mm
Weight 2:	ca. 2400g – together with ABS wall mounting housing
Dimension (B x H x T):	99,7 x 75 x 115 mm
Part-No. :	5010 - G 655 5010 with wall mounting housing - G 655.1 5012 - G 657 5012 with wall mounting housing - G 657.1

Right of technical changes reserved.

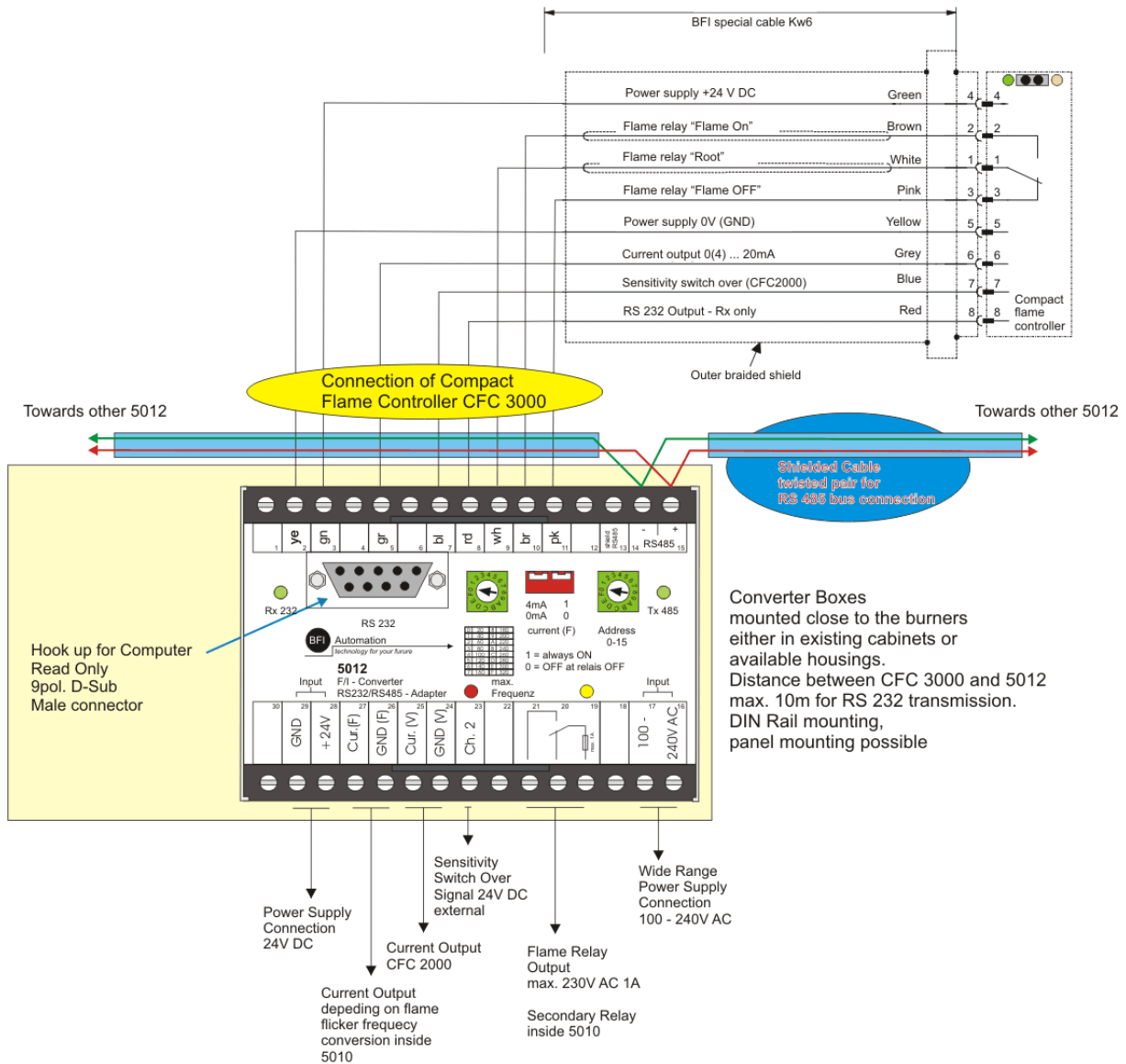
F/I Converter 5010 with additional current output depending on Flame Modulation and Power Supply Module for connection at CFC 3000



Converter Boxes mounted close to the burners either in existing cabinets or available housings. DIN Rail mounting, panel mounting possible

Signals to DCS

F/I Converter 5012 with additional current output depending on Flame Modulation, RS232/RS485 signal conversion and Power Supply Module for connection at CFC 3000



Signals to DCS

Wiring diagram if additional ABS housing is supplied by BFI Automation

