

## DFTouch2: touch screen video terminal

DFTouch2 video terminal is a color graphical with touch screen that can be freely customized; it is suitable for the management of any domotic installation realized with **Domino** bus. The main characteristics of DFTouch2 video terminal are the following:

- Direct connection to **Domino** bus
- 4.3", 16M colors display, 480x272 pixels
- Variable LED back lighting with screen saver timer
- Adjustable contrast
- Internal timekeeper with backup battery
- Up to 80 user pages
- Each page can be customized with a background image and dynamic icons to show the status of the system and to send commands to outputs
- Page change through freely customizable buttons on the screen
- Page change at the occurrence of a status change on an input module on the field; this feature is useful to realize alarm pages
- Built-in beeper with programmable features
- Displaying of temperature values measured by field modules (e.g. DFTA and DFTE), both in numerical and graphical format (bargraph)
- Displaying and editing of date and time on the bus (if DFCK3 or DFCEP modules have been installed)
- Displaying of electrical parameters of the plant measured by DFCC modules
- Sceneries management: DFTouch2 allows to create, edit and save one or more sceneries, thus this operation can be done by the final user without the intervention of the installer. The sceneries can be recalled by buttons on DFTouch2 pages or by buttons on the field. Each scenery can control lights, shutters, awnings, changing the brightness level of dimmer modules, changing the current temperature setpoint of the climatic system and much more
- Screen saver feature after a configurable timeout in the range 10 to 60 seconds
- Alarm clock feature
- Free of charge BDGraph program for a "user friendly" development of the graphical pages
- USB interface for easy and fast uploading of the application and much more

Each page can have a background in bitmap format, therefore easily customizable; moreover, BDGraph development program provides a wide library of symbols.

It is possible to install more than one DFTouch2 video terminal in the same plant.

DFTouch2 housing is suitable for mounting into standard wall box mod. 503. For details about the programming of DFTouch2, refer to the on line help of BDGraph program.

## Supplying DFTouch2

DFTouch2 video terminal is supplied by the **Domino** bus.

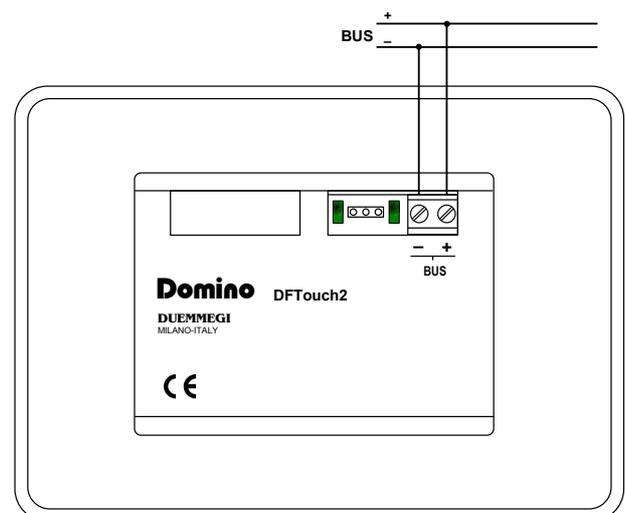


A single DFPW2 power supply, in a **Domino** system, can supply up to about 50 "generic" modules (in other words the classic input and output modules of **Domino** family). DFTouch2 video terminal has a "weight", in terms of current consumption, equal to 18 generic modules; therefore, take in account this data when designing the plant, in order to install the correct number of DFPW2 modules.

## Connections of DFTouch2

A 2-way terminal block on the rear side of DFTouch2 video terminal (+ and -) allows the connection to **Domino** bus.

As said before, DFTouch2 is supplied by the **Domino** bus itself, thus simplifying the installation because only 2 wires are required.



## BDGraph development program

For the developing of the application to be loaded into DFTouch2, the program BDGraph is available free of charge (for Windows© XP, 7, 8).

This program is the same used for the development of applications to be loaded into WEBS and DFWEB **Domino** modules and it is organized to simplify and speed up the development of the application.

For details about the use of this program and about the development of applications for DFTouch2, refer to the on line help of the program itself.

## Master/Slave setting

DFTouch2 video terminal cyclically polls the **Domino** input and output modules on the bus in order to keep updated its virtual image of the field.

When more DFTouch2 video terminals have been connected on the same **Domino** bus, it is necessary that only one of them performs this polling: this DFTouch2 will be the Master, while the other ones will be the Slaves.

If a DFCP controller has been installed in the plant (or anyway another Master module, e.g. DFWEB), then all DFTouch2 must be set as Slave.

The Master or Slave setting is performed by the BDGraph program.

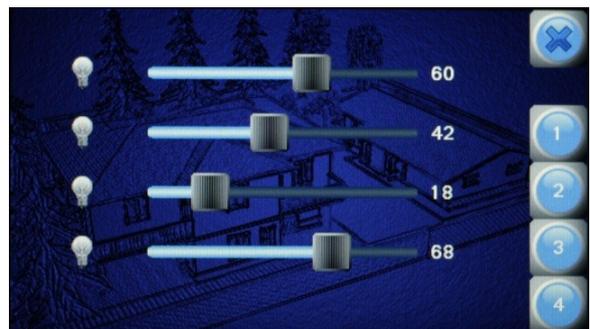
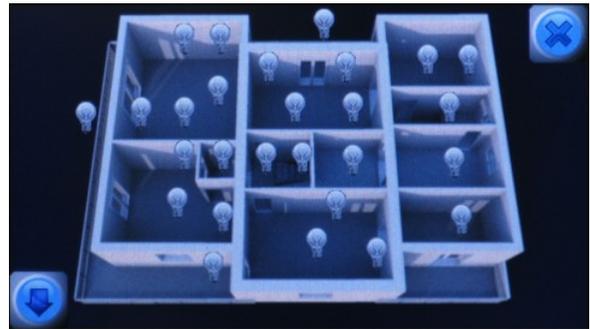
## Graphical images and icons

On each page it is possible to upload a bitmap image, in color format and 480x272 pixels dimension. This allows to have small floor plans as background or any other image as required. It is then possible, on each page, to place up to 99 icons or symbols such as buttons, light bulbs, LEDs, etc.. The icons can be animated, meaning that DFTouch2 shows different symbols depending on, for example, the status of the digital input or output related to that icon. The buttons are automatically animated in order to have the perception of the its pushing.

The following figure is an example of a graphic page.



It is also possible to place on the page other special symbols such as numeric values with texts (for example for displaying the temperature), bargraphs (for example for the display of the brightness level of dimmers) and sliders, as well as buttons for navigation between pages, as in the following figures.



## Settings

DFTouch2 provides a fixed special page, see following figure, that can be recalled by a button on the screen.



This page allows to:

- enable/disable the beeper 
- set date and time, "touching" the digits to be modified
- adjust display brightness in normal operation 
- adjust the screen saver brightness 
- set the screen saver timeout 
- recall the page of modules diagnostic , but only if DFTouch2 has been set as Master; on the contrary this button is hidden
- enable the uploading of a firmware upgrade 
- touch calibration 
- safe removing/insertion of the SD card 

**DFTouch2**

- reset USB port 
- reboot 

The label at the bottom left corner (v1.0-1.0 in the figure) shows, respectively, the the firmware version of the display and the version version of the bus interface.

The screen saver is a special page showing date and time and the alarm clock, as in the following figure.



To set the alarm clock, "touch" H e M on the bottom right corner (Hour and Minutes respectively).

**Management of Domino special modules**

DFTouch2 allows to manage the special **Domino** modules through fixed pages, thus simplifying the development of the application. These modules are the following:

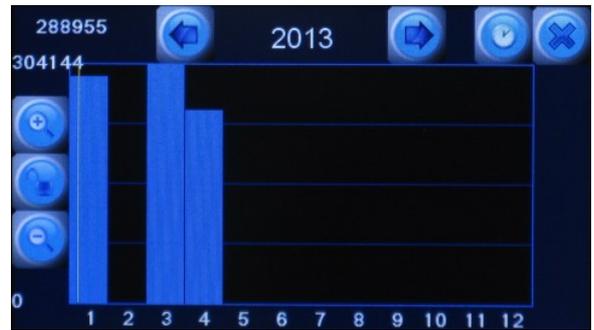
- DFCK3: displaying and editing of date and time and management of scheduled times for several zones



- DFCT: management of the temperature and scheduled times for the climatic regulation of the rooms



- DFCC2: log of data related to the consumption of electrical energy



**Sceneries**

One of the useful and effective features of DFTouch2 video terminal is the possibility to manage the sceneries. A scenery is a well defined "setting" of more output points which can be immediately recalled by pushing a simple button on the screen or connected to a field input module.

The commands to be associated to the output points belonging to sceneries can be of various type: ON/OFF, open/close, brightness level on dimmers, change of the current temperature setpoint, and so on.

For instance it is possible to create a scenery named FILM turning off the main lights of the living room, regulating the brightness of the rear wall lamps to 40% and that one of the front wall lamps to 30%, opening the projection screen, closing the shutters of living room.

During the development of the application it is possible to choose, by BDGraph program, what outputs of the domotic system (ON/OFF, dimmers, shutters, setpoints, etc.) must belong to the sceneries; the maximum amount of these points ("items") is 64.

Up to 32 sceneries can be created with the chosen items; for each scenery it is possible to recall or to change the settings of each item.

The section on DFTouch2 related to the sceneries will be automatically created by BDGraph program. The following figure shows an example of the scenery "TV Watching"; the figure shows the settings of 5 items (each scenery is made by up to 13 pages showing the settings of each one of the 64 allowable items).



For more details about the sceneries refer to the on line help of BDGraph program.

## Uploading the application

The application (or customization) developed by BDGraph must be uploaded to DFTouch2 through the USB cable connected to the related connector placed on the top side of the video terminal and to the PC running BDGraph.

To access the Mini USB connector of DFTouch2 remove the frame by sliding it outward.

It is of course also possible to perform the inverse step, which means transferring the application loaded in a DFTouch2 to the PC.

## USB communication driver

The USB communication requires the installation of a dedicated software driver on the PC which will communicate with DFTouch2. The driver must be installed only the first time you connect that PC to DFTouch2. The USB communication drivers are provided with BDGraph.

After having connected the USB cable, wait for the Windows operating system detects the new hardware and shows the window that requires the installation of the driver.

Among the options, choose to manually select the communication driver and specify the path where the .inf files are located (usually the path is like C:\Program Files\BDGraph\V8xx\DFUsbDriver and files are similar to itrontftusbXP.inf), choose the version XP or 7 depending on your operating system and wait until the end of the installation.

## Installation

DFTouch2 video terminal must be installed in a standard wall box mod. 503, with the long side of the box positioned along the horizontal axis.

Screw the provided plastic frame to the 503 box. Connect the bus cable to the related terminals on the rear panel, then insert DFTouch2 video terminal in the box. Pay attention to the direction of insertion (the terminal block on the rear panel must be on the top).

On the contrary of the majority of the other **Domino** modules, DFTouch2 does not need any address.

## Firmware upgrade

DFTouch2 uses a firmware for the display and a firmware for the bus interface; the versions of these two FWs are shown in the Setting special page (see the related paragraph). For instance, v1.0-1.0 means, in the same order, the version of the display FW and the version of the bus interface FW.

The possibility to upgrade the firmware allows to have the module always up to date with the latest changes and new features, so it is always open to the future.

### Display Firmware

The display FW upgrade is performed by BDGraph program installed on a PC connected to the MiniUSB connector of DFTouch2. From the main menu of BDGraph select Communication and then Program DFTouch2; in the window Program DFTouch2 that will be shown, open the communication selecting the proper COM port in the list (if the communication has been correctly opened, the FW versions, e.g. V1.1 – V1.1, will be shown), then press the button Upgrade FW. Then select, by the Browse button, the .ppf file related to the new FW to be loaded (e.g. DFT10.ppf); this file is normally placed in the folder DFTouch2 of the path where BDGraph has been installed.

### Bus Interface Firmware

The upgrade of the interface FW is performed via the **Domino** bus, thus without needing to unmount DFTouch2 from its location. The upgrading must be performed using Boot-Tools program, available on **Duemmegi** website, thus refer to the related manual. Anyway, before to start the upgrading, DFTouch2 must be set to receive the new FW.

To do this, open the Setting page on DFTouch2 (see the related paragraph) and press the button for enabling the

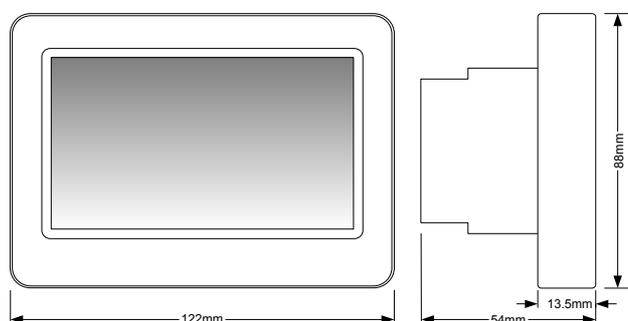
uploading of firmware upgrade . Finally, start the uploading of the new FW in the next 15 seconds, then wait for the end of the upgrading operation.

## DFTouch2

### Technical characteristics

Supply voltage	By <b>Domino</b> bus through proper DFPW2 power supply
Bus current consumption	Equal to 18 standard modules
Display	4.3" transmissive LCD 480x272 , 16M colors, LED backlight
Visibile area	95 x 53 mm
Contrast ratio	250:1
View angle	60 degrees
Contrast adjustment	Via touch panel
Interface to PC	USB with MINI connector
Number of user pages	50
Images and icon format	Bitmap (.BMP)
MAX number of icons per page	99
Number of allowable sceneries	32
Total number of items to be used in sceneries	64
Special pages	For DFCK3, DFCT, DFCC2
Internal timekeeper	Yes, with backup battery
Alarm clock feature	Yes
Acoustic signaling	Internal beeper with programmable functionality
Housing	For standard wall box mod. 503
Operating temperature	0 ÷ +50 °C
Storage temperature	-20 ÷ +70 °C
Protection degree	IP20

### Dimensioni



### Correct disposal of this product



(Waste Electrical & Electronic Equipment)  
(Applicable in the European Union and other European countries with separate collection systems). This marking on the product, accessories or literature indicates that the product should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources. Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling. This product and its electronic accessories should not be mixed with other commercial wastes for disposal.

### Installation and use restrictions

#### Standards and regulations

The design and the setting up of electrical systems must be performed according to the relevant standards, guidelines, specifications and regulations of the relevant country. The installation, configuration and programming of the devices must be carried out by trained personnel.

The installation and the wiring of the bus line and the related devices must be performed according to the recommendations of the manufacturers (reported on the specific data sheet of the product) and according to the applicable standards.

All the relevant safety regulations, e.g. accident prevention regulations, law on technical work equipment, must also be observed.

#### Safety instructions

Protect the unit against moisture, dirt and any kind of damage during transport, storage and operation. Do not operate the unit outside the specified technical data.

Never open the housing. If not otherwise specified, install in closed housing (e.g. distribution cabinet). Earth the unit at the terminals provided, if existing, for this purpose. Do not obstruct cooling of the units. Keep out of the reach of children.

#### Setting up

The physical address assignment and the setting of parameters (if any) must be performed by the specific softwares provided together the device or by the specific programmer. For the first installation of the device proceed according to the following guidelines:

- Check that any voltage supplying the plant has been removed
- Assign the address to module (if any)
- Install and wire the device according to the schematic diagrams on the specific data sheet of the product
- Only then switch on the 230Vac supplying the bus power supply and the other related circuits

#### Applied standards

This device complies with the essential requirements of the following directives:

- 2004/108/CE (EMC)
- 2006/95/CE (Low Voltage)
- 2002/95/CE (RoHS)

#### Note

Technical characteristics and this data sheet are subject to change without notice.