YACHTICA®

Automated Living on Board.

SPD 801X

8 I/ 10 PUSH BUTTONS INTERFACE

This installation manual has been written by the manufacturer and it is considered integrating part of this product.

The information included are intended for the expert technicians who execute the installation and the extraordinary maintenance of the product.

The expert technicians must have specific competences and particular abilities in order to carry out correctly and safely their work.

The constant observance of the information included in this manual guarantees safety of men, energy serving and a longer duration of product operative-life.

In order to avoid wrong handling and the consequent risk of accidents, it is important to read this manual carefully, keeping scrupulosly to guidelines according to the supplied information.

CONFORMITY DECLARATION

All the devices of the YACHTICA® system are designed in order to comply the directives:
- EN 60945 Maritime navigation and radiocommunication equipment and system.
- IEC 61000;

All the devices of the YACHTICA® system are tested and found to comply with the specification of the CE marking.

CE

CONTENTS

DESCRIPTION

The SPD 801X is equipped with an integrated programmable microcontroller for management of 8 dry contact inputs and 1 output.

The module can be located inside a standard box or behind a bulkhead. The module is suitable for wiring up to 8 dry contact inputs from command button lighting, TV lifts, curtains and other devices connected to the EasyBUS system.

The module can be used in stand-alone mode or connected to other modules of the YACHTICA® system through the use of the BUS system EasyBUS. It can be easily programmed allowing to create global scenes controlled by push-buttons and/or integrated to be controlled by smartphone/tablet or touch screen.

FEATURES

1 Outputs

The output can be used to switch on a small load. Can be powered with a 24Vdc both with common positive or common negative (see wiring diagrams. The output allows to manage lighting sources, fan, TV lift and any other device which required an on/off control, (an external relè is normally required).

8 Programmable dry contact inputs

The module allows to control single outputs or light scenes on it, or on other modules connected in the same EasyBUS network, using the 8 dry contact inputs where push-buttons or sensors can be connected. The inputs are programmable using the YACHTICA® software Cabot.

EasyBUS communication

The module is able to communicate with other devices of the YACHTICA® automation system when connected inside an EasyBUS network. The removable EasyBUS connecting block is used to link the module to the other modules of the same EasyBUS network.

Cabot programming software

The module can be programmed, managed and monitored using the YACHTICA® software Cabot.

Stand-alone mode

The module has a standard programming that allows to manage outputs and light scenes, connecting push-buttons or sensors to the dry contact inputs.

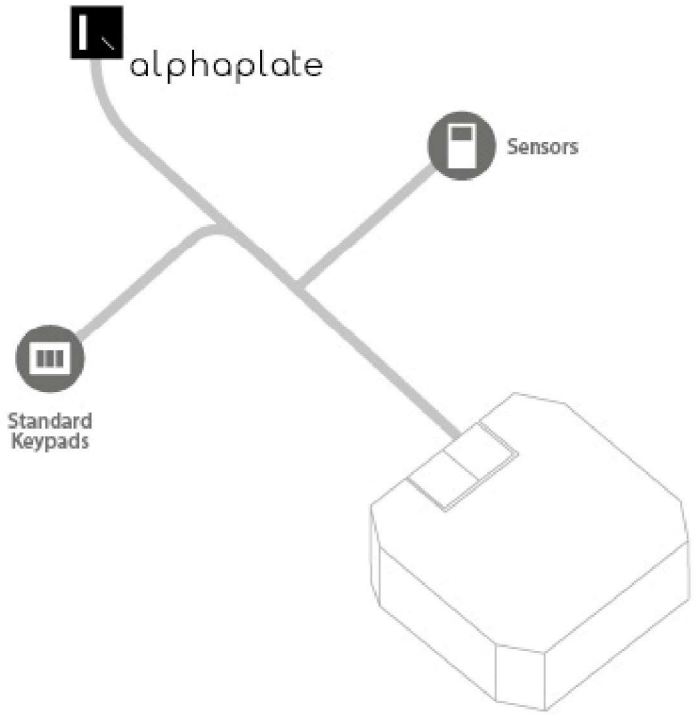
Detachable terminal block

All the terminal block of YACHTICA® modules are detachable, allowing a simple wiring and a quick replacement without the needed to disconnect any cable, with a high level of security and stability of the system.

Tropicalized electronic

All the YACHTICA® modules have a tropicalization treatment in order to prevent a deterioration due to the humidity and sea mist.

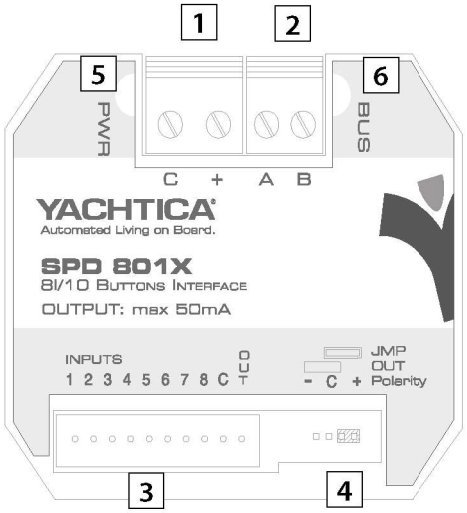
APPLICATIONS

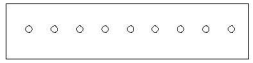


TECHNICAL SPECIFICATIONS

SPECIFICA	DETTAGLI
Electronic power supply	11-28VDC
Electronic requirements	0,4W (16mA @24VDC, 32mA @12VDC)
Outputs power supply	Max 24VDC
Outputs	1
Dry contact inputs	8
Load ratings	120mA
Default address	32
Working temperature	+5°/+50° C (41°/122° F)
Storage temperature	-40°/+70° C (-40°/+158° F)
Humidity	15%/90% non condensing
Heat dissipation (@Ta=40°C, maximum load)	0,85W
IP Protection	IP20
Enclosure	Self-extinguishing UL94-V0
Color	RAL 7053
Dimensions (LxHxD)	50x44x15 mm (wiring excluded)
Weight	25g
Compliance	CE: EN60945; EN61000-4-2; EN61000-4-3; EN61000-4-4; EN61000-4-5; EN61000-4-6; EN61000-4-11; CISPR 16-1-1;

MODULE DESCRIPTION



#	CONNECTORS, LED, INDICATORS	DESCRIPTION
1		**2 poles detachable connector;** **Maximum cable section:** 1,5mm² (12AWG); Electronic power supply connector; **+:** positive 11-28VDC; **C:** negative 11-28VDC. Be sure that all the negative poles of all the power supplies used for electronic are in parallel. **NOTE: it is necessary to use a dedicated stabilized power supply for the electronic of all the modules inside a switchboard. It's important that modules installed into different switchboards connected together have negative poles in parallel (the use of YACHTICA® AMP 102D is suggested).**
2		**2 poles detachable connector;** **Maximum cable section:** 1,5mm² (15AWG); EasyBUS connector; **A:** BUS A pole; **B:** BUS B pole. Be sure that cabling of BUS connector is consistent for all the modules in the network. This avoid bad working of the system.
3		**Inputs pacth connector;** 8 dry contact inputs connector; **IN1:** orange; **IN2:** yellow; **IN3:** green; **IN4:** blue; **IN5:** purple; **IN6:** grey; **IN7:** white; **IN8:** black; **C:** red common. **O1:** brown.
4		**Output polarity jumper;** The jumper position determines the output polarity. **Left jumper:** positive output, negative common (C power connector); **Right jumper:** negative output, positive common (+ power connector).

#	CONNECTORS, LED, INDICATORS	DESCRIPTION
5	PWR	**Green LED, PWR.** On if electronic power supply is given.
6	BUS	**Orange LED, BUS.** *LED Blinking*: the module is connected to other modules in an EasyBUS network and is not the master module. Blinking frequency depends on the address of the module; *LED On*: the module could be the master of an EasyBUS network or could fail to communicate with the rest of the network(1).

(1) See PROBLEM SOLVING paragraph

INSTALLATION

Important notes

The following information are intended for the expert technicians who execute the installation and the extraordinary maintenance of the product. The installation and the maintenance of the module must be executed by qualified technicians, respecting the Norm of the installation country.

The expert technicians must have specific competences and particular abilities in order to carry out correctly and safely their work.

The constant observance of the information included in this manual guarantees safety of men, energy serving and a longer duration of product operative-life. Keep this manual and notes included.

In order to avoid wrong handling and the consequent risk of accidents, it is important to read this manual carefully, keeping scrupulosly to guidelines according to the supplied information.

Electrical tension may cause shock and severe burns. Be sure to turn off the electrical supply before carrying out any type of work on the connectors. Omission of observation of these safety measures may cause death or severe lesions to people as well as great material damages.

Before preceeding with the use of the modules, make sure that electric installation, carried out by a qualified technician in conformity with the Technical Norms, corresponding to the class of homologation of the electrical system, is provided with the devices prescribed for the protection against direct and indiriect contacts and electrical surcharges.

The modules of the YACHTICA® must be exclusively used in connection with other modules and external components which are conformed to the Norms comparative to the product.

Do not use the module if, upon visual inspection, it shows deterioration of the enclosing box or if the screening wraps of the feeding cables show any wear and tear or damage.

The YACHTICA® system may not be used to carry out safety and accident prevention functions since it does not have the redundancy requirements lawfully requested.

The installer must verify the correct installation and operation of the product.
It is prohibited to use the product for improper purposes or purposes different from those provided

V.Y.C. Srl shall not be held liable for any damage of any sort or kind in case of module used or installed incorrectly.

It is prohibited to tamper or to modify the product.

Before starting

Always switch off the electronic and outputs power supply before carrying out any type of electrical connection on the module.

NOTE: use a dedicated stabilized power supply for electronic modules installed into a switchboard. If into an EasyBUS network more than one power supply is used (for instance, one power supply for each switchboard containing YACHTICA® modules) be sure that all the negative poles of all the power supplies are in parallel (it is suggested to use YACHTICA® AMP 102D).

The module is intended for internal use. Install it in dry place in order to respect the specifications described in the TECHNICAL SPECIFICATIONS paragraph of this manual.

Blackout management

The YACHTICA® modules manage the states of lack of power supply both for the electronic and the power in case of dimming modules.

Lack of electronic power supply (all modules).
In case of lack of this tension the module switch off. After the blackout the outputs come back to their latest values before the blackout.

Lack of power supply for outputs (dimmer modules).
In case of lack of power supply for the outputs, the dimmer modules show this with a blinking of FUSE PROTECTION LED and the lighting icons on the display will disappear. After the blackout, if no problem occurs, the outputs come back to their latest values.

Addressing

Each YACHTICA® module placed into an EasyBUS network must have a unic address. The default address for all YACHTICA® modules is 32 and Max Address 33. Before connect the BUS connectors of more modules in the same net, be sure that they have a different address. It is possible to address the module using the display.

It is possible to change the address of a module using the YACHTICA® programming software Cabot.

NOTE: a module cannot communicate with other modules in the same net if its Address is upper than the Max Address of the others (see Cabot manual).

WIRING DIAGRAMS

Shown below different wiring diagrams that can be used when installing a SPD 808X module.

NOTE: all the YACHTICA® modules installed in an EasyBUS network must have the negative pole of electronic power supply in parallel. If this specification is not verified unexpected behaviour of the system can happen.

NOTE: it is not possible to wire an EasyBUS network in a ring. If this specification is not verified unexpected behaviour of the system can happen.

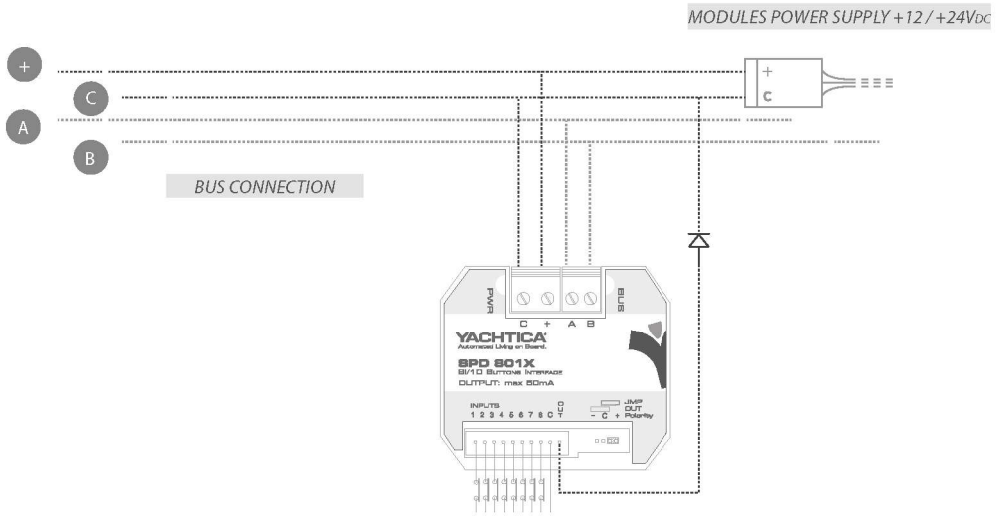
To link different switchboards with YACHTICA® modules inside it is suggested to use AMP 102I module.

For particoular wiring ask for YACHTICA® assistance.

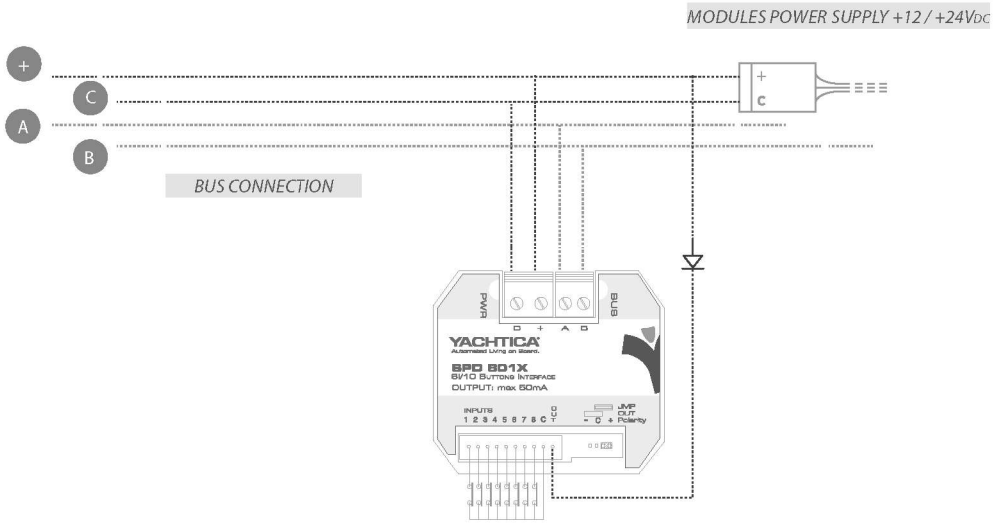
CAUTION: verify carefully that the terminal blocks are fully insert in their position and that the wires are fully insert in their position and screwed correctly.

CAUTION: the terminal block are tested and certified for use with flexible or rigid cord. The component builder does not contemplate the use of tips whose use is the responsibility of the installer. In this case it is recommended the utmost attention in the crimping that must be uniform on all 4 sides to avoid the creation of contact tips.

SCHEME 1: Wiring output common negative



SCHEME 2: Wiring output common positive



PROGRAMMING

STANDARD PROGRAMMING

By the use of the 8 dry contactc inputs it is possible to manage the outputs in on/off mode. The functionalities of the inputs and outputs can be tested using Cabot.

NOTA
The 8 inputs do the "On/Off Toggle" function: a short press switch on and off the output.

STANDARD PROGRAMMING
This programming allows the activation of each output by pressing of the relative input.

# IN	FUNCTION NAME	DESCRIPTION
1	**On-Off Toggle**	A short press on input 1 invert the output 1 status.

Programming with Cabot

The module can be programmed using the YACHTICA® software Cabot. Read the manual of the software for all the information needed about Cabot and the module programming.

For programming examples surf the link www.yachtica.com

For advanced programming requested contact YACHTICA® technical department if needed.

PROBLEM SOLVING

PROBLEM	POSSIBLE CAUSE	POSSIBILE SOLUTION
Module does not switch on	The module doesn't receive power supply on the electronic power supply connector	Check that dedicated power supply is working properly, providing right output voltage according to the specifications written in this manual.
	Positive and negative cabling poles inverted	Check that dedicated power supply positive and negative poles are connected in the right way.
The module has the BUS LED always on but its address is not the lowest used in the network	The modules has address higher than the MAX ADR of the module with lowest address in the network	Check the MAX ADR value of the module with lowest address in the network. Set the address of the module according to that value.
	Problem on the BUS cable	Check the cabling of all the BUS chains connected to the same loop of the module. Short circuit or inversion on A-B poles can be present.
Nothing happens while pressing a button connected to an input of the module	The input has no functionality programmed	Use Cabot software to check the programming of the module, in particular for the not working input.
	Broken cable problem	Check that while pressing the button the corresponding label on the display is switched on. Check cabling in case it doesn't happen.

REPAIR AND WARRANTY POLICIES

NOTE

Merchandise returns

No V.Y.C. Srl merchandise may be returned for credit, exchange or service without prior authorization from V.Y.C. Srl. To obtain warranty service for V.Y.C. Srl products, contact V.Y.C. Srl or an authorized dealer. Request for an RMA (Return Merchandise Authorization) and fill it in properly all the fields, before returning the module. Shipments arriving freight collect or without RMA number shall be subject to refusal.

Return freight charges following repair of items under warranty shall be paid by V.Y.C. Srl, shipping by standard ground carrier. In the event repairs are found to be non-warranty, return freight costs shall be paid by the purchaser. V.Y.C. Srl will provide repairing costs in case the merchandise is not under warranty.

V.Y.C. Srl limited warranty

V.Y.C. Srl warrants YACHTICA® products to be free from manufacturing defects in materials and workmanship under normal use for a period of 2 years from the date of purchase.
This warranty extends to products purchased directly from V.Y.C. Srl or an authorized YACHTICA® dealer.

V.Y.C. Srl shall not be liable to honor the terms of warranty if the product has been used in any application other than that for which it was intended or if it has been subject to misuse, accidental damage, modification or improper installation procedures
Furthermore, this warranty does not cover any products that has had the warranty void label altered, defaced or removed.

V.Y.C. Srl shall, at its option, repair or replace any product found defective, without charge for parts or labor. Repaired or replaced equipment and parts supplied under this warranty shall be covered only by the unexpired portion of the warranty.

Except as expressly set forth in this warranty, V.Y.C. Srl makes no other warranties, expressed or implied, nor authorizes any other party to offer any warranty, including any implied warranties of merchantability or fitness for a particular purpose. Any implied warranties that may be imposed by law are limited to the terms of this limited warranty.

This warranty statement supersedes all previous warranties.

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