



ISMY 6XP

SMART MARINE MODULE

CONTENTS

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 scrupulously 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;
- IEC 60068;
- IEC 60695;
- Rules for the Classification of Ship - Part C - Machinery;
- Systems and Fire Protection - Ch. 3, Sec. 6, table 1.

TYPE APPROVAL RINA: N° DIP244620CS

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



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DESCRIPTION

iSMY 6XP is equipped with an integrated microcontroller module used to control 24Vdc light sources with 6 power outputs. Its peculiarity lies in the fact that each output can be set, using the Android Yachtica app iSMY TECH (via NFC antenna), as operation on/off, dimmer (dimmer on the positive) or curtains (up/down, by support relay), all without changing the wiring of the module.

The module is rated to work with voltage driven monochromatic LEDs (with or without driver added). It can also be used to control 24Vdc incandescent and halogen lamps. Each channel handles up to 5A.

On the module there are 8 dry contact inputs for the wiring of buttons and sensors, with which you can control the individual outputs and/or 2 global scenarios (set by iSMY TECH).

In addition to standard programming, which allows it to be used in stand-alone mode by attaching clean contact buttons to the first 6 inputs and managing outputs in on/off mode, you can customize the operation of the module using the iSMY TECH Yachtic APP.

The module communicates with up to 9 other iSMY 6XP modules to which you can add Yachtica BUS wallplates, HPLATE and KPLATE. The iSMY user APP can manage the light circuits by the customer (requires the use of the iSMY ETH module connected to on-board Wi-Fi).

FEATURES

6 Outputs: on/off, dimmer (on positive), curtains

Each channel allows the management of monochrome light sources in on/off or dimmer mode. It also allows the management of curtains, extractors, lift TV using support relays (see schematics).

8 Programmable dry contact inputs

The module allows the management of single outputs according to the set mode and 2 scenarios through the 8 dry contact inputs that can be activated by button or sensor. Scenario inputs are fully programmable using ISMY's TECH APP.

EasyBUS communication

The module can communicate with up to 9 other ISMY 6XP modules by connecting it within an EasyBUS network. The module has a removable EasyBUS connector to use for this purpose.

Programmable by Android app

The module can be programmed managed and monitored through the YACHTICA technical app® TECH APP.

Stand-alone mode

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

NFC Antenna

The module is equipped with an NFC antenna through which you can set the functionality of each individual output and a series of light scenarios using the android tech app TECH APP (to be requested by Yachtica).

DIN rail installation

The iSMY 6XP module can be installed into an electrical switchboard using DIN rail. Once installed and the switchboard closed, the module's front panel, with control buttons and the display, is still accessible.

Detachable terminal block

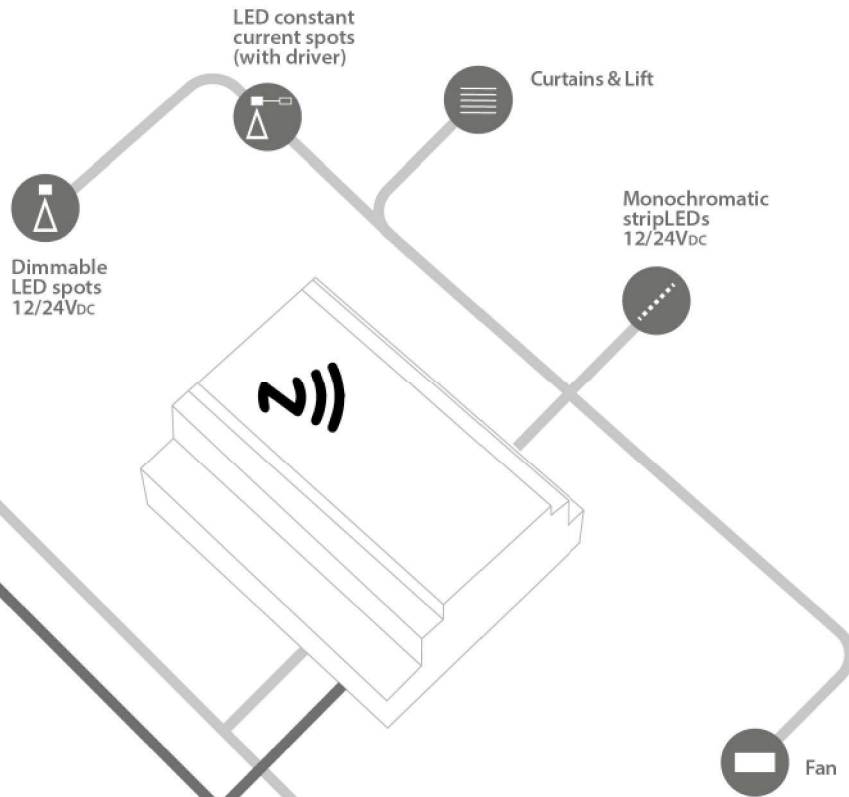
All the terminal block of YACHTICA® modules are detachable, allowing a simple wiring and a quick replacement without the need to disconnect any cable, with a high level of security and stability of the system.

Tropicalized electronic

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

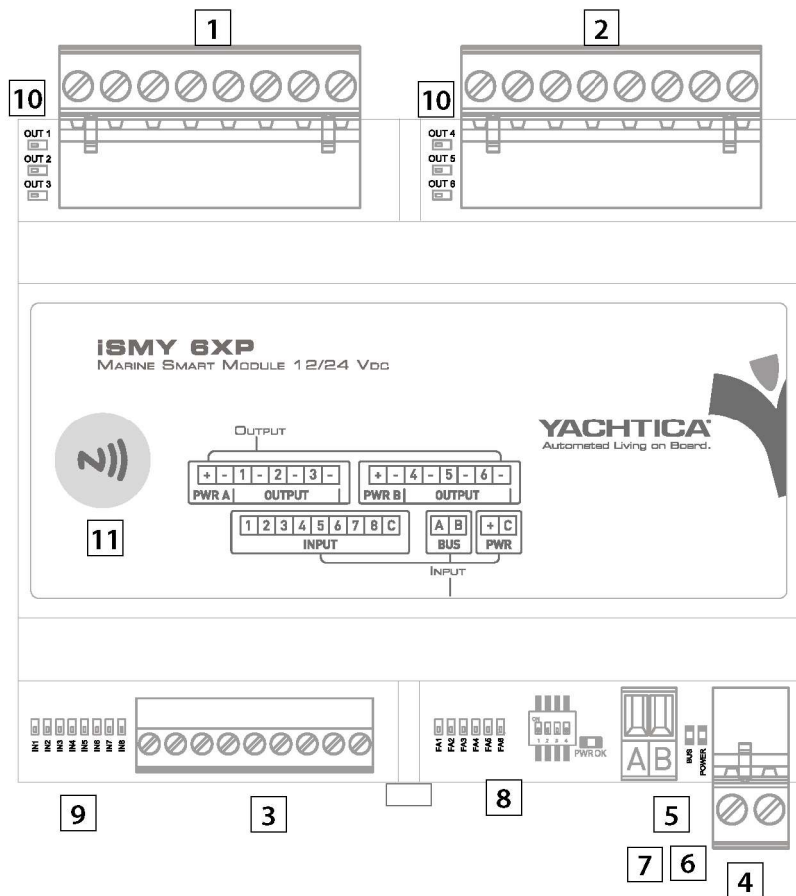
APPLICATIONS

TECHNICAL SPECIFICATIONS



SPECIFICATION	DETAILS
Electronic power supply	20-28V _{dc} (32V _{dc} peak)
Electronic requirements	0,6W (24mA @24V _{dc} , 48mA @12V _{dc})
Outputs power supply	24V _{dc}
Outputs	6
Dry contact inputs	8
Load ratings	- 5A@24V (120W) per channel, PWM 200Hz
Default address	1
Working temperature	+5°/+55° C (41°/122° F)
Storage temperature	-40°/+70° C (-40°/+158° F)
Humidity	15%/90% non condensing
Heat dissipation (@Ta=40°C, maximum load)	4,9W
IP Protection	IP20
Enclosure	Self-extinguishing UL94-V0
Color	RAL 7035
Dimensions (LxHxD)	106x58x90 mm (6 DIN module spaces)
Weight	160g
Compliance	CE; EN60945; EN61000-4-2; EN61000-4-3; EN61000-4-4; EN61000-4-5; EN61000-4-6; EN61000-4-8; EN61000-4-11; CISPR 16-1-1; EN 60695-11-5; IEC60068-2; IEC60068-6; IEC60068-30; RINA Rules 2018 Pt. C, Ch. 3, Sec.6.

MODULE DESCRIPTION



#	CONNECTORS, LED, INDICATORS	DESCRIPTION
1		<p>8 poles detachable connector; Maximum cable section: 2,5mm² (12AWG); Input PWR A & Outputs 1-2-3 connector; -: negative 24Vdc; +: positive 24Vdc. 1: positive output 1/PWM output 1; -: negative output 1; 2: positive output 2/PWM output 2; -: negative output 2; 3: positive output 3/PWM output 3; -: negative output 3;</p>
2		<p>8 poles detachable connector; Maximum cable section: 2,5mm² (12AWG); Input PWR B & Outputs 4-5-6 connector; -: negative 24Vdc; +: positive 24Vdc. 4: positive output 4/PWM output 4; -: negative output 4; 5: positive output 5/PWM output 5; -: negative output 5; 6: positive output 6/PWM output 6; -: negative output 6;</p>
3		<p>9 poles detachable connector; Maximum cable section: 1,5mm² (15AWG); 8 dry contact inputs connector; 1-8: inputs; C: common.</p>
4		<p>2 poles detachable connector; Maximum cable section: 2,5mm² (12AWG); Electronic power supply connector; +: positive 11-28Vdc; -: negative 11-28Vdc. Be sure that all the negative poles of all the power supplies used for electronic are in parallel.</p> <p>NOTE: it is suggested 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).</p>

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 saving 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 scrupulously 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 indirect 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.

#	CONNECTORS, LED, INDICATORS	DESCRIPTION
5		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.
6		Green LED, PWR. On if electronic power supply is given.
7		Orange LED, BUS. <i>LED Blinking:</i> 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; <i>LED On:</i> the module could be the master of an EasyBUS network or could fail to communicate with the rest of the network ⁽²⁾ .
8		Red LED signaling of relative output malfunction, FAULT (FA1... FA6). - <i>Fixed LED:</i> short-circuit output (NOTE: load is not protected by short circuit with fuse); - <i>Flashing LEDs:</i> lack power supply for its outputs 1-2-3 and/or 4-5-6;
9		Orange LED, relative input pressure, INPUT (IN1... IN8). On, the LED as long as the corresponding input is pressed.
10		Orange LED, relative output status, OUTPUT (OUT1... OUT3, OUT4... OUT6). The led is turned on at an intensity equal to the value of the corresponding output.
11		Antenna NFC. Place the mobile phone antenna near the symbol to read/update the module programming using the TECH APP.

⁽¹⁾ See PROBLEM SOLVING paragraph.

Before starting

Place the module inside a switchboard and follow carefully the following wiring diagrams. The module can be installed on DIN rail.

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.

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® into an EasyBUS network must have a unique address. The default ADR of all ISMY 6XP modules is 1 and MAX 33.

You can set the address of the form by using TECH APP.

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 iSMY 6XP 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.

For particular wiring ask for YACHTICA® assistance.

WARNING: it is suggested to protect each output with a fuse according to the wiring used. Sizing the protection according to the wires used and to the the load connected to them.

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. Any wrong wiring, considering the high rate of currents running in the module, could cause an excessive overheating. It is suggested to protect the power input section in order to avoid any loop of current due to wrong wiring in the field, not monitored by the module itself.

WARNING: do not use the terminal blocks PWR A and PWR B as a junctions to other links. Such wiring can involve an overcurrent on the first terminal block.

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.

NOTE: it is suggested to protect each output properly (fuse), according to the wiring present on board. Choose proper size of protections according to the section of the cables used and according to the load connected.

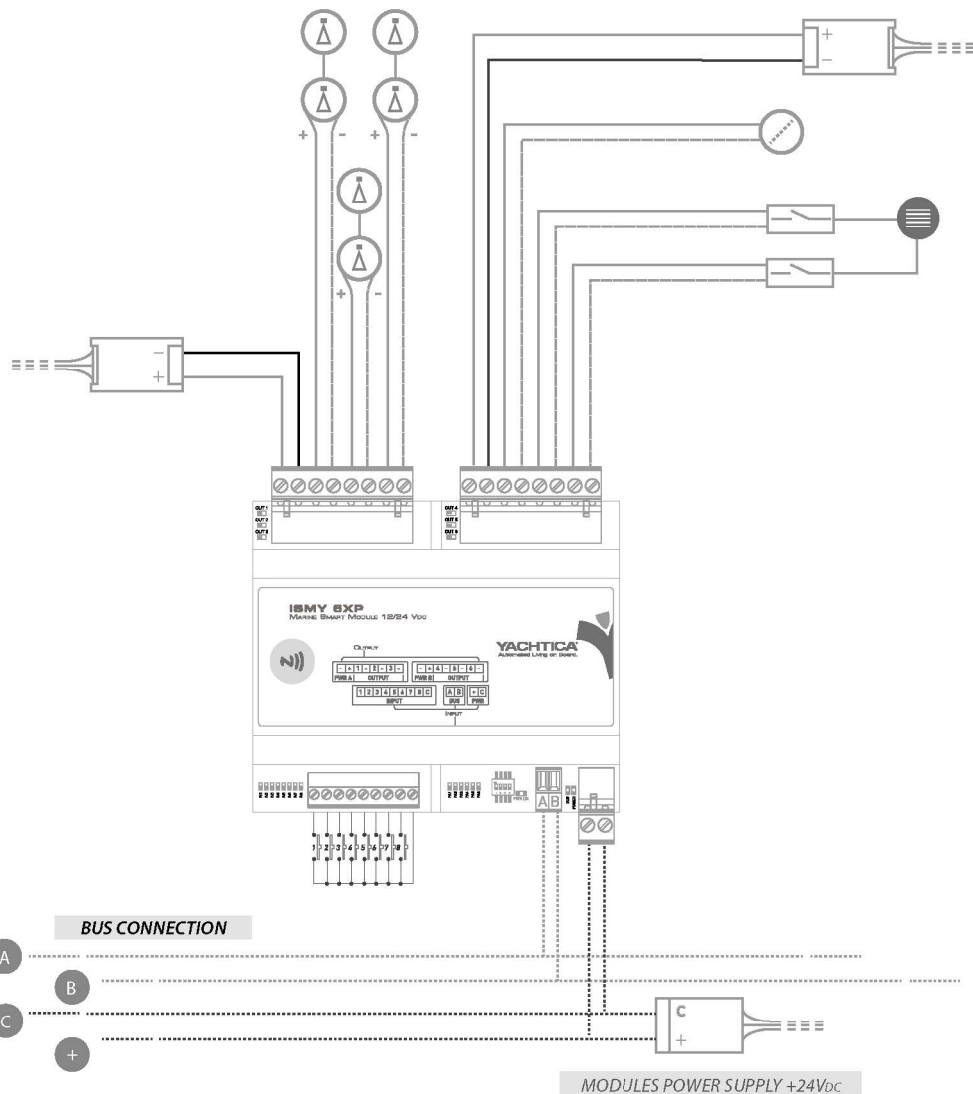
SCHEME 1: Direct wiring on the module

PROGRAMMING

STANDARD PROGRAMMING

Using the 8 clean contact inputs you can manage the 6 outputs in an on/off mode and 2 scenarios.

# IN	FUNCTION NAME	DESCRIPTION
1-2-3-4 5-6	On-Off Toggle	The pressure of each input changes the status of its output.
7-8	Scenarios	The pressure of each input invokes the scenario you set.



PROBLEM SOLVING

NOTE

PROBLEM	POSSIBLE CAUSE	POSSIBLE 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 is switched on but the outputs connected don't switch on	The module doesn't receive output power supply (Red fuse LED blinking once per second).	Check that 24V _{DC} dedicated output power supply is working properly, providing right output voltage.
	One or more outputs are in short circuit or is in protection (Red fuse LED on for corresponding output).	Check the cabling for the outputs. There's a short circuit on the output corresponding to the fuse LED switched on, or an overcurrent is occurred
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.
	Communication BUS card damaged	Communication BUS card needs to be replaced (ask help to YACHTICA® technicians).
	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.

NOTE

REPAIR AND WARRANTY POLICIES

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.

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