

NAVIOP™

OEM supply catalogue.
It's about **plus.**

Marine automation & HMI



OEM supply catalogue.
It's about **plus.**

naviop.com

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Naviop has its facilities and laboratories in Forlì, Italy, in the marine district of the northern Adriatic Sea.



Reliability is our first concern: the quality of Naviop products is tested to comply with the most strict certifications.



CEI EN 61000-6-4
Electromagnetic compatibility (EMC)
Part 6-4: Emission standard for industrial environments



CEI EN 61000-6-2
Electromagnetic compatibility (EMC)
Part 6-2: Immunity for industrial environments

CENELEC EN 60945
"Maritime navigation and radio communication equipment and systems – General requirements"



how to

We are the team to make the dreams come true: we and you. We have both the passion and the commitment to drive our project to success, in a simple yet quite efficient way.

Our expertise

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the catalogue

Units, systems and services, to fit your needs. Thanks to our skilled designers and architects, our systems are well-known in the market for their intuitive, original and user-friendly interface.

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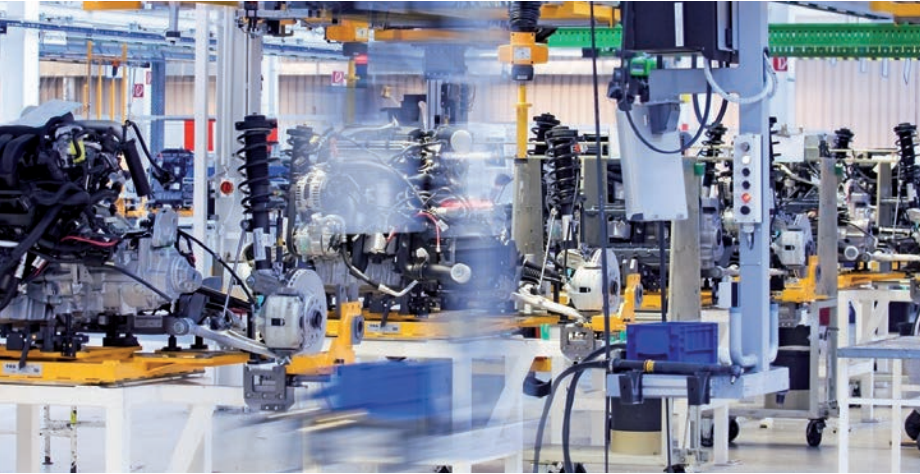
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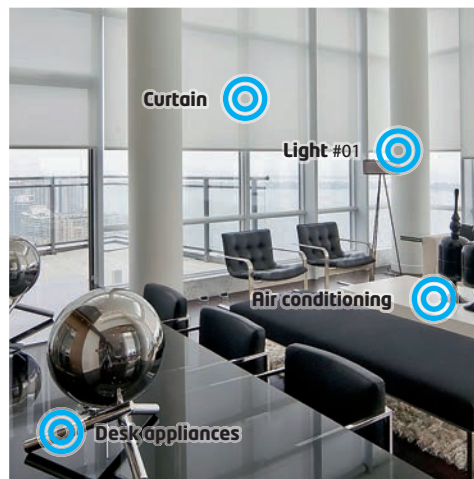
Contacts _____ 40



Naviop has its roots in the marine automation, with countless amazing projects.



Naviop expertise has been applied to various environments: marine, automotive, home & building automation. And now it's just waiting for your next, exciting project.



Naviop: a real R&D DNA

Naviop is a company of its own kind. Others talk about visions and missions, we simply say that we are proud to have deep rooted research and constant development in our DNA. We crave for technical excellence and perfect engineering, alongside with a design oriented attitude: thanks to these qualities we always manage to cope with new challenges each time, within each project. If you're thinking about your next automation project, **add a plus on it**, ask Naviop.

Technology, design, research & development, service: these are the four cardinal points always inspiring our philosophy. This DNA made Naviop the world leading brand in monitoring systems and integrated navigation.

Technology.

The Naviop brand is well-known for its state-of-the-art technology and pioneering solutions born of our wide experience in marine automation. We are the only Italian monitoring and control company which uses its own team to design and develop both software and hardware with constant attention to innovation, quality levels and product reliability.

Design.

We are aware of the importance of beauty on boats. That is why we study innovative, modern design lines and shapes with great care, choosing all raw materials with dedication. Not standardized shapes and lines, but unique and incomparable objects.

R&D.

Our engineers and developers are highly specialised and updated on new technologies, new communication systems, new research and discoveries in the field of software and materials. Innovation is the core of our company development. But we don't just do research: we aim at excellence.

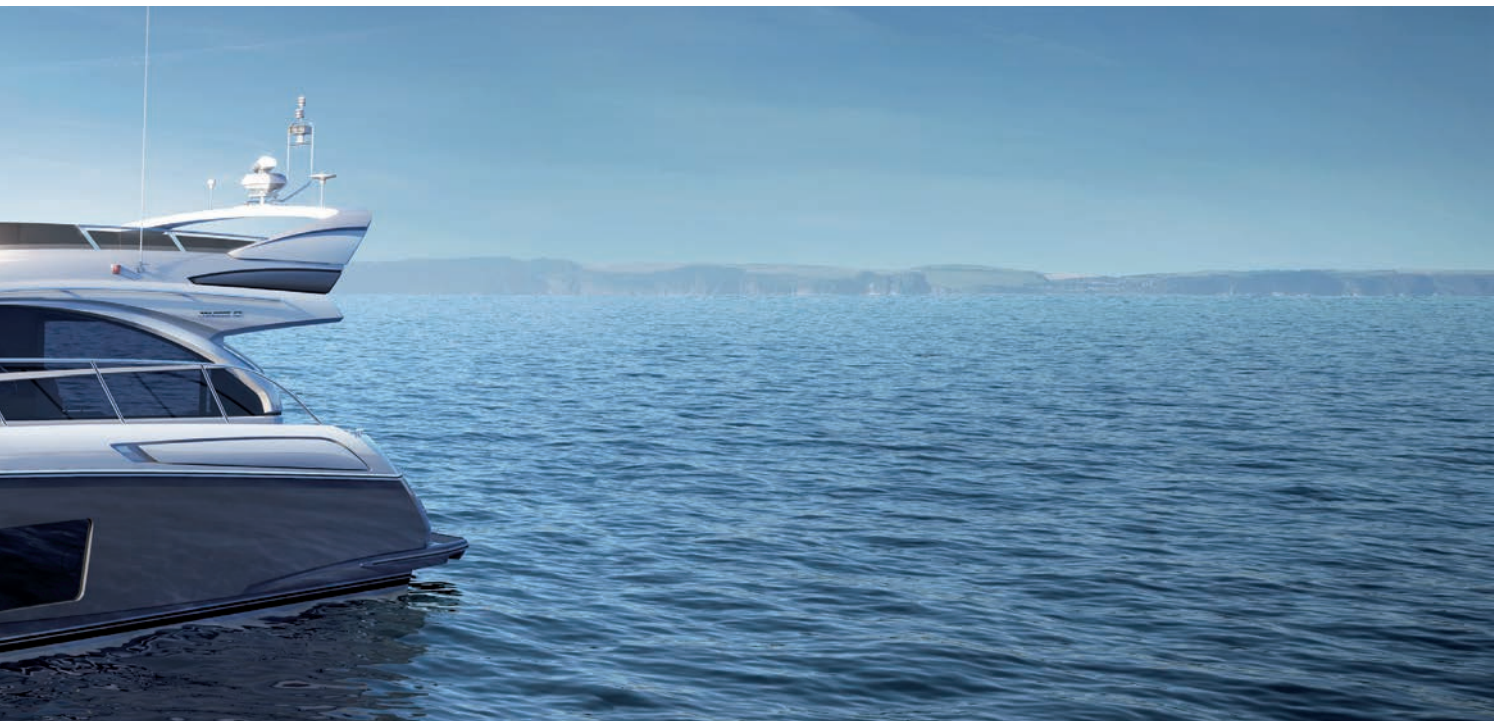
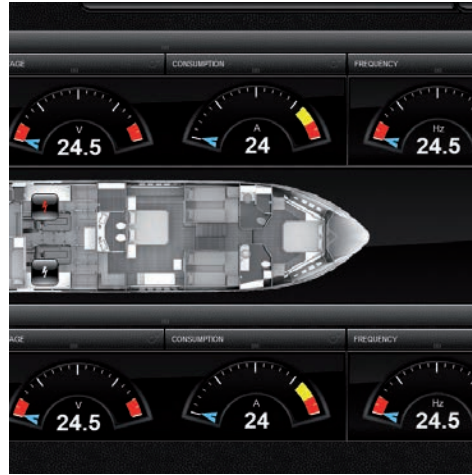
Service.

Naviop After Sales service is always close to its customers to help them make good use of their products and preserve their value over time. Thanks to a close net of more than 70 service points worldwide, customers can always rely on skilled technicians able to solve technical problems in the shortest time possible at the lowest cost.



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No matter what your project is about, if it's automation you might use some expertise from Naviop. A leader in high end solutions ranging from marine to automotive, from home & building to factory automation.



Naviop solutions allow an uncompromising level of quality and reliability, both for the UI design and technology features.

Plus your project

Naviop OEM supplies are products dedicated to skilled customers. Each element is designed to add a piece of Naviop expertise to your own project. Just pick and choose, each element works independently and can interact with a wide range of products and environments. Take advantage from the renowned Naviop R&D quality, **plus your project**.

How to.

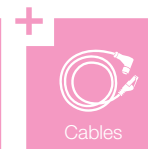
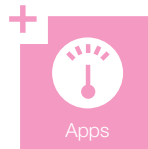
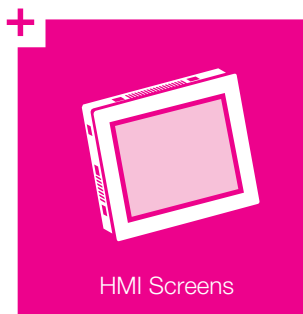
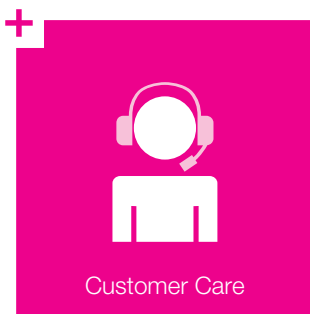
Design your own automation and control project, to fit perfectly in marine, automotive or factory environments. Or in the next one.

Take advantage of the Naviop experience including Naviop software and hardware elements within your project.

1 Knowledge*

2 Software

3 Hardware



Knowledge* elements:

Customer care: Naviop ensures a personal treatment to customers and support them before, during and after sales.

Service: for assistance you can use one of Naviop 70 worldwide service points.

Remote: Access to a new service which enables customers to remotely connect to the panel via PC through Ethernet connection.

Software elements:

N Design (Ready and in): the NAVIOP software platform for creation and management of HMI applications.

Codesys (Ready and in)
One of the most powerful IEC 61131-3 programming tools for controllers.

Apps: developed by NAVIOP engineers to grant high performances and control. Only suitable for NAVIOP BULK panels range.

Libraries: a wide range of software libraries ready to be used within the PLCs.

Hardware elements:

HMI Screens: 7 full series of HMI Screens, approved and designed for marine applications. They meet all requirements of ruggedness and reliability.

PLC: the PLC units are specifically designed for use in marine environments.

Components: hardware components specifically designed to widen and complete the NAVIOP range of products.

Cables: a wide range of cables (CANbus, Serial, Ethernet and Supply) of different types and lengths, all featuring a high index of protection IP67.



The plus of knowledge: the renowned Naviop customer care is always included in any open or ready-made solution.



A skilled customer care, worldwide service points and a remote connection.

1

Knowledge



Knowledge
Customer Care

Naviop gives top priority to customers before, during and after sales, in order to constantly enhance the level of satisfaction. Naviop helps customers to correctly use the products. It includes assistance by phone, planning, installation, trouble shooting, upgrading of each Naviop product. This service is performed by Naviop Service Department, which ensures a quick and focused reply about questions or troubles.



Knowledge is always a **plus**

Naviop knowledge services come bundled with every Naviop elements. Our commitment does not end when we supply your project, but follows you around the world. It's the professional help you need to fully use the power of our products, and it's the best way to **plus your project**.



Knowledge
Service

For any hardware problem occurring to all its OEM products, Naviop can suggest the nearest place where to find help. There are more than 70 Naviop Service Points all over the world and they are all managed by skilled technical staff who is ready and able to quickly solve all your problems.

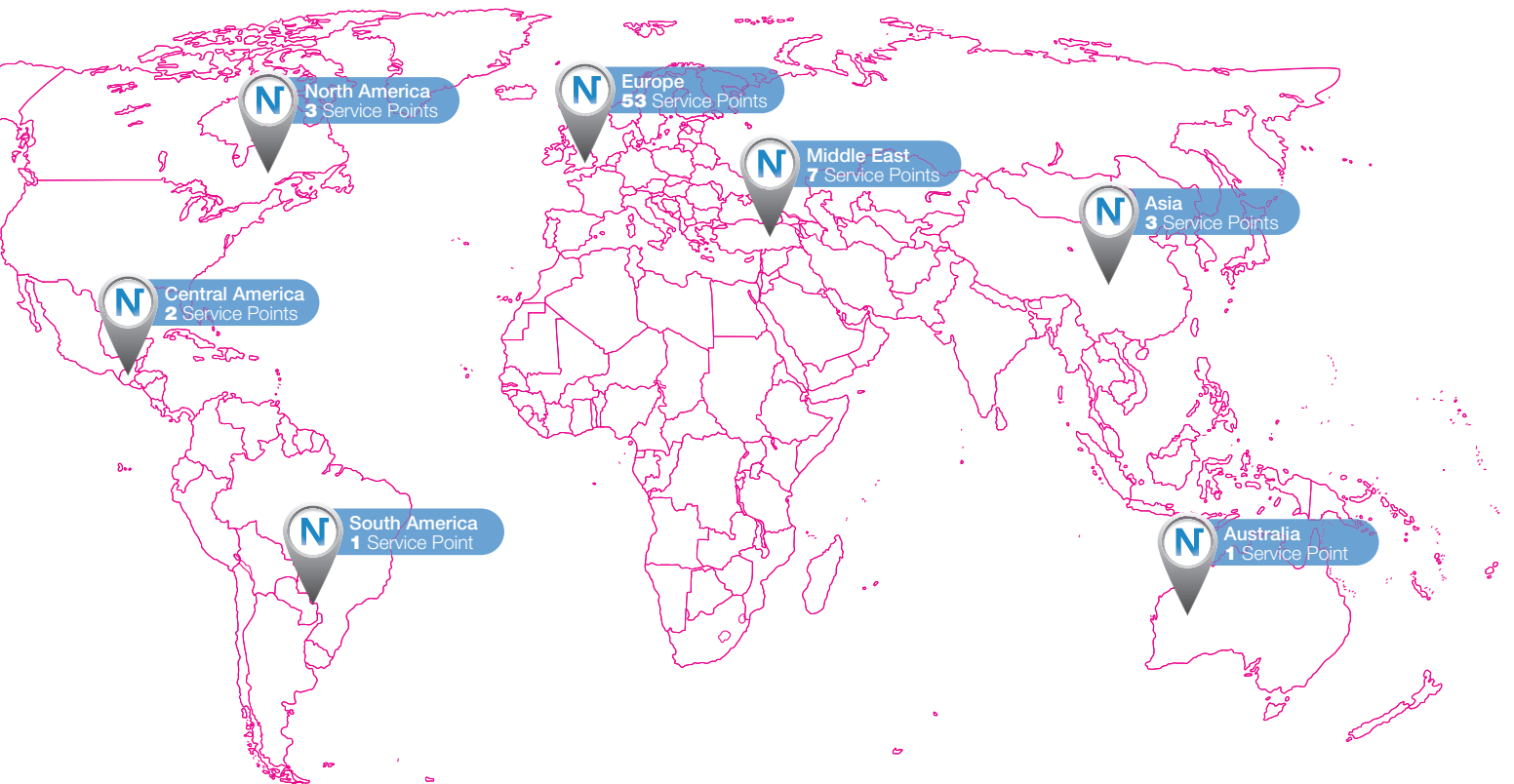


Knowledge
Remote

All OEM products are equipped with a VNC server enabling the customer to remotely connect to the panel via PC through Ethernet connection. This can be very useful if you need to make a deep debug of the project, because the VNC connection provides secure remote access to Naviop panels from any location. The pc must be programmed with Naviop softwares, CodeSys with all updated libraries and the right N-Design release. Then our technician can enter the system and perform a runtime analysis of what is running.

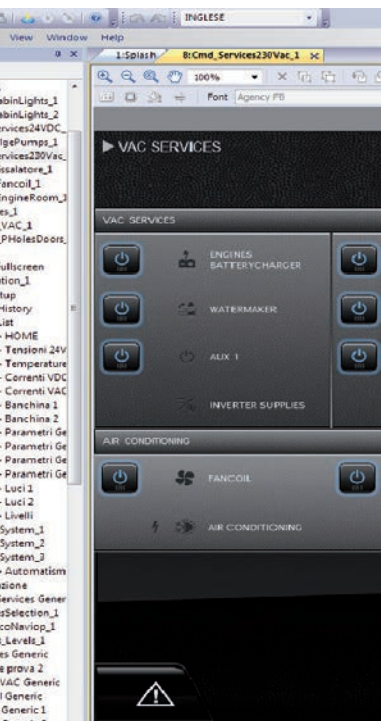


Our people are the key factor in our success: designers, technicians and engineers collaborate to the best uncompromised result.



2

Software

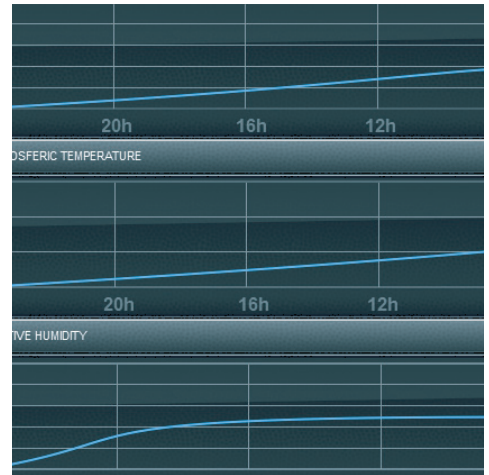


Software
N Design Ready
N Design In

N-Design Suite is the new Naviop software platform for creation and management of HMI applications. N-Design is based on a client-server multi-platform architecture, flexible and open. All OEM Products are fully compliant with Naviop N-Design.

Only with this graphic software it is possible to download the pages on the Naviop devices and use all variables coming from Naviop protocols, either those coming from Codesys and the ones from N-Design Suite.

The N-design software includes graphic libraries born from the Naviop's wide marine/industrial/automotive always updated experience, which enable to create ergonomic graphic interfaces suitable for any field of use.



Software
Codesys Ready
Codesys In

All Naviop OEM products can be programmed using CoDeSys programming language, one of the most powerful IEC 61131-3 programming tools for controllers. CoDeSys supports all five standard programming languages combining the power of advanced programming languages with the easy handling and operational functions of PLC programming systems.

The Codesys programming version installed on OEM products is fully integrated with Naviop N-Design software and is provided with several libraries of marine/industrial/automotive protocols, verified and always updated.

The system enables to easily and quickly share data and make high level automatisms between marine/industrial/automotive devices and the N-Design graphic software.

According to the type and model, each Naviop OEM product can be Ready to download the software or can include it directly (In).



Plus Software

Having expertise and know-how in software programming field and needing hardware products that can be easily programmed so to have the whole control on their project.

The Naviop OEM products are ready to be used with the Naviop marine design software which is equipped with a wide range of libraries of communication protocols, fully integrated with the Codesys programming tool. Those products include all Naviop potentialities and added values which make them the perfect devices for developers before, during and after the creation of their own system.



Software Apps



Software Libraries

Naviop provides a wide library of APPs, which can be downloaded on all Naviop OEM panels so to widen their functionalities with verified and stand alone programs. Naviop APPs are closed software developed by our engineers which can grant high performances in terms of graphics interface and number of data to control and show. Naviop Apps are suitable only for Naviop OEM panels range.

Naviop OEM products are suitable to be connected to all on-board parameters and technical devices thanks to wide libraries of flexible and reliable international marine and industrial standards (CANBUS, ETHERNET, RS232/422/485, USB and many more). From air conditioning systems to engines, from diesel generator units to stabilisation systems Naviop OEM products can control and manage any on-board technologies requiring advanced user interface.

All Naviop OEM products are suitable to be connected to other Naviop NMEA2000 items. The Naviop NMEA2000 products consist of a part of hardware and software that, combined into given configurations, allow to have products able to get into a NMEA2000 network to receive and share data. With N-Design software you can show NMEA2000 data to your system pages.^(*)

SERIAL

Asea AC300	Quick
Veco Climma	Masterwall
Condaria	Toshiba
Cantalupi	Humphree
Yachtica	Whisperpower
UDM35	
Eltek	
Delf	
IME	
Gavazzi	

ETHERNET

Autronica

CAN

Cummins QSB5.9
Hyundai S250S
Kohler
MAN 1800V8
Marinair
MTU
Onan
Speich
J1939
Webasto
Caterpillar





Thin shape, high brightness and modern design, to satisfy the most demanding and sophisticated customers.

3

Hardware



Hardware
HMI Screen Series
& DVI Unit

Naviop developed full displays series made up of an integrated solution able to fully manage and control all the displays' functionalities. Brightness and modern design meet all the needs of the most demanding and sophisticated customers.

The HMI screen series are approved and designed for marine applications and meet all requirements of ruggedness and reliability. Engineered with bonded glass touch screen to eliminate condensation, minimize glare, and provide superior viewing experience. In 7 different HMI series you'll certainly find the perfect match for your automation project.

Smart Crystal Series:
strictly complying with technical
requirements and a sleek design to
please the eye.



Plus Hardware

There are many ways to add that something to your project. That's the unique expertise of Naviop, our continuous dedication in research and constant development, beside countless project dealt with and made true. All those qualities are in each element you can use to **plus your project**.

+ Hardware
T- Box & PLC



PLC

The T-BOX PLC series is the best solution to safely dialogue with all on-board instruments: these devices are born from our extensive experience in protocol management. These has been developed to work and interface with the most widespread protocols, based on NMEA 0183, NMEA 2000, Canbus 2.0B, J1939, Serial 232, 422, 485, Ethernet, Modbus TCP and many more which are all widely tested and verified. The PLC units are specifically designed for use in marine environments. Their die cast aluminium fully waterproof enclosure, has excellent thermal transfer properties.

All the units have powerful and intuitive programming with the CoDeSys development tool based on IEC 61131-3 and can feature several functionalities, just like data acquisition and transfer, data log and T-BOX, alarms management and history and web server.

+ Hardware
Components



Components

Components and communication modules designed to allow the Naviop operating panels to easily connect to CAN network.

+ Hardware
Cables



Cables

A wide range of cables (CANbus, Serial, Ethernet and Supply) of different types and lengths, all featuring a high index of protection IP67. Supplied with pressure die-cast connector and feature predefined lengths. This choice has been made to simplify the connection on site and avoid possible errors in wiring during installation.



Key features of the Naviop OEM products are flexibility and reliability.

N-DESIGN Suite
Cod. **N-DESIGN**

The new Naviop graphic software platform for creation and management of HMI applications. N-Design is based on a client-server multi-platform architecture, flexible and open to download the pages on the Naviop devices. The N-design software, includes graphic libraries and protocols born from the Naviop's wide marine/industrial/automotive experience.



Composed by:
N-Design RUNTIME: an embedded HMI engine for Windows CE. The Naviop N-Design RUNTIME contains all HMI system's features.

N-Design CLIENT provides a live, interactive display of machine data from a remote location. Naviop N-Design CLIENT is virtual platform that runs on Windows PCs, web browsers and mobile devices.

N-Design DESIGN is an easy-to-use graphical editor for creating HMI pages. It contains a large symbols library as well as tag management, an alarm database, a schedule editor and all features needed to manage the device.

Available on:
SMART CRYSTAL Series
IRON Series
GENIUS GLASS Series
GENIUS Series
SHARP Series

Plus your project	
Software CodeSys Ready	<input type="checkbox"/>
Software CodeSys In	<input type="checkbox"/>
Software N-Design Ready	<input type="checkbox"/>
Software N-Design In	<input type="checkbox"/>
Naviop APPs Ready	<input type="checkbox"/>
NMEA2000 Ready	<input checked="" type="checkbox"/>
NMEA2000 In	<input type="checkbox"/>
Naviop Cables Ready	<input type="checkbox"/>
Remote Access Ready	<input checked="" type="checkbox"/>
Customer Care	<input checked="" type="checkbox"/>
Service Points Basic Access	<input checked="" type="checkbox"/>

CODESYS
Cod. **N-CODESYS**

One of the most powerful IEC 61131-3 programming tools for controllers, CoDeSys supports all five standard programming languages combining the power of advanced programming languages with the easy handling and operational functions of PLC programming systems. The Codesys programming version installed on OEM products is fully integrated with Naviop N-Design software.



Available on:
IRON Series
T-BOX Series
FOS Series

Software elements | Apps

CHARTS
Cod. **N-CHART-01**

Naviop CHARTS offers the integration between Naviop monitoring system and an Electronic Navigational Chart (ENC). The chartplotter displays the ENC along with the position, heading and speed of the ship, and it is fully integrated with Naviop Monitoring System Products. It can be installed as an optional App on many Naviop products.



Available on:
GENIUS Series:
GENIUS 12
GENIUS 13
GENIUS 14

GENIUS GLASS Series
GENIUS GLASS 7
GENIUS GLASS 15

Naviop EVOLIGHT
Naviop NRG
Naviop NRG PLUS
Naviop LAGOON
Naviop LAGOON PLUS

- Available features:**
- Tracks, routes and markers editing and archiving.
 - Route data: track length, minimum and average speed
 - Markers can be inserted on the track
 - Night visualization mode,
 - Visualization 'course up' and 'north up', zoom plus, zoom minus, track center (if in north up mode)

- safety depth
- multilanguage function

Plus your project	
Software CodeSys Ready	<input type="checkbox"/>
Software CodeSys In	<input type="checkbox"/>
Software N-Design Ready	<input type="checkbox"/>
Software N-Design In	<input type="checkbox"/>
Naviop APPs Ready	<input type="checkbox"/>
NMEA2000 Ready	<input type="checkbox"/>
NMEA2000 In	<input type="checkbox"/>
Naviop Cables Ready	<input type="checkbox"/>
Remote Access Ready	<input checked="" type="checkbox"/>
Customer Care	<input checked="" type="checkbox"/>
Service Points Basic Access	<input checked="" type="checkbox"/>

PDF READER

Cod. N-PDF-01

The Naviop PDF Reader is a small and fast optional App which allows the N-Design Suite to open, view, and print any PDF file.



Available on:

GENIUS GLASS Series
GENIUS GLASS 7
GENIUS GLASS 15

Plus your project

Software CodeSys Ready	
Software CodeSys In	
Software N-Design Ready	
Software N-Design In	
Naviop APPs Ready	
NMEA2000 Ready	
NMEA2000 In	
Naviop Cables Ready	
Remote Access Ready	✓
Customer Care	✓
Service Points Basic Access	✓

Software elements | Libraries

CONVERTER ASEA AC30

Cod. LIB-N01-001-x

It is possible to read electrical quantities and to show the busbar power plant status. It's able to command power transfer as well.

Model

Frequency converter: AC30 / AC36

Port

Serial

Library versions available

Medium
Large

Plus your project

Software CodeSys Ready	
Software CodeSys In	
Software N-Design Ready	
Software N-Design In	
Naviop APPs Ready	
NMEA2000 Ready	
NMEA2000 In	
Naviop Cables Ready	
Remote Access Ready	✓
Customer Care	✓
Service Points Basic Access	✓

AUTRONICA

Cod. LIB-N02-002-x

Firefight unit status, two loops and up to max 32 detectors per loop status are given. Detector status shows pre-alarm, alarm, fault and enable for each sensor.

Model

Fire fighting unit: AUTROPRIME

Port

Ethernet

Library versions available

Medium

CANTALUPI

Cod. LIB-N03-001-x

It's possible to set colour, brightness and to command ON / OFF each dimmer. Max 16 dimmer.

Model

Dimmer: CLL3-14-11/0148

Port

Serial

Library versions available

Medium
Large

CONDARIA

Cod. LIB-N04-003-x

The user can read and set fan speed, cabin temperature, heating and cooling, command fancoil ON / OFF. Max 32 Fancoils. The chiller can give the following data: sea water T (input & output), treated water T (input & output), compressor diagnostic messages and a plant synoptic. The user can set up the plant choosing the sea water pump, the treated water pump and compressors which should work.

Model

Fancoil: MBS6
Chiller: CO3

Port

Serial

Library versions available

Small
Medium
Large

CUMMINS

Cod. LIB-N05-002-x

It is possible to read all data necessary for a soft-dashboard. In addition the large size protocol allows to implement a complete engine diagnostic.

Model

Engine: QSB5.9

Port

CAN

Library versions available

Small
Medium

DEIF
Cod. LIB-N06-001-x

The protocol makes available all electric data coming from gensets and gives the user the control on power transfer and generators parallel.

Model
Generator paralleling and protection unit: PPU2

Port
Serial

Library versions available
Large

QUICK
Cod. LIB-N07-004-x

It is possible to set colour, brightness and to command ON / OFF each dimmer. Max 16 dimmer.

Model
Dimmer: LDIM-BUS-RGBW

Port
Serial

Library versions available
Medium

YACHTICA
Cod. LIB-N08-001-x

It is possible to set brightness and to command ON / OFF each dimmer. Max 16 dimmer

Model
Dimmer: MCI804L / DMK804L

Port
Serial

Library versions available
Medium

ELTEK
Cod. LIB-N09-004-x

Firefight unit status, two loops and up to max 32 detectors per loop status are given. Detector status shows pre-alarm, alarm, fault and enable for each sensor.

Model
Fire fighting unit: Delta OP

Port
Serial

Library versions available
Medium

GAVAZZI
Cod. LIB-N10-002-x

The protocol makes available the communication status of the device and the measure of current, voltage, etc..depending on the device config.

Model
Multimeter: UDM35

Port
Serial

Library versions available
Small

GAVAZZI
Cod. LIB-N11-005-x

The protocol makes available the communication status of the device and the essential measures of electrical quantities for single phase and three phase AC systems. The large protocol version gives data for a more accurate analysis of the network.

Model
Multimeter: WM12/14

Port
Serial

Library versions available
Small
Medium
Large

Plus your project	
Software CodeSys <i>Ready</i>	<input type="checkbox"/>
Software CodeSys <i>In</i>	<input type="checkbox"/>
Software N-Design <i>Ready</i>	<input type="checkbox"/>
Software N-Design <i>In</i>	<input type="checkbox"/>
Naviop APPs <i>Ready</i>	<input type="checkbox"/>
NMEA2000 <i>Ready</i>	<input type="checkbox"/>
NMEA2000 <i>In</i>	<input type="checkbox"/>
Naviop Cables <i>Ready</i>	<input type="checkbox"/>
Remote Access <i>Ready</i>	<input checked="" type="checkbox"/>
Customer Care	<input checked="" type="checkbox"/>
Service Points <i>Basic Access</i>	<input checked="" type="checkbox"/>

HUMPHREE

Cod. LIB-N12-002-x

The user can read (small size prot.) and command (medium and large size prot.) the trim control device. The large size prot. makes available some useful feedbacks.

Model
Interceptor: CONTROL PANEL CP202

Port
Serial

Library versions available
Small
Medium
Large

HYUNDAI

Cod. LIB-N13-001-x

It is possible to read the essential engine data necessary for a navigation.

Model
Engine: S250S

Port
CAN

Library versions available
Small

IME

Cod. LIB-N14-001-x

The protocol makes available the communication status of the device and the complete data structure of electrical quantities for single and three phase AC systems for an accurate analysis of the network.

Model
Multimeter: NEMO 96HD

Port
Serial

Library versions available
Large

KOHLER

Cod. LIB-N15-003-x

It is possible to read all generator data necessary for a navigation. In addition the large size protocol allows to implement the generator diagnostic.

Model
Generator: 8-32EOZD, 6.5-27EFOZD, 40-55EFOZD

Port
CAN

Library versions available
Small
Medium
Large

MAN

Cod. LIB-N16-004-x

It is possible to read all engine data necessary for a navigation. In addition the large size protocol allows to implement a complete engine diagnostic.

Model
Engine: R6 730-800, V8 900-1200, V12 1360-1800

Port
CAN

Library versions available
Small
Medium

MARINEAIR

Cod. LIB-N17-002-x

The user can read and set fan speed, cabin temperature, heating and cooling, command fancoil ON / OFF. Max 32 fancoils.

Model
Fancoil: MicroAir 0x314

Port
CAN

Library versions available
Medium

Plus your project	
Software CodeSys <i>Ready</i>	<input type="checkbox"/>
Software CodeSys <i>In</i>	<input type="checkbox"/>
Software N-Design <i>Ready</i>	<input type="checkbox"/>
Software N-Design <i>In</i>	<input type="checkbox"/>
Naviop APPs <i>Ready</i>	<input type="checkbox"/>
NMEA2000 <i>Ready</i>	<input type="checkbox"/>
NMEA2000 <i>In</i>	<input type="checkbox"/>
Naviop Cables <i>Ready</i>	<input type="checkbox"/>
Remote Access <i>Ready</i>	<input checked="" type="checkbox"/>
Customer Care	<input checked="" type="checkbox"/>
Service Points <i>Basic Access</i>	<input checked="" type="checkbox"/>

MASTERVOLT
Cod. LIB-N18-008-x

The essential data of a battery charger (current, voltage, status, battery temperature) are made available over the bus.

Model
Battery Charger: Mass Charger 24 - 25/50/75/100
Charge Master 24-30/60 12-25

Port
Serial

Library versions available
Small
Medium

MTU
Cod. LIB-N19-005-x

It is possible to read all engine data necessary for a navigation. In addition the large size protocol allows to implement a complete engine diagnostic.

Model
Engine: SMART LINE, SERIES 2000

Port
CAN

Library versions available
Small
Medium

CATERPILLAR
Cod. LIB-N20-002-x

It is possible to read many common PGNs and manage data necessary for a navigation.

Port
CAN

Library versions available
Small

ONAN
Cod. LIB-N21-007-x

It is possible to read all generator data necessary for navigation. In addition the large size protocol allows to implement the generator diagnostic.

Model
Generator:
MDKB-H/K/LL/N/P/R/S/T/U
MGKB-C/D,
MDDC-A/B/C/D/F/G/H/J

Port
CAN

Library versions available
Small
Medium
Large

SPEICH
Cod. LIB-N22-003-x

It makes available all variables and command to replicate a complete virtual control panel for Speich wipers.

Model
Wiper controller: DCS Controller

Port
CAN

Library versions available
Medium

TOSHIBA
Cod. LIB-N23-002-x

The user can command the inverter ON / OFF, read and set the frequency and the direction of rotation. Max 6 Inverters.

Model
Inverter: VF-FS1, VF-FS11

Port
Serial

Library versions available
Small
Medium

Plus your project

Software CodeSys	Ready	<input type="checkbox"/>
Software CodeSys	In	<input type="checkbox"/>
Software N-Design	Ready	<input type="checkbox"/>
Software N-Design	In	<input type="checkbox"/>
Naviop APPs	Ready	<input type="checkbox"/>
NMEA2000	Ready	<input type="checkbox"/>
NMEA2000	In	<input type="checkbox"/>
Naviop Cables	Ready	<input type="checkbox"/>
Remote Access	Ready	<input checked="" type="checkbox"/>
Customer Care		<input checked="" type="checkbox"/>
Service Points	Basic Access	<input checked="" type="checkbox"/>

VECO CLIMMA
Cod. LIB-N24-001-x

The user can read and set fan speed, cabin temperature, heating and cooling, command fancoil ON / OFF. Max 32 fancoils.

Model
Fancoil: VEGA MkII

Port
Serial

Library versions available
Medium

WEBASTO
Cod. LIB-N25-002-x

The user can read and set fan speed, cabin temperature, dehumidification cycles, command fancoil ON / OFF. Max 32 fancoils. The chiller can give the following data: treated water T (input & output), compressor status and working mode.

Model
Fancoil: Cabin V3
Chiller: TECC

Port
CAN

Library versions available
Small
Medium
Large

WHISPERPOWER
Cod. LIB-N26-005-x

It is possible to read all generator data necessary for navigation. In addition the large size protocol allows to implement a complete generator diagnostic.

Model
Whisper Generator 50Hz:
3.5/6/8/10/16
Whisper Generator 50Hz Ultra:
6/8/10/12/16/25
12-3/16-3/25-3
Whisper Generator 60Hz:
6/8/11/16
Whisper Generator 60Hz Ultra:
7/9.5/11/12.5/15/20/30
15-3/20-3/30-3

Port
Serial

Library versions available
Small
Medium
Large

J1939
Cod. LIB-N27-00x

J1939 is the vehicle bus standard used for communication and diagnostics among vehicle components and runs over CANbus network. Naviop libraries read many common PGNs and manage data from the main engines and generators brands.

Port
CAN

Library versions available
Small
Medium

Plus your project

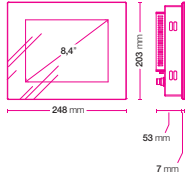
Software CodeSys Ready	<input type="checkbox"/>
Software CodeSys In	<input type="checkbox"/>
Software N-Design Ready	<input type="checkbox"/>
Software N-Design In	<input type="checkbox"/>
Naviop APPs Ready	<input type="checkbox"/>
NMEA2000 Ready	<input type="checkbox"/>
NMEA2000 In	<input type="checkbox"/>
Naviop Cables Ready	<input type="checkbox"/>
Remote Access Ready	<input checked="" type="checkbox"/>
Customer Care	<input checked="" type="checkbox"/>
Service Points Basic Access	<input checked="" type="checkbox"/>

(^A) The Naviop libraries are the result of the work of our R&D department and of our expertise. Their proper functioning is linked to software created by third parties so Naviop is not responsible in case of malfunctioning or misuse. Therefore the possibility of the relative interfacing must be verified with the Naviop staff and possibly with the producer of the device that has to be interfaced, to obtain an authorization, if required, which will be a customer duty.

Smart Crystal 8 Code **SMTRCRY8**

A true glass 8.4" touch display made up of an integrated solution able to fully manage and control all the displays' functionalities.

- Accessories:** Cod. C-23723 Supply M12/5 poles F radial cable
Cod. C-24437 Y M12/8 poles radial 2mt USB cable
Cod. C-DV12M DVI cable
Cod. C-22227 Ethernet int. M12/8 poles F radial cable
Cod. NA04-0002 T-BOX PLC unit



Display	Type: TFT
Resolution: 640 x 480 pixel	Active display area: 8.4" diagonal
Colors: 64K	Backlight: CCFL
Brightness: 600 cd/m2 typ.	Dimming: Yes
Front panel	Design: true glass
Touch screen: Projective capacitive	User LEDs: 1 (rear side)
OSD: 3 (front side)	Power: ON/OFF button
Interfaces	USB Host port: 1 2.0 version
USB Device port: 1 2.0 version	DVI ports: 1 LVDS single link
DVI ports: 1 DVI-I single link (Max. SXGA @60Hz 1280 x 1024)	PAL/NTSC ports: 2

Ratings	Power supply (nom): 9-32 Vdc
Current consumption: max 0,6A @24V	Fuse: Automatic
Environmental conditions	Operational temp.: -10 ÷ +55°C (vertical mounting)
Storage temp.: -30°C ÷ +85°C	Operative and storage humidity: 5 ÷ 85% RH (not condensing)
Protection class: IP65 (front panel)	Dimensions
Faceplate (LxH): 248 x 203 mm	Cutout: 234 x 189 mm
Mounting depth (D+T): 53 + 7 mm	(without cables, +1 mm with gaskets)
Weight: 2,6 Kg	

Plus your project

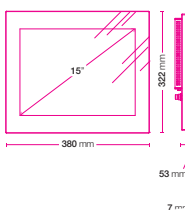
Software CodeSys Ready	<input type="checkbox"/>
Software CodeSys In	<input type="checkbox"/>
Software N-Design Ready	<input type="checkbox"/>
Software N-Design In	<input checked="" type="checkbox"/>
Naviop APPs Ready	<input checked="" type="checkbox"/>
NMEA2000 Ready	<input type="checkbox"/>
NMEA2000 In	<input type="checkbox"/>
Naviop Cables Ready	<input checked="" type="checkbox"/>
Remote Access Ready	<input checked="" type="checkbox"/>
Customer Care	<input checked="" type="checkbox"/>
Service Points Basic Access	<input checked="" type="checkbox"/>



Smart Crystal 15 Code **SMTRCRY15**

A true glass touch 15" display with high brightness screen technology for superior viewing experience.

- Accessories:** Cod. C-23723 Supply M12/5 poles F radial cable
Cod. C-24437 Y M12/8 poles radial 2mt USB cable
Cod. C-DV12M DVI cable
Cod. C-22227 Ethernet int. M12/8 poles F radial cable
Cod. NA04-0002 T-BOX PLC unit



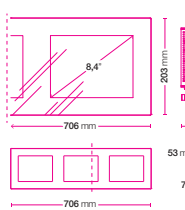
Display	Type: TFT
Resolution: 1024 x 768 pixel	Active display area: 15" diagonal
Colors: 64K	Backlight: CCFL
Brightness: 1000 cd/m2 typ.	Dimming: Yes
Front panel	Design: true glass
Touch screen: Projective capacitive	User LEDs: 1 (rear side)
OSD: 3 (front side)	Power: ON/OFF button
Interfaces	USB Host port: 1 2.0 version
USB Device port: 1 2.0 version	DVI ports: 1 LVDS single link
DVI ports: 1 DVI-I single link (Max. SXGA @60Hz 1280 x 1024)	PAL/NTSC ports: 2

Ratings	Power supply (nom): 9-32 Vdc
Current consumption: max 1,5A @24V	Fuse: Automatic
Environmental conditions	Operational temp.: -10 ÷ +55°C (vertical mounting)
Storage temp.: -30°C ÷ +85°C	Operative and storage humidity: 5 ÷ 85% RH (not condensing)
Protection class: IP65 (front panel)	Dimensions
Faceplate (LxH): 380 x 322 mm	Cutout: 366 x 308 mm
Mounting depth (D+T): 53 + 7 mm	(without cables, +1 mm with gaskets)
Weight: 6,5 Kg	

Smart Crystal 24 Code **SMTRCRY24**

3 true glass seamless touch 8.4" displays with high brightness screen technology.

- Accessories:** Cod. C-23723 Supply M12/5 poles F radial cable
Cod. C-24437 Y M12/8 poles radial 2mt USB cable
Cod. C-DV12M DVI cable
Cod. C-22227 Ethernet int. M12/8 poles F radial cable
Cod. NA04-0002 T-BOX PLC unit
Cod. NA20N0001 SHARP VIDEO



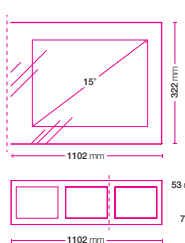
Display (X3)	Type: TFT
Resolution: 640 x 480 pixel	Active display area: 8.4" diagonal
Colors: 64K	Backlight: CCFL
Brightness: 600 cd/m2 typ.	Dimming: Yes
Front panel	Design: true glass
Touch screen: Projective capacitive	User LEDs: 3 (rear side)
OSD: 3 (each display)	Power: ON/OFF button: 1 (each display)
Interfaces	USB Host port: 3 2.0 version
USB Device port: 3 2.0 version	DVI ports: 5 LVDS single link
DVI ports: 1 DVI-I single link (Max. SXGA @60Hz 1280 x 1024)	PAL/NTSC ports: 2

Ratings	Power supply (nom): 9-32 Vdc
Current consumption: max 0,6A @24V	Fuse: Automatic
Environmental conditions	Operational temp.: -10 ÷ +55°C (vertical mounting)
Storage temp.: -30°C ÷ +85°C	Operative and storage humidity: 5 ÷ 85% RH (not condensing)
Protection class: IP65 (front panel)	Dimensions
Faceplate (LxH): 706 x 203 mm	Cutout: 692 x 189 mm
Mounting depth (D+T): 53 + 7 mm	(without cables, +1 mm with gaskets)
Weight: 8 Kg	

Smart Crystal 45 Code **SMTRCRY45**

3 true glass seamless touch 15" displays featuring bright colours, wide viewing angles and excellent contrast.

- Accessories:** Cod. C-23723 Supply M12/5 poles F radial cable
Cod. C-24437 Y M12/8 poles radial 2mt USB cable
Cod. C-DV12M DVI cable
Cod. C-22227 Ethernet int. M12/8 poles F radial cable
Cod. NA04-0002 T-BOX PLC unit
Cod. NA20N0001 SHARP VIDEO



Display (X3)	Type: TFT
Resolution: 1024 x 768 pixel	Active display area: 15" diagonal
Colors: 64K	Backlight: CCFL
Brightness: 1000 cd/m2 typ.	Dimming: Yes
Front panel	Design: true glass
Touch screen: Projective capacitive	User LEDs: 3 (rear side)
OSD: 3 (each display)	Power: ON/OFF button: 1 (each display)
Interfaces	USB Host port: 3 2.0 version
USB Device port: 3 2.0 version	DVI ports: 5 LVDS single link
DVI ports: 1 DVI-I single link (Max. SXGA @60Hz 1280 x 1024)	PAL/NTSC ports: 2

Ratings	Power supply (nom): 9-32 Vdc
Current consumption: max 4,5A @24V	Fuse: Automatic
Environmental conditions	Operational temp.: -10 ÷ +55°C (vertical mounting)
Storage temp.: -30°C ÷ +85°C	Operative and storage humidity: 5 ÷ 85% RH (not condensing)
Protection class: IP65 (front panel)	Dimensions
Faceplate (LxH): 1102 x 322 mm	Cutout: 1088 x 308 mm
Mounting depth (D+T): 53 + 7 mm	(without cables, +1 mm with gaskets)
Weight: 19,5 Kg	

Iron 5

Code **NP-XP570-NA03**

Its die cast aluminium enclosure and its protection class make this panel suitable for 'hard' environments.

Accessories: Cod. C-22201 Headed CAN M12-8 POLES female radial 0.5/2mt drop
Cod. C-24437 Supply M12/8 poles F radial cable
Cod. C-22227 Ethernet int. M12/8 poles F radial cable
Cod. C-20663 RS232/485 serial M12-8 POLES female radial cable



Display

Type: TFT
Resolution: 640 x 480 pixel
Active display area: 5.7" diagonal
Colors: 64K
Backlight: CCFL 50000h
Brightness: 350 cd/m2 typ.
Dimming: Yes

Front panel

Design: polycarbonate
Touch screen: Analog resistive

Communication ports

RS-232 port: 1
RS-422/485 port: 1
CAN ports: 2
Ethernet port: 1 (10/110 Mbit)

Ratings

Power supply (nom): 18-30 Vdc
Current consumption: max 1A @24V
Fuse: Automatic

Environmental conditions

Operational temp.: -10 ÷ +60°C (vertical mounting)
-30°C ÷ +85°C
Storage temp.: Operative and storage humidity: 5 ÷ 85% RH (not condensing)
Protection class: IP67 (front panel) IP66 (rear)

Dimensions

Faceplate (LxH): 189 x 149 mm
Cutout: 176 x 136 mm
Mounting depth (D+T): 83,5 + 7,5 mm (without cables, +1 mm with gaskets)
Weight: 1,9 Kg

Plus your project

Software CodeSys Ready	<input type="checkbox"/>
Software CodeSys In	<input checked="" type="checkbox"/>
Software N-Design Ready	<input type="checkbox"/>
Software N-Design In	<input type="checkbox"/>
Naviop APPs Ready	<input type="checkbox"/>
NMEA2000 Ready	<input type="checkbox"/>
NMEA2000 In	<input type="checkbox"/>
Naviop Cables Ready	<input checked="" type="checkbox"/>
Remote Access Ready	<input type="checkbox"/>
Customer Care	<input checked="" type="checkbox"/>
Service Points Basic Access	<input checked="" type="checkbox"/>

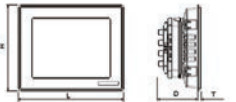


Iron 8

Code **NP-eTOP20-NA06-1**

High mechanical sturdiness and a high degree of protection IP67 with 5 communication ports so to withstand the most extreme applications.

Accessories: Cod. C-22201 Headed CAN M12-8 POLES female radial 0.5/2mt drop
Cod. C-24437 Supply M12/8 poles F radial cable
Cod. C-22227 Ethernet int. M12/8 poles F radial cable
Cod. C-20663 RS232/485 serial M12-8 POLES female radial cable



Display

Type: TFT
Resolution: 640 x 480 pixel
Active display area: 8.4" diagonal
Colors: 64K
Backlight: CCFL 50000h
Brightness: 400 cd/m2 typ.
Dimming: Yes

Front panel

Design: polycarbonate
Touch screen: Analog resistive

Communication ports

RS-232 port: 1
RS-422/485 port: 1
CAN ports: 2
Ethernet port: 1 (10/110 Mbit)

Ratings

Power supply (nom): 18-30 Vdc
Current consumption: max 1A @24V
Fuse: Automatic

Environmental conditions

Operational temp.: -10 ÷ +60°C (vertical mounting)
-30°C ÷ +85°C
Storage temp.: Operative and storage humidity: 5 ÷ 85% RH (not condensing)
Protection class: IP67 (front panel) IP66 (rear)

Dimensions

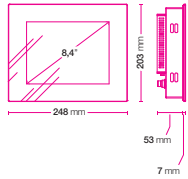
Faceplate (LxH): 234 x 189 mm
Cutout: 221 x 176 mm
Mounting depth (D+T): 88,5 + 7,5 mm (without cables, +1 mm with gaskets)
Weight: 1,9 Kg

Crystal 8

Code **NA24N0001**

Designed specifically for marine environments, it combines true glass touch 8.4" display with high brightness screen technology.

- Accessories:** Cod. C-23723 Supply M12/5 poles F radial cable
Cod. C-24437 Y M12/8 poles radial 2mt USB cable
Cod. C-DV12M DVI cable
Cod. C-22227 Ethernet int. M12/8 poles F radial cable
Cod. NA04-0002 T-BOX PLC unit
Cod. NA20N0001 SHARP VIDEO



Display

Type: TFT
Resolution: 640 x 480 pixel
Active display area: 8.4" diagonal
Colors: 64K
Backlight: CCFL
Brightness: 600 cd/m2 typ.
Dimming: Yes

Front panel

Design: true glass
Touch screen: Projective capacitive
User LEDs: 1 (rear side)
OSD: 3 (front side)
Power: ON/OFF button

Interfaces

USB Host port: 1 2.0 version
USB Device port: 1 2.0 version
DVI-D ports: 2 LVDS single link

Ratings

Power supply (nom): 9-32 Vdc
Current consumption: max 0,6A @24V
Fuse: Automatic

Environmental conditions

Operational temp.: -10 ÷ +55°C (vertical mounting)
-30°C ÷ +85°C
Storage temp.: Operative and storage humidity: 5 ÷ 85% RH (not condensing)
Protection class: IP65 (front panel)

Dimensions

Faceplate (LxH): 248 x 203 mm
Cutout: 234 x 189 mm
Mounting depth (D+T): 53 + 7 mm (without cables, +1 mm with gaskets)
Weight: 2,6 Kg

Plus your project

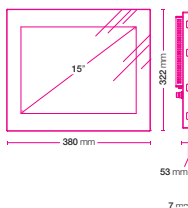
Software CodeSys Ready	
Software CodeSys In	
Software N-Design Ready	✓
Software N-Design In	
Naviop APPs Ready	
NMEA2000 Ready	
NMEA2000 In	
Naviop Cables Ready	✓
Remote Access Ready	
Customer Care	✓
Service Points Basic Access	✓

Crystal 15

Code **NA21N0001**

Newest generation of optically bonded capacitive touchscreen with excellent contrast and a wide viewing angle in a valuable modern and high-tech design.

- Accessories:** Cod. C-23723 Supply M12/5 poles F radial cable
Cod. C-24437 Y M12/8 poles radial 2mt USB cable
Cod. C-DV12M DVI cable
Cod. C-22227 Ethernet int. M12/8 poles F radial cable
Cod. NA04-0002 T-BOX PLC unit
Cod. NA20N0001 SHARP VIDEO



Display

Type: TFT
Resolution: 1024 x 768 pixel
Active display area: 15" diagonal
Colors: 64K
Backlight: CCFL
Brightness: 1000 cd/m2 typ.
Dimming: Yes

Front panel

Design: true glass
Touch screen: Projective capacitive
User LEDs: 1 (rear side)
OSD: 3 (front side)
Power: ON/OFF button

Interfaces

USB Host port: 1 2.0 version
USB Device port: 1 2.0 version
DVI-D ports: 2 LVDS single link

Ratings

Power supply (nom): 9-32 Vdc
Current consumption: max 1,5A @24V
Fuse: Automatic

Environmental conditions

Operational temp.: -10 ÷ +55°C (vertical mounting)
-30°C ÷ +85°C
Storage temp.: Operative and storage humidity: 5 ÷ 85% RH (not condensing)
Protection class: IP65 (front panel)

Dimensions

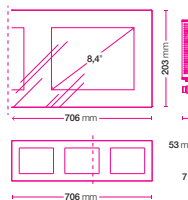
Faceplate (LxH): 380 x 322 mm
Cutout: 366 x 308 mm
Mounting depth (D+T): 53 + 7 mm (without cables, +1 mm with gaskets)
Weight: 6,5 Kg

Crystal 24

Code **NA25N0001**

Integrated bridge designed specifically for use in marine environments, it combines seamless 3 true glass touch 8.4" displays with high brightness screen technology for unmatched daylight viewable colour.

- Accessories:** Cod. C-23723 Supply M12/5 poles F radial cable
Cod. C-24437 Y M12/8 poles radial 2mt USB cable
Cod. C-DV12M DVI cable
Cod. C-22227 Ethernet int. M12/8 poles F radial cable
Cod. NA20N0001 SHARP VIDEO



Display

Type: TFT
Resolution: 640 x 480 pixel
Active display area: 8.4" diagonal
Colors: 64K
Backlight: CCFL
Brightness: 600 cd/m2 typ.
Dimming: Yes

Front panel

Design: true glass
Touch screen: Projective capacitive
User LEDs: 3 (rear side)
OSD: 3 (each display)
ON/OFF button: 1 (each display)

Interfaces

USB Host port: 3 2.0 version
USB Device port: 3 2.0 version
DVI-D ports: 6 LVDS single link

Ratings

Power supply (nom): 9-32 Vdc
Current consumption: max 1,8A @24V
Fuse: Automatic

Environmental conditions

Operational temp.: -10 ÷ +55°C (vertical mounting)
-30°C ÷ +85°C
Storage temp.: Operative and storage humidity: 5 ÷ 85% RH (not condensing)
Protection class: IP65 (front panel)

Dimensions

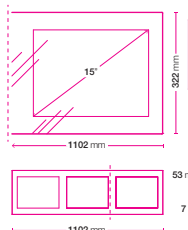
Faceplate (LxH): 706 x 203 mm
Cutout: 692 x 189 mm
Mounting depth (D+T): 53 + 7 mm (without cables, +1 mm with gaskets)
Weight: 8 Kg

Crystal 45

Code **NA23N0001**

3 high-tech and elegant touch screen displays integrated in one crystal console. It is designed as the central control and visualization platform, where all data existing in the system are processed and visualised.

- Accessories:** Cod. C-23723 Supply M12/5 poles F radial cable
Cod. C-24437 Y M12/8 poles radial 2mt USB cable
Cod. C-DV12M DVI cable
Cod. C-22227 Ethernet int. M12/8 poles F radial cable
Cod. NA20N0001 SHARP VIDEO



Display

Type: TFT
Resolution: 1024 x 768 pixel
Active display area: 15" diagonal
Colors: 64K
Backlight: CCFL
Brightness: 1000 cd/m2 typ.
Dimming: Yes

Front panel

Design: true glass
Touch screen: Projective capacitive
User LEDs: 3 (rear side)
OSD: 3 (each display)
ON/OFF button: 1 (each display)

Interfaces

USB Host port: 3 2.0 version
USB Device port: 3 2.0 version
DVI-D ports: 6 LVDS single link

Ratings

Power supply (nom): 9-32 Vdc
Current consumption: max 4,5A @24V
Fuse: Automatic

Environmental conditions

Operational temp.: -10 ÷ +55°C (vertical mounting)
-30°C ÷ +85°C
Storage temp.: Operative and storage humidity: 5 ÷ 85% RH (not condensing)
Protection class: IP65 (front panel)

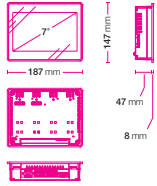
Dimensions

Faceplate (LxH): 1102 x 322 mm
Cutout: 1088 x 308 mm
Mounting depth (D+T): 59,5 + 7 mm (without cables, +1 mm with gaskets)
Weight: 19,5 Kg

Genius Glass 7 Code **GENIUS7G**

A very high bright 7" TFT widescreen (16:9) glass display with LED backlight and anti-Reflective glass surface treatment. NMEA2000 and NavioP Charts embedded.

Accessories: Cod. C-26515 Headed drop can
DB9 M cable
Cod. C-22248 Ethernet FL CAT6
10/15/20m patch cable
Cod. FOS01 FOS GENIUS Series
Cod. NA04-0002 T-BOX PLC unit



Display

Type: TFT
Resolution: 800 x 480 pixel
Active display area: 7" diagonal
Colors: 64K
Backlight: White LED
Brightness: 400 cd/m2 typ.
Dimming: Yes

Front panel

Design: true glass
Touch screen: Projective capacitive

Interfaces

USB Host port: 1 x 2.0/1.1
1 x 1.1
2 10/100 Mbit (integr. switch)
Ethernet port: 1RS232/422/485 (sw configurable)
2 optional plugin
Serial port: 2 optional plugin
Expansion slot: 1 SD card slot
Memory card: 1 SD card slot

Ratings

Power supply (nom): 9-32 Vdc
Current consumption: max 0,8A @24V
Fuse: Automatic

Environmental conditions

Operational temp.: -20 ÷ +60°C (vertical mounting)
-40°C ÷ +85°C
Storage temp.: Operative and storage humidity: 5 ÷ 85% RH (not condensing)
IP69K (front)
IP20 (rear)
Protection class:

Dimensions

Faceplate (LxH): 187 x 147 mm
Cutout: 176 x 136 mm
Mounting depth (D+T): 47 + 8 mm (without cables, +1 mm with gaskets)
Weight: 1,0 Kg

Plus your project

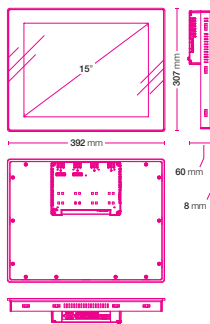
Software CodeSys Ready	✓
Software CodeSys In	
Software N-Design Ready	
Software N-Design In	✓
NavioP APPs Ready	✓
NMEA2000 Ready	✓
NMEA2000 In	
Navio Cables Ready	✓
Remote Access Ready	✓
Customer Care	✓
Service Points Basic Access	✓



Genius Glass 15 Code **GENIUS15G**

A very high bright 15" TFT glass display with touch screen with Anti-Reflective glass surface treatment for unmatched daylight view.

Accessories: Cod. C-26515 Headed drop can
DB9 M cable
Cod. C-22248 Ethernet FL CAT6
10/15/20m patch cable
Cod. FOS01 FOS GENIUS Series
Cod. NA04-0002 T-BOX PLC unit



Display

Type: TFT
Resolution: 1024 x 768 pixel
Active display area: 15" diagonal
Colors: 64K
Backlight: White LED
Brightness: 1500 cd/m2 typ.
Dimming: Yes

Front panel

Design: true glass
Touch screen: Projective capacitive

Interfaces

USB Host port: 2 2.0/1.1 version
Ethernet port: 2 10/100 Mbit (integr. switch)
1 RS232/422/485 (sw configurable)
Serial port: 2 optional plugin
Expansion slot: 1 SD card slot
Memory card: 1 SD card slot

Ratings

Power supply (nom): 9-32 Vdc
Current consumption: max 2A @24V
Fuse: Automatic

Environmental conditions

Operational temp.: -20 ÷ +60°C (vertical mounting)
-40°C ÷ +85°C
Storage temp.: Operative and storage humidity: 5 ÷ 85% RH (not condensing)
IP69K (front)
IP20 (rear)
Protection class:

Dimensions

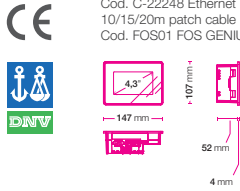
Faceplate (LxH): 392 x 307 mm
Cutout: 381 x 296 mm
Mounting depth (D+T): 56 + 0,5 mm (without cables, +1 mm with gaskets)
Weight: 3,5 Kg

Genius 4

Code **GENIUS4P**

A 4.3" TFT widescreen (16:9) panel with LED backlight and a polycarbonate touch screen. The built-in dual 100Mb Ethernet interfaces enhance its communication capability for easy integration with small systems.

Accessories: Cod. C-26515 Headed drop can DB9 M cable
Cod. C-22248 Ethernet FL CAT6 10/15/20m patch cable
Cod. FOS01 FOS GENIUS Series



Display

Type: TFT
Resolution: 480 x 270 pixel
Active display area: 4.3" diagonal
Colors: 64K
Backlight: LED
Brightness: 150 cd/m2 typ.
Dimming: Yes

Front panel

Design: polycarbonate
Touch screen: Analog resistive
User LEDs: 1 (dual color)

Interfaces

USB Host port: 1 2.0 version
Ethernet port: 2 10/100 Mbit (integr. switch)
Serial port: 1 (RS232/422/485, sw configurable)
Expansion slot: 1 optional plugin
Memory card: 1 SD card slot

Ratings

Power supply (nom): 9-32 Vdc
Current consumption: max 0,4A @24V
Fuse: Automatic

Environmental conditions

Operational temp.: 0 ÷ +50°C (vertical mounting)
-20°C ÷ +70°C
Storage temp.: Operative and storage humidity: 5 ÷ 85% RH (not condensing)
Protection class: IP66 (front panel) IP20 (rear panel)

Dimensions

Faceplate (LxH): 147 x 107 mm
Cutout: 136 x 96 mm
Mounting depth (D+T): 56 + 4 mm (without cables, +1 mm with gaskets)
Weight: 1,0 Kg

Plus your project

Software CodeSys Ready	✓
Software CodeSys In	
Software N-Design Ready	
Software N-Design In	✓
Naviop APPs Ready	✓
NMEA2000 Ready	✓
NMEA2000 In	
Naviop Cables Ready	✓
Remote Access Ready	✓
Customer Care	✓
Service Points Basic Access	✓

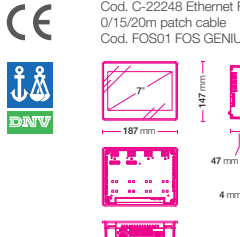


Genius 7

Code **GENIUS7P**

A very high bright 7" TFT widescreen (16:9) display with LED backlight. A polycarbonate touch screen which is perfect for whatever applications.

Accessories: Cod. C-26515 Headed drop can DB9 M cable
Cod. C-22248 Ethernet FL CAT6 0/15/20m patch cable
Cod. FOS01 FOS GENIUS Series



Display

Type: TFT
Resolution: 800 x 480 pixel
Active display area: 7" diagonal
Colors: 64K
Backlight: LED
Brightness: 300 cd/m2 typ.
Dimming: Yes

Front panel

Design: polycarbonate
Touch screen: Analog resistive
User LEDs: 1 (dual color)

Interfaces

USB Host port: 1 x 2.0/1.1
Ethernet port: 2 10/100 Mbit (integr. switch)
Serial port: 1 RS232/422/485 (sw configurable)
Expansion slot: 2 optional plugin
Memory card: 1 SD card slot

Ratings

Power supply (nom): 9-32 Vdc
Current consumption: max 0,7A @24V
Fuse: Automatic

Environmental conditions

Operational temp.: 0 ÷ +50°C (vertical mounting)
-20°C ÷ +70°C
Storage temp.: Operative and storage humidity: 5 ÷ 85% RH (not condensing)
Protection class: IP66 (front panel) IP20 (rear panel)

Dimensions

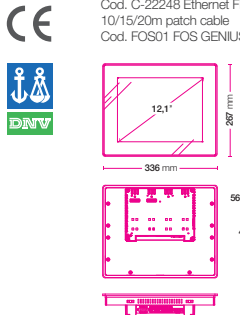
Faceplate (LxH): 187 x 147 mm
Cutout: 176 x 136 mm
Mounting depth (D+T): 47 + 4 mm (without cables, +1 mm with gaskets)
Weight: 1,0 Kg

Genius 12

Code **GENIUS12P**

Designed for harsh environment, it features a very high bright 10" TFT polycarbonate display with LED backlight and full vector graphic capabilities. The perfect solution for every sailing conditions.

Accessories: Cod. C-26515 Headed drop can DB9 M cable
Cod. C-22248 Ethernet FL CAT6 10/15/20m patch cable
Cod. FOS01 FOS GENIUS Series



Display

Type: TFT
Resolution: 800 x 600 pixel
Active display area: 12" diagonal
Colors: 64K
Backlight: LED
Brightness: 250 cd/m2 typ.
Dimming: Yes

Front panel

Design: polycarbonate
Touch screen: Analog resistive
User LEDs: 1 (dual color)

Interfaces

USB Host port: 1 x 2.0/1.1
Ethernet port: 2 10/100 Mbit (integr. switch)
Serial port: 1 (RS232/422/485, sw configurable)
Expansion slot: 2 optional plugin
Memory card: 1 SD card slot

Ratings

Power supply (nom): 9-32 Vdc
Current consumption: max 1A @24V
Fuse: Automatic

Environmental conditions

Operational temp.: 0 ÷ +50°C (vertical mounting)
-20°C ÷ +70°C
Storage temp.: Operative and storage humidity: 5 ÷ 85% RH (not condensing)
Protection class: IP66 (front panel) IP20 (rear panel)

Dimensions

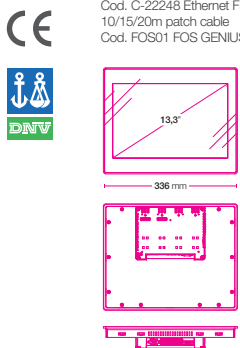
Faceplate (LxH): 336 x 267 mm
Cutout: 326 x 256 mm
Mounting depth (D+T): 56 + 4 mm (without cables, +1 mm with gaskets)
Weight: 2,8 Kg

Genius 13

Code **GENIUS13P**

High-performance 13" touchscreen display, solid and elegant with die-cast housing, features bright colours, wide viewing angles and excellent contrast.

Accessories: Cod. C-26515 Headed drop can DB9 M cable
Cod. C-22248 Ethernet FL CAT6 10/15/20m patch cable
Cod. FOS01 FOS GENIUS Series



Display

Type: TFT
Resolution: 1280 x 800 pixel
Active display area: 13.3" diagonal
Colors: 64K
Backlight: LED
Brightness: 250 cd/m2 typ.
Dimming: Yes

Front panel

Design: polycarbonate
Touch screen: Analog resistive
User LEDs: 1 (dual color)

Interfaces

USB Host port: 1 x 2.0/1.1
Ethernet port: 2 10/100 Mbit (integr. switch)
Serial port: 1 (RS232/422/485, sw configurable)
Expansion slot: 2 optional plugin
Memory card: 1 SD card slot

Ratings

Power supply (nom): 9-32 Vdc
Current consumption: max 1,2A @24V
Fuse: Automatic

Environmental conditions

Operational temp.: 0 ÷ +50°C (vertical mounting)
-20°C ÷ +70°C
Storage temp.: Operative and storage humidity: 5 ÷ 85% RH (not condensing)
Protection class: IP66 (front panel) IP20 (rear panel)

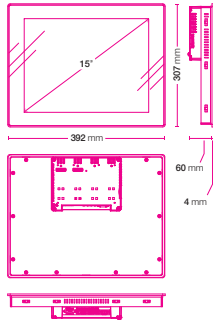
Dimensions

Faceplate (LxH): 336 x 267 mm
Cutout: 326 x 256 mm
Mounting depth (D+T): 56 + 4 mm (without cables, +1 mm with gaskets)
Weight: 2,8 Kg

Genius 15 Code **GENIUS15P**

High-performance 15" polycarbonate touchscreen display with fully dimmable LED backlight. Solid and elegant with die-cast housing, it features top performance and cutting edge design.

Accessories: Cod. C-26515 Headed drop can DB9 M cable
Cod. C-22248 Ethernet FL CAT6 10/15/20m patch cable
Cod. FOS01 FOS GENIUS Series



Display	Type: TFT
Resolution: 1024 x 768 pixel	
Active display area: 15" diagonal	
Colors: 64K	
Backlight: LED	
Brightness: 250 cd/m2 typ.	
Dimming: Yes	
Front panel	Design: polycarbonate
Touch screen: Analog resistive	
User LEDs: 1 (dual color)	
Interfaces	USB Host port: 1 x 2.0/1.1
Ethernet port: 2 10/100 Mbit (integr. switch)	
Serial port: 1 (RS232/422/485, sw configurable)	
Expansion slot: 2 optional plugin	
Memory card: 1 SD card slot	

Ratings	Power supply (nom): 9-32 Vdc
Current consumption: max 1,4A @24V	
Fuse: Automatic	
Environmental conditions	Operational temp.: 0 ÷ +50°C (vertical mounting) -20°C ÷ +70°C
Storage temp.: Operative and storage humidity: 5 ÷ 85% RH (not condensing)	
Protection class: IP66 (front panel) IP20 (rear panel)	
Dimensions	Faceplate (LxH): 392 x 307 mm
Cutout: 381 x 296 mm	
Mounting depth (D+T): 60 + 4 mm (without cables, +1 mm with gaskets)	
Weight: 3,5 Kg	

Plus your project	
Software CodeSys Ready	✓
Software CodeSys In	
Software N-Design Ready	
Software N-Design In	✓
Naviop APPs Ready	✓
NMEA2000 Ready	✓
NMEA2000 In	
Naviop Cables Ready	✓
Remote Access Ready	✓
Customer Care	✓
Service Points Basic Access	✓

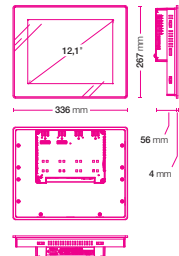


Hardware elements | HMI | Gold Series

Gold 12 Code **NP3300V-GSN**

The T-43GN-V operating panel features a high-brightness 12,1" display with SVGA (800 x 600) resolution, perfect for a strong sunlight and unfavourable light conditions.

Accessories: Cod. C-26515 Headed CAN DB9 M drop
Cod. C-22248 Ethernet FL CAT6 10/15/20 patch
Cod. SCM-05C// SCM-12C PLCs
Cod. NA04-0002 T-BOX PLC unit



Display	Type: TFT
Resolution: 800 x 600 pixel	
Active display area: 12,1" diagonal	
Colors: 64K	
Backlight: CCFL 50000h	
Brightness: 700 cd/m2 typ.	
Dimming: Yes	
Front panel	Design: polycarbonate
Touch screen: Analog resistive	
Communication ports	RS-232 port: 1
RS-422/485 port: 1	
USB Host port: 1 version 1.1	
Ethernet port: 1 (10/100 Mbit)	

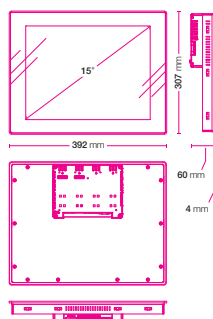
Ratings	Power supply (nom): 18-30 Vdc
Current consumption: max 1,8A @24V	
Fuse: Automatic	
Environmental conditions	Operational temp.: -10 ÷ +55°C (vertical mounting) -20°C ÷ +70°C
Storage temp.: Operative and storage humidity: 5 ÷ 85% RH (not condensing)	
Protection class: IP65 (front panel) IP20 (rear)	
Dimensions	Faceplate (LxH): 337 x 267 mm
Cutout: 326 x 256 mm	
Mounting depth (D): 103 mm	
Weight: 3,7 Kg	

Plus your project	
Software CodeSys Ready	
Software CodeSys In	
Software N-Design Ready	
Software N-Design In	
Naviop APPs Ready	
NMEA2000 Ready	
NMEA2000 In	
Naviop Cables Ready	✓
Remote Access Ready	✓
Customer Care	✓
Service Points Basic Access	✓

Gold 15 Code **NP4300V-GSN**

The T-43GN-V operating panel features a high-brightness 15" display with resistive touch-screen, to input quick and precise commands. Its extended operating temperature range allows to mount it even in hostile environments.

Accessories: Cod. C-26515 Headed CAN DB9 M drop
Cod. C-22248 Ethernet FL CAT6 10/15/20 m patch
Cod. SCM-05C// SCM-12C PLCs



Display	Type: TFT
Resolution: 1024 x 768 pixel	
Active display area: 15" diagonal	
Colors: 64K	
Backlight: CCFL 50000h	
Brightness: 650 cd/m2 typ.	
Dimming: Yes	
Front panel	Design: polycarbonate
Touch screen: Analog resistive	
Communication ports	RS-232 port: 1
RS-422/485 port: 1	
USB Host port: 1 version 1.1	
Ethernet port: 1 (10/100 Mbit)	

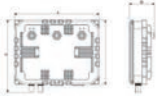
Ratings	Power supply (nom): 18-30 Vdc
Current consumption: max 1,7A @24V	
Fuse: Automatic	
Environmental conditions	Operational temp.: 0 ÷ +45°C (vertical mounting) -20°C ÷ +70°C
Storage temp.: Operative and storage humidity: 5 ÷ 85% RH (not condensing)	
Protection class: IP65 (front panel) IP20 (rear)	
Dimensions	Faceplate (LxH): 392 x 307 mm
Cutout: 381 x 296 mm	
Mounting depth (D): 101 mm	
Weight: 4,2 Kg	

Sharp Video 8

Code **NA20N001**

SHARP VIDEO unit is the core of CRYSTAL and SMART CRYSTAL display families. It can be connected to whichever kind of video device (Tv, PC, display) allowing to show all your data.

Accessories: Cod. C-23723 Supply M12/5 poles M radial cable
Cod. C-22227 Ethernet int. M12/8 poles F radial cable
Cod. C-DV12M DVI cable



Memory	
Memory:	128MByte
User Memory:	128MByte Flash
NVRAM:	32KByte FRAM
Interfaces	
USB Host port:	1 2.0 version
USB Device port:	1 2.0 version
Ethernet port:	1 10/100Mbit
DVI-I input:	1 1.0 single ink
	(Max. Res. SXGA 1280 x 1024 @60Hz)
DVI-D output:	1 1.0 single link
	(Max. Res. SXGA 1280 x 1024 @60Hz)
PAL/NTCS:	2 camera inputs
Controller	
CPU:	High performance RISC @600MHz
Ratings	
Power supply (nom):	9-32 Vdc
Power consumption:	max 25W @24V
Fuse:	Automatic

Environmental conditions	
Operational temp.:	-10 ÷ 55°C
Storage temp.:	-30°C ÷ +85°C
Operative and storage humidity:	5 ÷ 85% RH (not condensing)
Protection class:	IP20 (I/O video interfaces) IP65 (supply and communication connectors)
Dimensions	
Faceplate (LxH):	173 x 149 mm
Depth (D):	51,3 mm
Weight:	0,75 Kg
Housing	
Housing type:	Aluminium

Plus your project

Software CodeSys Ready	<input type="checkbox"/>
Software CodeSys In	<input type="checkbox"/>
Software N-Design Ready	<input type="checkbox"/>
Software N-Design In	<input checked="" type="checkbox"/>
Naviop APPs Ready	<input checked="" type="checkbox"/>
NMEA2000 Ready	<input type="checkbox"/>
NMEA2000 In	<input type="checkbox"/>
Naviop Cables Ready	<input checked="" type="checkbox"/>
Remote Access Ready	<input checked="" type="checkbox"/>
Customer Care	<input checked="" type="checkbox"/>
Service Points Basic Access	<input checked="" type="checkbox"/>

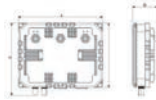


Sharp Video NPilot

Code **NA20N0001-NPILOT**

SHARP VIDEO NPilot allows to easily navigate between pages using NPilot device, the new display controller for a more rapid and safer navigation.

Accessories: Cod. C-23723 Supply M12/5 poles M radial cable
Cod. C-22227 Ethernet int. M12/8 poles F radial cable
Cod. C-DV12M DVI cable



Memory	
Memory:	128MByte
User Memory:	128MByte Flash
NVRAM:	32KByte FRAM
Interfaces	
USB Host port:	1 2.0 version
USB Device port:	1 2.0 version
Ethernet port:	1 10/100Mbit
DVI-I input:	1 1.0 single ink
	(Max. Res. SXGA 1280 x 1024 @60Hz)
DVI-D output:	1 1.0 single link
	(Max. Res. SXGA 1280 x 1024 @60Hz)
PAL/NTCS:	2 camera inputs
Controller	
CPU:	High performance RISC @600MHz
Ratings	
Power supply (nom):	9-32 Vdc
Power consumption:	max 25W @24V
Fuse:	Automatic

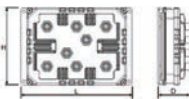
Environmental conditions	
Operational temp.:	-10 ÷ 55°C
Storage temp.:	-30°C ÷ +85°C
Operative and storage humidity:	5 ÷ 85% RH (not condensing)
Protection class:	IP20 (I/O video interfaces) IP65 (supply and communication connectors)
Dimensions	
Faceplate (LxH):	173 x 149 mm
Depth (D):	51,3 mm
Weight:	0,75 Kg
Housing	
Housing type:	Aluminium

T-BOX

Code **NA04-0002**

Designed for marine and harsh environments applications, the product can support the most widely used communication standards to interface with almost all on-board systems. Powerful and intuitive programming with the CoDeSys development tool, it allows customer to configure and manage it by himself.

Accessories: Cod. C-22201 Headed CAN M12-8 POLES female radial 0.5/2mt drop
Cod. C-21589 Supply M12/8 poles F radial cable
Cod. C-22227 Ethernet int. M12/8 poles F radial cable
Cod. C-20663 RS232/485 serial M12-8 POLES female radial cable



Memory	
Flash Disk:	512 MByte
DDRAM Memory:	128 MByte
Interfaces	
Isolated, sw configurable:	3 serial ports
CAN:	4 CAN 2.0
Ethernet:	1 10/100 Mbit
Connectors:	M12, 8 contacts
Controller	
CPU:	MIPS @200MHz
Functionality	
Dual driver:	Yes
Data acquisition:	Yes
Trends:	Yes
Recipe Memory:	32 KByte
Alarms:	1024
Password:	Yes
HW RTC:	Yes, with battery backup
Battery:	Vanadium-Lithium rechargeable, not user replaceable

Ratings	
Power supply (nom):	18-30 Vdc
Current consumption:	max 1A @24V
Fuse:	Automatic
Environmental conditions	
Operational temp.:	0 ÷ +50°C
Storage temp.:	-20°C ÷ +70°C
Operative and storage humidity:	5 ÷ 85% RH (not condensing)
Protection class:	IP65 (front panel) IP66 (rear)
Dimensions	
Faceplate (LxH):	193 x 133 mm
Cutout:	182 x 120 mm
Mounting depth (D):	57 mm
Weight:	1,9 Kg

Plus your project

Software CodeSys Ready	<input type="checkbox"/>
Software CodeSys In	<input checked="" type="checkbox"/>
Software N-Design Ready	<input type="checkbox"/>
Software N-Design In	<input type="checkbox"/>
Naviop APPs Ready	<input checked="" type="checkbox"/>
NMEA2000 Ready	<input checked="" type="checkbox"/>
NMEA2000 In	<input type="checkbox"/>
Naviop Cables Ready	<input checked="" type="checkbox"/>
Remote Access Ready	<input type="checkbox"/>
Customer Care	<input checked="" type="checkbox"/>
Service Points Basic Access	<input checked="" type="checkbox"/>

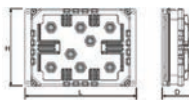


T-BOX N2000

Code **NA04-0002-N2000**

This product combines the most huge functionalities of the standard T-Box unit with the capacity to support the NMEA2000 communication protocols to interface with almost all on-board systems.

Accessories: Cod. C-22201 Headed CAN M12-8 POLES female radial 0.5/2mt drop
Cod. C-21589 Supply M12/8 poles F radial cable
Cod. C-22227 Ethernet int. M12/8 poles F radial cable
Cod. C-20663 RS232/485 serial M12-8 POLES female radial cable



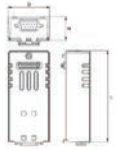
Memory	
Flash Disk:	512 MByte
DDRAM Memory:	128 MByte
Interfaces	
Isolated, sw configurable:	3 serial ports
CAN ports:	3 CAN 2.0
NMEA2000 port:	1
Ethernet port:	1 10/100 Mbit
Connectors:	M12, 8 contacts
Controller	
CPU:	MIPS @200MHz
Functionality	
Dual driver:	Yes
Data acquisition:Yes	Yes
Trends:	Yes
Recipe Memory: 32 KByte	Yes
Alarms:	1024
Password:	Yes
HW RTC:	Yes, with battery backup
Battery:	Vanadium-Lithium rechargeable, not user replaceable

Ratings	
Power supply (nom):	18-30 Vdc
Current consumption:	max 1A @24V
Fuse:	Automatic
Environmental conditions	
Operational temp.:	0 ÷ +50°C
Storage temp.:	-20°C ÷ +70°C
Operative and storage humidity:	5 ÷ 85% RH (not condensing)
Protection class:	IP65 (front panel) IP66 (rear)
Dimensions	
Faceplate (LxH):	193 x 133 mm
Cutout:	182 x 120 mm
Mounting depth (D):	57 mm
Weight:	1,9 Kg

FOS 01CDS Code FOS01

FOS 01 CDS is an 'all in one' CAN interface. A dedicated DB9 male connector which enables your system to connect with a full CAN world. The FOS GENIUS 01 CDS has CoDeSys system installed.

Accessories: Cod. C-26515 Headed CAN DB9 male drop



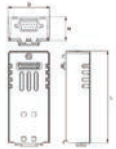
Interfaces	
CAN ports:	1 CAN 2.0
Max speed:	1 Mbit/s
Optical insulation:	Yes
Dimensions	
Faceplate (LxH):	90.3 x 41.2 mm
Depth (D):	23,8 mm

Fos N2000 Genius

Code FOS01-N2000

FOS 01 N2000 is an 'all in one' CAN interface. A dedicated DB9 male connector which enables your system to connect with a full CAN world. Powerful and intuitive programming with the CoDeSys development tool, it allows customer to configure and manage it by himself. The N2000 version embeds a full NMEA2000 protocol. You can reach NMEA2000 world through its DB9 male connector CAN interface.

Accessories: Cod. C-26515 Headed CAN DB9 male drop



Interfaces	
CAN ports:	1 Nmark
Max speed:	1 Mbit/s
Optical insulation:	Yes
Dimensions	
Faceplate (LxH):	90.3 x 41.2 mm
Depth (D):	23,8 mm

Plus your project

Software CodeSys <i>Ready</i>	<input checked="" type="checkbox"/>
Software CodeSys <i>In</i>	<input type="checkbox"/>
Software N-Design <i>Ready</i>	<input type="checkbox"/>
Software N-Design <i>In</i>	<input type="checkbox"/>
Naviop APPs <i>Ready</i>	<input checked="" type="checkbox"/>
NMEA2000 <i>Ready</i>	<input type="checkbox"/>
NMEA2000 <i>In</i>	<input checked="" type="checkbox"/>
Naviop Cables <i>Ready</i>	<input checked="" type="checkbox"/>
Remote Access <i>Ready</i>	<input type="checkbox"/>
Customer Care	<input checked="" type="checkbox"/>
Service Points <i>Basic Access</i>	<input checked="" type="checkbox"/>



SCM 05 Code SCM05P-C

High performance universal communication module able to widen your panel's potentialities. With its local (integrated) CAN network controller driven and controlled by a software that runs locally, your display becomes now a real PLC panel.



Memory	
Flash Memory:	4 MByte
SDRAM Memory:	8 MByte
FPGA:	Xilinx Spartan XC2S150
Serial EEPROM:	25256
Interfaces	
Internal serial bus:	1 SMUX PB
Isolated Fieldbus:	1 CAN 2.0
Controller	
CPU:	79R3041 ldt RISC Processor
Clock freq.:	24 Mhz
CPU supervisor:	yes

In typical application in one GOLD Family display, SCM05 will provide CAN OPEN (1 Mbit max., with optical insulation) via AUX port

Plus your project

Software CodeSys <i>Ready</i>	<input checked="" type="checkbox"/>
Software CodeSys <i>In</i>	<input type="checkbox"/>
Software N-Design <i>Ready</i>	<input type="checkbox"/>
Software N-Design <i>In</i>	<input type="checkbox"/>
Naviop APPs <i>Ready</i>	<input checked="" type="checkbox"/>
NMEA2000 <i>Ready</i>	<input type="checkbox"/>
NMEA2000 <i>In</i>	<input type="checkbox"/>
Naviop Cables <i>Ready</i>	<input checked="" type="checkbox"/>
Remote Access <i>Ready</i>	<input type="checkbox"/>
Customer Care	<input checked="" type="checkbox"/>
Service Points <i>Basic Access</i>	<input checked="" type="checkbox"/>

SCM 12 Code SCM-12C

High performance PLC, targeted for CANOpen and 10Mbit Ethernet. SCM-12 offers broad range of performance features and options to widen your panel's potentialities.



Memory	
Flash Memory:	4 MByte
SDRAM Memory:	8 MByte
FPGA:	Xilinx Spartan XC2S150
Serial EEPROM:	25256
Interfaces	
Internal serial bus:	1 SMUX PB
Isolated Fieldbus:	1 CAN 2.0
Controller	
CPU:	79R3041 ldt RISC Processor
Clock freq.:	24 Mhz
CPU supervisor:	yes

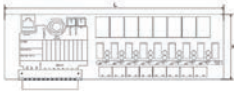
In typical application in one GOLD Family display, SCM05 will provide CAN OPEN (1 Mbit max., with optical insulation) via AUX port

Nova

Code **NA05-0002**

NOVA is a relay board designed specifically for use in marine environments and enables to control up to 8 separate circuits, each of them being protected by a pull-out fuse. CAN connection to the monitoring and control system is available.

Accessories: Cod. C-22201 Headed CAN M12-5 Poles female radial drop
Cod. C-22227 Ethernet int. M12/8 poles F radial cable
Cod. NA04-0002 T-BOX PLC unit



Indicators

General indicator LEDs: 3
Relay control indicators: 8 (1 x channel)
Fuses indicators: 8 (1 x channel)

Interfaces

CANOpen port: 1

Controller

CPU: TMBC003

Ratings

Power supply (nom): 18-32 Vdc
Relay channels: 8
Current consumption: 0.65A @24V (all relays ON)
Fuse: 15A
Relay piloting: 24Vdc (+/- 25%)
60mA per relay (typ.)
Max load (1 channel): 10A (continuous)
Max total load: 50A @ 50°C
Fuse: Automatic

Environmental conditions

Operational temp.: 0 ÷ +50°C

Operative and storage humidity:

5 ÷ 85% RH
(not condensing)
IP20

Protection class:

Dimensions

Faceplate (LxH): 250 x 77 mm
Depth (D): 62 mm

Housing

Type: Plastic case with aluminium top

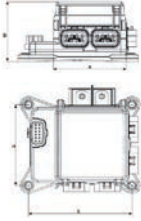
Plus your project

Software CodeSys <i>Ready</i>	<input type="checkbox"/>
Software CodeSys <i>In</i>	<input type="checkbox"/>
Software N-Design <i>Ready</i>	<input type="checkbox"/>
Software N-Design <i>In</i>	<input type="checkbox"/>
Naviop APPs <i>Ready</i>	<input type="checkbox"/>
NMEA2000 <i>Ready</i>	<input type="checkbox"/>
NMEA2000 <i>In</i>	<input type="checkbox"/>
Naviop Cables <i>Ready</i>	<input checked="" type="checkbox"/>
Remote Access <i>Ready</i>	<input type="checkbox"/>
Customer Care	<input checked="" type="checkbox"/>
Service Points <i>Basic Access</i>	<input checked="" type="checkbox"/>

Egon

Code **31M-000-2**

EGON is a state-of-the-art electrical distribution module for DC powered vehicles. It is possible to choose between 12V or 24V power supply, and connect 8 relay channels and 16 fused channels. It enables to eliminate the electrical panel and supply power to all the boat.



Interfaces

CANOpen port: 1

Ratings

Power supply (voltage): 12-26 Vde
 Power supply (range): 9-32 Vde
 Dielectric V withstanding: 80 Vdc
 Relay channels: 8
 Fused channels: 16
 Total Amperage limit: 200A
 Total Amps per connector: 100A
 Max load per channel
 fused: 30A
 @12/24Vdc
 with relay: 20A @12Vdc
 10A @12Vdc
 Max total board load: 200A

Environmental conditions

Operational temp.: -40 ÷ + 85 °C
 Storage temp.: -40 ÷ +125 °C
 Thermal shock: -40 ÷ + 85 °C
 Mechanical shock: J2030 (RDEC2002), Section 6,16
 bombardment test: 24 hour of dust, sand and gravel subject to 96 hour period of salt fog per ASTM B117-94
 salt fog: IP66

Protection class:

Dimensions

LxH: 158 x 121 mm
 A: 108 mm
 D: 39 mm

Housing

Type: UL-rated 94V-0 thermoplastic

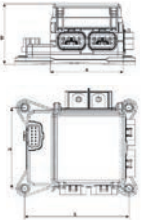
Plus your project

Software CodeSys Ready	<input type="checkbox"/>
Software CodeSys In	<input type="checkbox"/>
Software N-Design Ready	<input type="checkbox"/>
Software N-Design In	<input type="checkbox"/>
Navio APPs Ready	<input type="checkbox"/>
NMEA2000 Ready	<input type="checkbox"/>
NMEA2000 In	<input type="checkbox"/>
Navio Cables Ready	<input checked="" type="checkbox"/>
Remote Access Ready	<input type="checkbox"/>
Customer Care	<input checked="" type="checkbox"/>
Service Points Basic Access	<input checked="" type="checkbox"/>

Egon +

Code **BUSS-1851-2M**

EGON+ is a state-of-the-art electrical distribution module for DC powered vehicles. It is possible to choose between 12V or 24V power supply, and connect 8 relay channels and 16 fused channels. The 8 relay channels have bypass on the output connector to turn on/off the load manually.



Interfaces

CANOpen port: 1

Ratings

Power supply (voltage): 12-26 Vde
 Power supply (range): 9-32 Vde
 Dielectric V withstanding: 80 Vdc
 Relay channels: 8
 Fused channels: 16
 Total Amperage limit: 200A
 Total Amps per connector: 100A
 Max load per channel
 fused: 30A
 @12/24Vdc
 with relay: 20A @12Vdc
 10A @12Vdc
 Max total board load: 200A

Environmental conditions

Operational temp.: -40 ÷ + 85 °C
 Storage temp.: -40 ÷ +125 °C
 Thermal shock: -40 ÷ + 85 °C
 Mechanical shock: J2030 (RDEC2002), Section 6,16
 bombardment test: 24 hour of dust, sand and gravel subject to 96 hour period of salt fog per ASTM B117-94
 salt fog: IP66

Protection class:

Dimensions

LxH: 158 x 121 mm
 A: 108 mm
 D: 39 mm

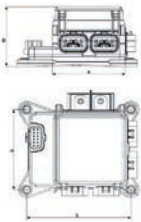
Housing

Type: UL-rated 94V-0 thermoplastic

Egon + Power

Code **BUSS-1852-1M**

EGON+ POWER is a state-of-the-art electrical distribution module for DC powered vehicles. It is possible to choose between 12V or 24V power supply, and connect 8 relays channels and 16 fused channels. The 8 relay channels have bypass on the output connector to turn on/off the load manually.



Interfaces

CANOpen port: 1

Ratings

Power supply (voltage): 12-26 Vde
 Power supply (range): 9-32 Vde
 Dielectric V withstanding: 80 Vdc
 Relay channels: 8
 Fused channels: 8
 Total Amperage limit: 200A
 Total Amps per connector: 100A
 Max load per channel
 fused: 30A
 @12/24Vdc
 with relay: 30A @12Vdc
 15A @24Vdc
 Max total board load: 200A

Environmental conditions

Operational temp.: -40 ÷ + 85 °C
 Storage temp.: -40 ÷ +125 °C
 Thermal shock: -40 ÷ + 85 °C
 Mechanical shock: J2030 (RDEC2002), Section 6,16
 bombardment test: 24 hour of dust, sand and gravel subject to 96 hour period of salt fog per ASTM B117-94
 salt fog: IP66

Protection class:

Dimensions

LxH: 158 x 121 mm
 A: 108 mm
 D: 39 mm

Housing

Type: UL-rated 94V-0 thermoplastic

West

Code **NA-WEST**

This weather control unit is a complete, compact and modern meteorological station. All components, even the sensors and the powerful microprocessor, are mounted on a single 42 x 42mm printed circuit.

Accessories: Cod. xxx Y Weather Control Unit DB9 Y 5m cable



Interfaces	
NMEA interface:	NMEA0183
NMEA0183 supported strings	
MDA:	1 every 20s
XDR:	1 every 20s
Ratings	
Power supply:	8-38 Vdc
Power consumption:	<20mW (medium)
Range, resolution, accuracy	
Pressure:	900÷1100mBar, 1mBar +/-1%
Temperature:	-40÷+125°C, 1°C +/-1%
Humidity (RH):	20÷90%RH, 1°C +/-2%

Environmental conditions	
Operational temp.:	-28÷+70°C
Storage temp.:	-28÷+70°C

Dimensions	
Faceplate (LxH):	120 x 63mm
Depth (D):	40 mm
Weight:	<30g

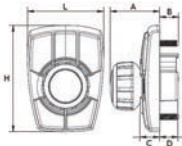
Plus your project

Software CodeSys <i>Ready</i>	<input type="checkbox"/>
Software CodeSys <i>In</i>	<input type="checkbox"/>
Software N-Design <i>Ready</i>	<input type="checkbox"/>
Software N-Design <i>In</i>	<input type="checkbox"/>
Naviop APPs <i>Ready</i>	<input type="checkbox"/>
NMEA2000 <i>Ready</i>	<input type="checkbox"/>
NMEA2000 <i>In</i>	<input type="checkbox"/>
Naviop Cables <i>Ready</i>	<input checked="" type="checkbox"/>
Remote Access <i>Ready</i>	<input type="checkbox"/>
Customer Care	<input checked="" type="checkbox"/>
Service Points <i>Basic Access</i>	<input checked="" type="checkbox"/>

N-PILOT

Code **NA-PILOT**

With NPILOT it is possible to access all Naviop pages through 5 hot keys for rapid navigation, a rotary encoder to scroll them, pushbuttons to select items and a joystick.



Functions	
Hot keys:	5
Rotary encoder:	1
Pushbutton:	1 central
Joystick directions:	4
Interfaces	
CANOpen port:	1
Ratings	
Power supply:	8-32 Vdc
Maximum load:	-40°C 4h +85°C 11h max load all outputs to ground 60s
Short circuit protection:	

Environmental conditions	
Operational temp.:	-40 ÷ +85 °C
Storage temp.:	-40 ÷ +85 °C
Thermal shock:	-40 ÷ +70 °C
Mechanical shock:	ANSI/ASAE EP455 5.14
Protection class:	ANSI/ASAE EP455 5.9 IP67

Dimensions	
Faceplate (LxH):	79.4 x 110.7mm
Depth (A+B):	51.5 + 19.8 mm
Depth (C+D):	20.4 + 19.2 mm

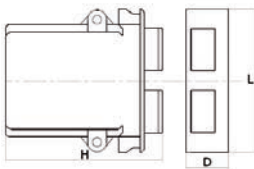
Plus your project

Software CodeSys <i>Ready</i>	<input type="checkbox"/>
Software CodeSys <i>In</i>	<input type="checkbox"/>
Software N-Design <i>Ready</i>	<input type="checkbox"/>
Software N-Design <i>In</i>	<input type="checkbox"/>
Naviop APPs <i>Ready</i>	<input checked="" type="checkbox"/>
NMEA2000 <i>Ready</i>	<input type="checkbox"/>
NMEA2000 <i>In</i>	<input type="checkbox"/>
Naviop Cables <i>Ready</i>	<input checked="" type="checkbox"/>
Remote Access <i>Ready</i>	<input type="checkbox"/>
Customer Care	<input checked="" type="checkbox"/>
Service Points <i>Basic Access</i>	<input checked="" type="checkbox"/>

Naviop ENG

Code **NA-ENG**

Eng is a programmable sensor module that creates an interface between several electronic sensors and J1939 networks. Suitable for marine engines monitoring.



Inputs	
Analogue inputs:	7 (configurable)
Pulse (digital) inputs:	3
System input:	1 (for voltage)
Outputs	
1 Amp output driver:	1
Interfaces	
CANOpen port:	1 up to 500Kbit/s
Serial port:	1
Ratings	
Power supply:	10-32 Vdc
Power consumption:	100mA
Transient protection:	-34V to 34V (1 min.)

Environmental conditions	
Operational temp.:	-40 ÷ + 85 °C
Storage temp.:	-40 ÷ +105 °C
Thermal shock:	-40 ÷ + 85 °C
Mechanical shock:	BSEN 60945
Protection class:	IP66

Dimensions	
Faceplate (LxH):	130 x 120mm
Depth (D):	37 mm
Weight:	< 230g

Housing	
Type:	rugged automotive approved Deutsch enclosure/connector system

Cod. C-22201

M12/8 POLES FEMALE RADIAL HEADED CAN DROP (length: 0,5 m)

Cod. C-20222

M12/8 POLES FEMALE RADIAL HEADED CAN DROP (length: 2 m)



Physical properties

Conductor lay-up: twisted pairs - red copper - Class 6 - VDE 0295
 Conductor insulation: Polyolefin - Colour = DIN47100
 Shield: Al tape coverage 100 %
 Outer jacket: Polyurethane - VIOLET RAL 4001
 Working temperature: -30 °C / +80 °C

Electrical properties

Working voltage: 30 V
 Impedance: 120 Ohm
 Transmission speed: up to 40m: 1 Mbit/s
 up to 300 m: 500 Kbit/s
 up to 600 m: 100 Kbit/s
 up to 1000 m: 50 Kbit/s
 Nominal capacitance: 50 pF/m

Dynamic properties

Minimum bending radius: 13 x 0 cable
 Travel speed: 200 m/min

Acceleration/deceleration: 6 m/sec²
 Chain length: 15 m horizontal only

Manufactory requirements

Reference standards: According to EN50254
 EN50325 IEC62026
 STYLE20236 80°C 30V
 Fire behaviour: VW-1(USA) CEI 20-35
 IEC60332.1 (EUROPE)
 Industrial oil resistance: UL 1581
 Hydrocarbon resistance: UL 1581

Plus your project

Software CodeSys Ready	<input type="checkbox"/>
Software CodeSys In	<input type="checkbox"/>
Software N-Design Ready	<input type="checkbox"/>
Software N-Design In	<input type="checkbox"/>
Naviop APPs Ready	<input type="checkbox"/>
NMEA2000 Ready	<input type="checkbox"/>
NMEA2000 In	<input type="checkbox"/>
Naviop Cables Ready	<input checked="" type="checkbox"/>
Remote Access Ready	<input type="checkbox"/>
Customer Care	<input checked="" type="checkbox"/>
Service Points Basic Access	<input checked="" type="checkbox"/>

Cod. C-24668

M12/5 POLES FEMALE RADIAL HEADED CAN DROP (length: 0,5 m)



Physical properties

Conductor lay-up: twisted pairs - red copper - Class 6 - VDE 0295
 Conductor insulation: Polyolefin - Colour = DIN47100
 Shield: Al tape coverage 100 %
 Outer jacket: Polyurethane - VIOLET RAL 4001
 Working temperature: -30 °C / +80 °C

Electrical properties

Working voltage: 30V
 Impedance: 120Ohm
 Transmission speed: up to 40m: 1Mbit/s
 up to 300m:500Kbit/s
 up to 600m: 100Kbit/s
 up to 1000m: 50Kbit/s
 Nominal capacitance: 50pF/m

Dynamic properties

Minimum bending radius: 13 x 0 cable
 Travel speed: 200m/min
 Acceleration/deceleration: 6m/sec²

Chain length: 15m horizontal only

Manufactory requirements

Reference standards: According to EN50254
 EN50325 IEC62026
 STYLE20236 80°C 30V
 Fire behaviour: VW-1(USA) CEI 20-35
 IEC60332.1 (EUROPE)
 Industrial oil resistance: UL 1581
 Hydrocarbon resistance: UL 1581

Cod. C-22202

M12/5 POLES MALE AXIAL HEADED CAN DROP (length: 0,5m)



Physical properties

Conductor lay-up: twisted pairs - red copper - Class 6 - VDE 0295
 Conductor insulation: Polyolefin - Colour=DIN47100
 Shield: Al tape coverage 100%
 Outer jacket: Polyurethane - VIOLET RAL 4001
 Working temp.: -30°C/+80°C

Electrical properties

Working voltage: 30V
 Impedance: 120Ohm
 Transmission speed: up to 40m: 1Mbit/s
 up to 300m:500Kbit/s
 up to 600m: 100Kbit/s
 up to 1000m: 50Kbit/s
 Nominal capacitance: 50pF/m

Dynamic properties

Minimum bending radius: 13 x 0 cable
 Travel speed: 200m/min
 Acceleration/deceleration: 6m/sec²

Chain length: 15m horizontal only

Manufactory requirements

Reference standards: According to EN50254
 EN50325 IEC62026
 STYLE20236 80°C 30V
 Fire behaviour: VW-1(USA) CEI 20-35
 IEC60332.1 (EUROPE)
 Industrial oil resistance: UL 1581
 Hydrocarbon resistance: UL 1581

Cod. C-20817

M12/5 POLES FEMALE RADIAL HEADED CAN DROP (length: 2 m)



Physical properties

Conductor lay-up: twisted pairs - red copper - Class 6 - VDE 0295
 Conductor insulation: Polyolefin - Colour=DIN47100
 Shield: Al tape coverage 100%
 Outer jacket: Polyurethane - VIOLET RAL 4001
 Working temp.: -30°C/+80°C

Electrical properties

Working voltage: 30V
 Impedance: 120Ohm
 Transmission speed: up to 40m: 1Mbit/s
 up to 300m:500Kbit/s
 up to 600m: 100Kbit/s
 up to 1000m: 50Kbit/s
 Nominal capacitance: 50pF/m

Dynamic properties

Minimum bending radius: 13 x 0 cable
 Travel speed: 200m/min
 Acceleration/deceleration: 6m/sec²

Chain length: 15m horizontal only

Manufactory requirements

Reference standards: According to EN50254
 EN50325 IEC62026
 STYLE20236 80°C 30V
 Fire behaviour: VW-1(USA) CEI 20-35
 IEC60332.1 (EUROPE)
 Industrial oil resistance: UL 1581
 Hydrocarbon resistance: UL 1581

Cod. C-20817

M12/5 POLES FEMALE RADIAL HEADED CAN DROP (length: 2 m)



Physical properties

Conductor lay-up: twisted pairs - red copper - Class 6 - VDE 0295
 Conductor insulation: Polyolefin - Colour=DIN47100
 Shield: Al tape coverage 100%
 Outer jacket: Polyurethane - VIOLET RAL 4001
 Working temp.: -30°C/+80°C

Electrical properties

Working voltage: 30V
 Impedance: 120Ohm
 Transmission speed: up to 40m: 1Mbit/s
 up to 300m: 500Kbit/s
 up to 600m: 100Kbit/s
 up to 1000m: 50Kbit/s
 Nominal capacitance: 50pF/m

Dynamic properties

Minimum bending radius: 13 x 0 cable
 Travel speed: 200m/min
 Acceleration/deceleration: 6m/sec²
 Chain length: 15m horizontal only

Manufactory requirements

Reference standards: According to EN50254
 EN50325 IEC62026
 STYLE20236 80°C 30V
 Fire behaviour: VW-1(USA) CEI 20-35
 IEC60332.1 (EUROPE)
 Industrial oil resistance: UL 1581
 Hydrocarbon resistance: UL 1581

Plus your project

Software CodeSys Ready	<input type="checkbox"/>
Software CodeSys In	<input type="checkbox"/>
Software N-Design Ready	<input type="checkbox"/>
Software N-Design In	<input type="checkbox"/>
Naviop APPs Ready	<input type="checkbox"/>
NMEA2000 Ready	<input type="checkbox"/>
NMEA2000 In	<input type="checkbox"/>
Naviop Cables Ready	<input checked="" type="checkbox"/>
Remote Access Ready	<input type="checkbox"/>
Customer Care	<input checked="" type="checkbox"/>
Service Points Basic Access	<input checked="" type="checkbox"/>

Cod. C-20225

M12/5 POLES FEMALE AXIAL HEADED CAN DROP (length: 2m)



Physical properties

Conductor lay-up: twisted pairs - red copper - Class 6 - VDE 0295
 Conductor insulation: Polyolefin - Colour=DIN47100
 Shield: Al tape coverage 100%
 Outer jacket: Polyurethane - VIOLET RAL 4001
 Working temp.: -30°C/+80°C

Electrical properties

Working voltage: 30V
 Impedance: 120Ohm
 Transmission speed: up to 40m: 1Mbit/s
 up to 300m: 500Kbit/s
 up to 600m: 100Kbit/s
 up to 1000m: 50Kbit/s
 Nominal capacitance: 50pF/m

Dynamic properties

Minimum bending radius: 13 x 0 cable
 Travel speed: 200m/min

Dynamic properties

Acceleration/deceleration: 6m/sec²
 Chain length: 15m horizontal only

Manufactory requirements

Reference standards: According to EN50254
 EN50325 IEC62026
 STYLE20236 80°C 30V
 Fire behaviour: VW-1(USA) CEI 20-35
 IEC60332.1 (EUROPE)
 Industrial oil resistance: UL 1581
 Hydrocarbon resistance: UL 1581

Cod. C-21590

M12/8 POLES-M12/5 POLES DOUBLE T CAN DROP (length: 2m)



Physical properties

Conductor lay-up: twisted pairs - red copper - Class 6 - VDE 0295
 Conductor insulation: Polyolefin - Colour=DIN47100
 Shield: Al tape coverage 100%
 Outer jacket: Polyurethane - VIOLET RAL 4001
 Working temp.: -30°C/+80°C

Electrical properties

Working voltage: 30V
 Impedance: 120Ohm
 Transmission speed: up to 40m: 1Mbit/s
 up to 300m: 500Kbit/s
 up to 600m: 100Kbit/s
 up to 1000m: 50Kbit/s
 Nominal capacitance: 50pF/m

Dynamic properties

Minimum bending radius: 13 x 0 cable
 Travel speed: 200m/min
 Acceleration/deceleration: 6m/sec²
 Chain length: 15m horizontal only

Manufactory requirements

Reference standards: According to EN50254
 EN50325 IEC62026
 STYLE20236 80°C 30V
 Fire behaviour: VW-1(USA) CEI 20-35
 IEC60332.1 (EUROPE)
 Industrial oil resistance: UL 1581
 Hydrocarbon resistance: UL 1581

Cod. C-20224

FREE END CAN DROP (length: 2m)



Physical properties

Conductor lay-up: twisted pairs - red copper - Class 6 - VDE 0295
 Conductor insulation: Polyolefin - Colour=DIN47100
 Shield: Al tape coverage 100%
 Outer jacket: Polyurethane - VIOLET RAL 4001
 Working temp.: -30°C/+80°C

Electrical properties

Working voltage: 30V
 Impedance: 120Ohm
 Transmission speed: up to 40m: 1Mbit/s
 up to 300m: 500Kbit/s
 up to 600m: 100Kbit/s
 up to 1000m: 50Kbit/s
 Nominal capacitance: 50pF/m

Dynamic properties

Minimum bending radius: 13 x 0 cable
 Travel speed: 200m/min
 Acceleration/deceleration: 6m/sec²

Chain length: 15m horizontal only

Manufactory requirements

Reference standards: According to EN50254
 EN50325 IEC62026
 STYLE20236 80°C 30V
 Fire behaviour: VW-1(USA) CEI 20-35
 IEC60332.1 (EUROPE)
 Industrial oil resistance: UL 1581
 Hydrocarbon resistance: UL 1581

Cod. C-20698

DB9 MALE HEADED CAN DROP
(length: 2m)



Physical properties

Conductor lay-up: twisted pairs - red copper - Class 6 - VDE 0295
 Conductor insulation: Polyolefin - Colour=DIN47100
 Shield: Al tape coverage 100%
 Outer jacket: Polyurethane - VIOLET RAL 4001
 Working temp.: -30°C/+80°C

Electrical properties

Working voltage: 30V
 Impedance: 120Ohm
 Transmission speed:
 up to 40m: 1Mbit/s
 up to 300m:500Kbit/s
 up to 600m: 100Kbit/s
 up to 1000m: 50Kbit/s
 Nominal capacitance: 50pF/m

Dynamic properties

Minimum bending radius: 13 x 0 cable
 Travel speed: 200m/min

Acceleration/deceleration: 6m/sec²
 Chain length: 15m horizontal only

Manufactory requirements

Reference standards: According to EN50254 EN50325 IEC62026 STYLE20236 80°C 30V
 Fire behaviour: VW-1(USA) CEI 20-35 IEC60332.1 (EUROPE)
 Industrial oil resistance: UL 1581
 Hydrocarbon resistance: UL 1581

Plus your project

Software CodeSys Ready	<input type="checkbox"/>
Software CodeSys In	<input type="checkbox"/>
Software N-Design Ready	<input type="checkbox"/>
Software N-Design In	<input type="checkbox"/>
Naviop APP's Ready	<input type="checkbox"/>
NMEA2000 Ready	<input type="checkbox"/>
NMEA2000 In	<input type="checkbox"/>
Naviop Cables Ready	<input checked="" type="checkbox"/>
Remote Access Ready	<input type="checkbox"/>
Customer Care	<input checked="" type="checkbox"/>
Service Points Basic Access	<input checked="" type="checkbox"/>

Cod. C-26515

DB9 FEMALE HEADED CAN DROP
(length: 2m)



Physical properties

Conductor lay-up: twisted pairs - red copper - Class 6 - VDE 0295
 Conductor insulation: Polyolefin - Colour=DIN47100
 Shield: Al tape coverage 100%
 Outer jacket: Polyurethane - VIOLET RAL 4001
 Working temp.: -30°C/+80°C

Electrical properties

Working voltage: 30V
 Impedance: 120Ohm
 Transmission speed:
 up to 40m: 1Mbit/s
 up to 300m:500Kbit/s
 up to 600m: 100Kbit/s
 up to 1000m: 50Kbit/s
 Nominal capacitance: 50pF/m

Dynamic properties

Minimum bending radius: 13 x 0 cable
 Travel speed: 200m/min
 Acceleration/deceleration: 6m/sec²

Chain length: 15m horizontal only

Manufactory requirements

Reference standards: According to EN50254 EN50325 IEC62026 STYLE20236 80°C 30V
 Fire behaviour: VW-1(USA) CEI 20-35 IEC60332.1 (EUROPE)
 Industrial oil resistance: UL 1581
 Hydrocarbon resistance: UL 1581

Cod. C-20643

M12/5 POLES CAN BACKBONE
(length: 5m)

C-20695 (length: 10m)

C-20696 (length: 15m)

C-20862 (length: 20m)

C-20223 (length: 30m)



Physical properties

Conductor lay-up: twisted pairs - red copper - Class 6 - VDE 0295
 Conductor insulation: Polyolefin - Colour=DIN47100
 Shield: Al tape coverage 100%
 Outer jacket: Polyurethane - VIOLET RAL 4001
 Working temp.: -30°C/+80°C

Electrical properties

Working voltage: 30V
 Impedance: 120Ohm
 Transmission speed:
 up to 40m: 1Mbit/s
 up to 300m:500Kbit/s
 up to 600m: 100Kbit/s
 up to 1000m: 50Kbit/s
 Nominal capacitance: 50pF/m

Dynamic properties

Minimum bending radius: 13 x 0 cable
 Travel speed: 200m/min
 Acceleration/deceleration: 6m/sec²

Chain length: 15m horizontal only

Manufactory requirements

Reference standards: According to EN50254 EN50325 IEC62026 STYLE20236 80°C 30V
 Fire behaviour: VW-1(USA) CEI 20-35 IEC60332.1 (EUROPE)
 Industrial oil resistance: UL 1581
 Hydrocarbon resistance: UL 1581

Cod. C-20941

FEMALE 120 OHM CAN END



Physical properties

Working temp.: -30°C/+80°C

Electrical properties

Working voltage: 30V
 Impedance: 120Ohm
 Transmission speed:
 up to 40m: 1Mbit/s
 up to 300m:500Kbit/s
 up to 600m: 100Kbit/s
 up to 1000m: 50Kbit/s
 Nominal capacitance: 50pF/m

Manufactory requirements

Reference standards: According to EN50254 EN50325 IEC62026 STYLE20236 80°C 30V
 Fire behaviour: VW-1(USA) CEI 20-35 IEC60332.1 (EUROPE)

Industrial oil resistance: UL 1581
 Hydrocarbon resistance: UL 1581

Cod. C-20942

MALE 120 OHM CAN END



Physical properties

Working temp.: -30°C/+80°C

Industrial oil resistance:
Hydrocarbon resistance:

UL 1581
UL 1581

Electrical properties

Working voltage: 30V
Impedance: 120Ohm
Transmission speed:
up to 40m: 1Mbit/s
up to 300m:500Kbit/s
up to 600m: 100Kbit/s
up to 1000m: 50Kbit/s
Nominal capacitance: 50pF/m

Manufactory requirements

Reference standards:
According to EN50254
EN50325 IEC62026
STYLE20236 80°C 30V

Fire behaviour:
VW-1(USA) CEI 20-35
IEC60332.1 (EUROPE)

Plus your project

- Software CodeSys *Ready*
- Software CodeSys *In*
- Software N-Design *Ready*
- Software N-Design *In*
- Naviop APPs *Ready*
- NMEA2000 *Ready*
- NMEA2000 *In*
- Naviop Cables *Ready*
- Remote Access *Ready*
- Customer Care
- Service Points *Basic Access*

Cod. C-21591

CAN SUPPLY INSULATOR



Physical properties

Working temp.: -30°C/+80°C

Electrical properties

Working voltage: 30V
Impedance: 120Ohm
Transmission speed:
up to 40m: 1Mbit/s
up to 300m:500Kbit/s
up to 600m: 100Kbit/s
up to 1000m: 50Kbit/s
Nominal capacitance: 50pF/m

Manufactory requirements

Reference standards:
According to EN50254
EN50325 IEC62026
STYLE20236 80°C 30V

Fire behaviour:
VW-1(USA) CEI 20-35
IEC60332.1 (EUROPE)

Industrial oil resistance: UL 1581
Hydrocarbon resistance: UL 1581

Plus your project

- Software CodeSys *Ready*
- Software CodeSys *In*
- Software N-Design *Ready*
- Software N-Design *In*
- Naviop APPs *Ready*
- NMEA2000 *Ready*
- NMEA2000 *In*
- Naviop Cables *Ready*
- Remote Access *Ready*
- Customer Care
- Service Points *Basic Access*

Cod. C-22248

FL CAT6 PATCH CABLE
(length: 10m)

Cod. C-22209 (length: 15m)

Cod. C-22210 (length: 20m)



Physical properties

Conductor lay-up: 8 singles Cu conductors per module

Conductor trasversal sect.: 0.14mm²
Outer jacket: LSFROH
External diam.: 5.5mm
Working temp.: -10°C/+60°C

Electrical properties

Working voltage: 30V

Dynamic properties

Minimum bending radius: 30mm

Cod. C-20698

DB9 MALE HEADED CAN DROP
(length: 2m)



Physical properties
 Conductor lay-up: twisted pairs - red copper - Class 6 - VDE 0295
 Conductor insulation: Polyolefin - Colour=DIN47100
 Shield: Al tape coverage 100%
 Outer jacket: Polyurethane - VIOLET RAL 4001
 Working temp.: -30°C/+80°C

Electrical properties
 Working voltage: 30V
 Impedance: 120Ohm
 Transmission speed:
 up to 40m: 1Mbit/s
 up to 300m:500Kbit/s
 up to 600m: 100Kbit/s
 up to 1000m: 50Kbit/s
 Nominal capacitance: 50pF/m

Dynamic properties
 Minimum bending radius: 13 x 0 cable
 Travel speed: 200m/min
 Acceleration/deceleration: 6m/sec^2

Chain length: 15m horizontal only

Manufactory requirements
 Reference standards:
 According to EN50254
 EN50325 IEC62026
 STYLE20236 80°C 30V

Fire behaviour:
 VW-1(USA) CEI 20-35
 IEC60332.1 (EUROPE)

Industrial oil resistance: UL 1581
 Hydrocarbon resistance: UL 1581

Plus your project

Software CodeSys Ready	<input type="checkbox"/>
Software CodeSys In	<input type="checkbox"/>
Software N-Design Ready	<input type="checkbox"/>
Software N-Design In	<input type="checkbox"/>
Navio APPs Ready	<input type="checkbox"/>
NMEA2000 Ready	<input type="checkbox"/>
NMEA2000 In	<input type="checkbox"/>
Navio Cables Ready	<input checked="" type="checkbox"/>
Remote Access Ready	<input type="checkbox"/>
Customer Care	<input checked="" type="checkbox"/>
Service Points Basic Access	<input checked="" type="checkbox"/>

Cod. C-22227

M12/8 POLES
FEMALE RADIAL ETH CABLE
(length: 2m)



Physical properties
 Conductor lay-up: twisted pairs
 Conductor insulation: Polyolefin - Colour WO/O WG/G
 Shield: 2 shields
 Outer jacket: Static inst. PVC and PUR
 Dynamic inst. Polyurethane
 mixture - Colour: YELLOW
 Working temp.: -30°C/+80°C

Electrical properties
 Category: 5E (200MHz) EIA/TIA 568B.2 (USA) - 5/EN50288 (EUROPE)
 Nominal impedance: 100Ohm+/-15 (1-100MHz)
 Transmission speed:
 up to 100m: 100Mbit/s
 up to 500m: 10Mbit/s
 Nominal capacitance: 50pF/m

Dynamic properties
 Minimum bending radius: 15 x 0 cable
 Travel speed: 200m/min
 Acceleration/deceleration: 10m/sec^2

Chain length: 15m horizontal only

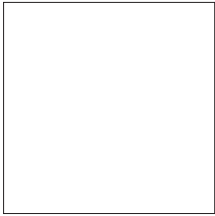
Manufactory requirements
 Reference standards:
 STYLE 2095 80°C 300V
 STYLE 20549 80°C 300V
 ISO/IEC 11801 - EIA/TIA 568B.2

Fire behaviour:
 VW-1(USA) CEI 20-35
 IEC60332.1 (EUROPE)

Industrial oil resistance: UL 1581

Cod. C-24592

M12 cod. "D" FEMALE AXIAL RJ45 ETH
CABLE (length: 2m)



Physical properties
 Conductor lay-up: twisted pairs
 Conductor insulation: Polyolefin - Colour WO/O WG/G
 Shield: 2 shields
 Outer jacket: Static inst. PVC and PUR
 Dynamic inst. Polyurethane
 mixture - Colour: GREEN
 Working temp.: -30°C/+80°C

Electrical properties
 Category: 5E (200MHz) EIA/TIA 568B.2 (USA) - 5/EN50288 (EUROPE)
 Nominal impedance: 100Ohm+/-15 (1-100MHz)
 Transmission speed:
 up to 100m: 100Mbit/s
 up to 500m: 10Mbit/s
 Nominal capacitance: 50pF/m

Dynamic properties
 Minimum bending radius: 15 x 0 cable
 Travel speed: 200m/min
 Acceleration/deceleration: 10m/sec^2
 Chain length: 15m horizontal only

Manufactory requirements
 Reference standards:
 STYLE 2095 80°C 300V
 STYLE 20549 80°C 300V
 ISO/IEC 11801 - EIA/TIA 568B.2

Fire behaviour:
 VW-1(USA) CEI 20-35
 IEC60332.1 (EUROPE)

Industrial oil resistance: UL 1581

Plus your project

Software CodeSys Ready	<input type="checkbox"/>
Software CodeSys In	<input type="checkbox"/>
Software N-Design Ready	<input type="checkbox"/>
Software N-Design In	<input type="checkbox"/>
Navio APPs Ready	<input type="checkbox"/>
NMEA2000 Ready	<input type="checkbox"/>
NMEA2000 In	<input type="checkbox"/>
Navio Cables Ready	<input checked="" type="checkbox"/>
Remote Access Ready	<input type="checkbox"/>
Customer Care	<input checked="" type="checkbox"/>
Service Points Basic Access	<input checked="" type="checkbox"/>

Cod. C-20663

M12/8 POLES FEMALE RADIAL RS232/485
SERIAL CABLE (length: 2m)



Physical properties
 Conductor lay-up: CEI 20-29 IEC 60228
 Class: Tinned copper - Class 5 - VDE 0295
 Conductor insulation: Expanded Polyolefin - Low Capacitance - Colour: DIN 47100
 Shield: Tinned copper vraid. Coverage >85%
 Outer jacket: Polyurethane - GREY RAL 7001
 Working temp.: -40°C/+80°C

Electrical properties
 Working voltage: 30V
 Test voltage: 1500V
 Nominal capacitance: 35pF/m
 Nominal impedance: 120Ohm

Manufactory requirements
 Reference standards:
 UL (STYLE 20236) - CSA

Fire behaviour:
 VW-1(USA) FT1 (CANADA)

CEI 20-35
 IEC60332.1 (EUROPE)

Industrial oil resistance:
 CNOMO E.03.04
 150N - NFT 4601/3

Cod. C-22455

WEATHER CONTROL UNIT DB9 "Y" CABLE
(length: 5m)

Cod. C-24847 (length: 25m)



Physical properties

Conductor lay-up: CEI 20-29 IEC 60228
Tinned copper - Class 5 - VDE 0295

Class

Conductor insulation: Expanded Polyolefin - Low Capacitance - Colour: DIN 47100

Shield: Tinned copper vraid, Coverage >85%

Outer jacket: Polyurethane - GREY RAL 7001

Working temp.: -40°C/+80°C

CEI 20-35 IEC60332.1 (EUROPE)
Industrial oil resistance: CNOMO E.03.04 150N - NFT 4601/

Electrical properties

Working voltage: 30V
Test voltage: 1500V
Nominal capacitance: 35pF/m
Nominla impedance: 120Ohm

Manufactory requirements

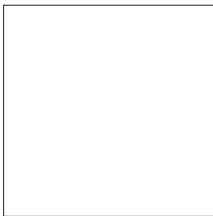
Reference standards: UL (STYLE 20236) - CSA
Fire behaviour: VW-1(USA) FT1 (CANADA)

Plus your project

Software CodeSys Ready	<input type="checkbox"/>
Software CodeSys In	<input type="checkbox"/>
Software N-Design Ready	<input type="checkbox"/>
Software N-Design In	<input type="checkbox"/>
Naviop APPs Ready	<input type="checkbox"/>
NMEA2000 Ready	<input type="checkbox"/>
NMEA2000 In	<input type="checkbox"/>
Naviop Cables Ready	<input checked="" type="checkbox"/>
Remote Access Ready	<input type="checkbox"/>
Customer Care	<input checked="" type="checkbox"/>
Service Points Basic Access	<input checked="" type="checkbox"/>

Cod. C-21591

CAN SUPPLY INSULATOR



Physical properties

Working temp.: -30°C/+80°C

Industrial oil resistance: UL 1581
Hydrocarbon resistance: UL 1581

Electrical properties

Working voltage: 30V
Impedance: 120Ohm
Transmission speed:
up to 40m: 1Mbit/s
up to 300m:500Kbit/s
up to 600m: 100Kbit/s
up to 1000m: 50Kbit/s

Nominal capacitance: 50pF/m

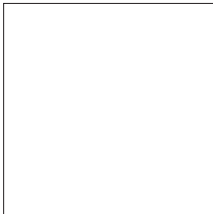
Manufactory requirements

Reference standards: According to EN50254
EN50325 IEC62026
STYLE20236 80°C 30V

Fire behaviour: VW-1(USA) CEI 20-35 IEC60332.1 (EUROPE)

Cod. C-24593

M12/8 POLES FEMALE AXIAL USB CABLE
(length: 2m)



Physical properties

Circuits (Loaded): 5
Color: Black
Gender: male/female
Material (plating termination): tin
Conductor material: tinned copper
Shield material: tinned copper
Outer jacket: Polyurethane
Jacket thickness: 0.23mm min average
Jacket outer dimension: 5.90+/-0.15mm

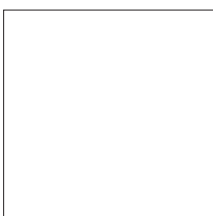
Working temp.: -10°C/+60°C

Electrical properties

Working voltage: 30V
Current Max per contact: 1A
Shielded: yes

Cod. C-24437

M12/8 POLES RADIAL USB "Y" CABLE
(length: 2m)



Physical properties

Circuits (Loaded): 5
Color: Black
Gender: male/female
Material (plating termination): tin
Conductor material: tinned copper
Shield material: tinned copper
Outer jacket: Polyurethane
Jacket thickness: 0.23mm min average
Jacket outer dimension: 5.90+/-0.15mm

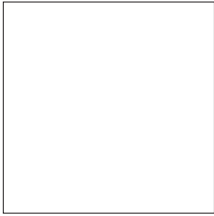
Working temp.: -10°C/+60°C

Electrical properties

Working voltage: 30V
Current Max per contact: 1A
Shielded: yes

Cod. C-AC8132

AC8132 RS232/485 SERIAL CABLE



Physical properties

Conductor lay-up: CEI 20-29 IEC 60228 Class
 Tinned copper - Class 5 - VDE 0295
 Conductor insulation: Expanded Polyolefin - Low
 Capacitance - Colour: DIN 47100
 Shield: Tinned copper braid. Coverage >85%
 Outer jacket: Polyurethane - GREY RAL 7001
 Working temp.: -40°C/+80°C

Electrical properties

Working voltage: 30V
 Test voltage: 1500V
 Nominal capacitance: 35pF/m
 Nominal impedance: 1200ohm

Manufactory requirements

Reference standards: UL (STYLE 20236) - CSA

Fire behaviour:

VW-1(USA) FT1 (CANADA)
 CEI 20-35
 IEC60332.1 (EUROPE)
 Industrial oil resistance:
 CNOMO E.03.04
 150N - NFT 4601/3

Plus your project

Software CodeSys Ready	
Software CodeSys In	
Software N-Design Ready	
Software N-Design In	
Naviop APPs Ready	
NMEA2000 Ready	
NMEA2000 In	
Naviop Cables Ready	✓
Remote Access Ready	
Customer Care	✓
Service Points Basic Access	✓

Cod. C-21589

M12/8 POLES FEMALE RADIAL SUPPLY CABLE (length: 2m)



Physical properties

Conductor lay-up: CEI 20-29 IEC 60228 Class
 6 - VDE 0295
 Conductor insulation: Polyolefin UL 1581 - Colour CEI UNEL00722/2003 or IV-VDE0293
 Outer jacket: Polyurethane mixture - BLACK
 Working temp.: -40°C/+80°C (static installation)

Electrical properties

Working voltage: 300V
 Test voltage: 4000V

Dynamic properties

Minimum bending radius: 6 x 0 cable
 Travel speed: 200m/min max
 Acceleration/deceleration: up to 30m/sec^2
 Chain length: 15m horizontal

only

Flexlife: between 3M and 6M movements

Manufactory requirements

Reference standards: UL758 UL1581
 According to EN50254
 EN50325 IEC62026
 STYLE20236 80°C 30V

Fire behaviour: self-extinguish
 VW-1(USA) FT1 (CANADA)
 CEI 20-35
 IEC60332.1 (EUROPE)

Industrial oil resistance: UL 1581
 Hydrocarbon resistance: UL 1581

Cod. C-21592

"T" DROP CAN SUPPLY CABLE (length: 2m)



Physical properties

Conductor lay-up: CEI 20-29 IEC 60228 Class
 6 - VDE 0295
 Conductor insulation: Polyolefin UL 1581 - Colour CEI UNEL00722/2003 or IV-VDE0293
 Outer jacket: Polyurethane mixture - BLACK
 Working temp.: -40°C/+80°C (static installation)

Electrical properties

Working voltage: 300V
 Test voltage: 4000V

Dynamic properties

Minimum bending radius: 6 x 0 cable
 Travel speed: 200m/min max

Acceleration/deceleration: up to 30m/sec^2

Chain length: 15m horizontal

only
 Flexlife: between 3M and 6M movements

Manufactory requirements

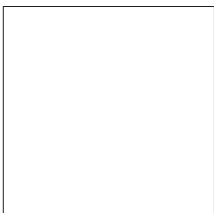
Reference standards: UL758 UL1581
 According to EN50254
 EN50325 IEC62026
 STYLE20236 80°C 30V

Fire behaviour: self-extinguish
 VW-1(USA) FT1 (CANADA)
 CEI 20-35
 IEC60332.1 (EUROPE)

Industrial oil resistance: UL 1581
 Hydrocarbon resistance: UL 1581

Cod. C-23723

M12/5 POLES FEMALE RADIAL SUPPLY CABLE (length: 2m)



Physical properties

Conductor lay-up: CEI 20-29 IEC 60228 Class
 6 - VDE 0295
 Conductor insulation: Polyolefin UL 1581 - Colour CEI UNEL00722/2003 or IV-VDE0293
 Outer jacket: Polyurethane mixture - BLACK
 Working temp.: -40°C/+80°C (static installation)

Electrical properties

Working voltage: 300V
 Test voltage: 4000V

Dynamic properties

Minimum bending radius: 6 x 0 cable
 Travel speed: 200m/min max

Acceleration/deceleration: up to 30m/sec^2

Chain length: 15m horizontal

only
 Flexlife: between 3M and 6M movements

Manufactory requirements

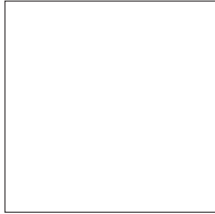
Reference standards: UL758 UL1581
 According to EN50254
 EN50325 IEC62026
 STYLE20236 80°C 30V

Fire behaviour: self-extinguish
 VW-1(USA) FT1 (CANADA)
 CEI 20-35
 IEC60332.1 (EUROPE)

Industrial oil resistance: UL 1581
 Hydrocarbon resistance: UL 1581

Cod. C-23724

M12/4 POLES FEMALE AXIAL SUPPLY
CABLE (length: 2m)



Physical properties

Conductor lay-up: CEI 20-29 IEC 60228 Class
 Tinned copper - Class 5 - VDE 0295
 Conductor insulation: Expanded Polyolefin - Low
 Capacitance - Colour: DIN 47100
 Shield: Tinned copper vraid. Coverage >85%
 Outer jacket: Polyurethane - GREY RAL 7001
 Working temp.: -40°C/+80°C

Electrical properties

Working voltage: 30V
 Test voltage: 1500V
 Nominal capacitance: 35pF/m
 Nominal impedance: 1200hm

Manufactory requirements

Reference standards:
 UL (STYLE 20236) - CSA

Fire behaviour:

VW-1(USA) FT1 (CANADA)
 CEI 20-35
 IEC60332.1 (EUROPE)
 Industrial oil resistance:
 CNOMO E.03.04
 150N - NFT 4601/

Plus your project

- Software CodeSys *Ready*
- Software CodeSys *In*
- Software N-Design *Ready*
- Software N-Design *In*
- Naviop APPs *Ready*
- NMEA2000 *Ready*
- NMEA2000 *In*
- Naviop Cables *Ready*
- Remote Access *Ready*
- Customer Care
- Service Points *Basic Access*

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