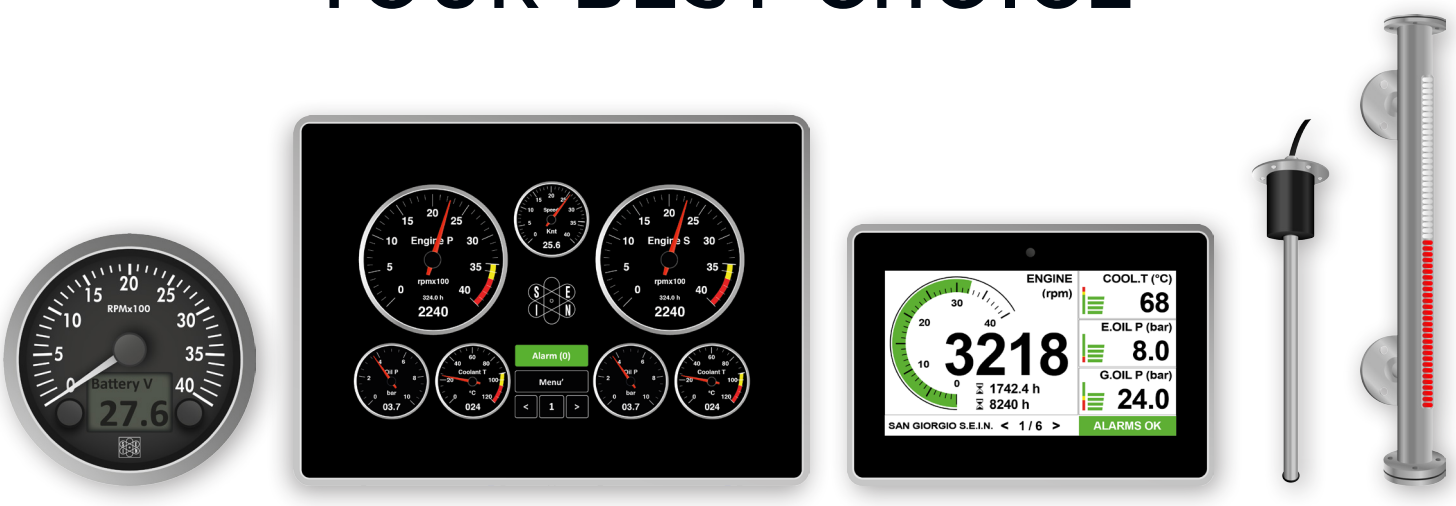
SAN GIORGIO S.E.I.N.

MARINE INSTRUMENTS AND AUTOMATION

SINCE 1960
YOUR BEST CHOICE



Designed and made in **Italy**

SAN GIORGIO S.E.I.N.

Passion for technology

SAN GIORGIO S.E.I.N. designes and manufactures sensors, instruments and automation systems for pleasure and professional naval applications, always looking for the most advanced performace and quality standards. Its wide range of products includes analog and digital electronic instruments for engine and navigation control, fire alarm systems, level senders, rudder/trim angle indicators, special OEM instruments, integrated monitoring and chart plotter navigation systems RINA / SOLAS MED approved.

60's

SAN GIORGIO S.E.I.N. is founded in Genoa in 1960. It designs and manufactures the first marine waterproof electronic instruments, Viking and Apollo line.

70's

The product range is expanded with the first capacitive and reed level sensor in the market and new exhaust gas temperature and engine monitoring control units.

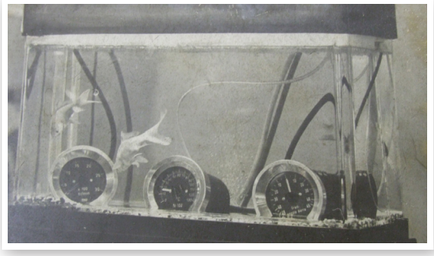
80's

Thanks to the extensive know-how it is chosen by Veglia Borletti as partner for the development and production of the new "Seagull" VSG marine instrument line for the yachts pleasure market.

90's

It designs and presents in advance at Genoa Boat Show the first integrated monitoring system UNS for naval application equipped with microprocessor technology.

1960
Booth at the first Genoa International Boat Show



1969
The first line of waterproof naval instruments

Today

Partner of the main shipyards and engine manufacturers. With the same passion of the last fifty years it designs produce and customizes instruments with the most advanced TFT display technologies and remote IOT control in compliance with new protocols and certification requirements.

Research & Development - Test laboratory

For a more efficient product design and validation and internal Research & Development in 2019 we opened our laboratory available for:

- Complete EMC tests with GTEM cell
- Environmental tests (3 climate chambers, fully automatic)
- Salt spray test
- Functional tests on prototype

PCB Production Plant - Control and functional tests

SAN GIORGIO S.E.I.N. offers an array of testing tools and procedures to design and manufacture products to satisfy high quality standard.

- Electronic microscope for precision visual inspection
- X-Ray machine for deep intra-layer or complex component inspection tool
- Four independent testing centers each of them with Labview integrated testing tool
- Post-reflow AOI System
- SAP software integrates all testing results

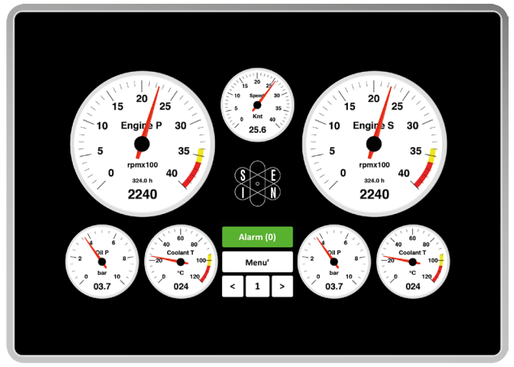
Contents

Engine control systems 4
NMEA2000 instruments 14
OmniLink Line instruments 15
VSG Line instruments 21
Level sensors 24
Professional instruments 34

7” Monitoring and control system

UNS10195

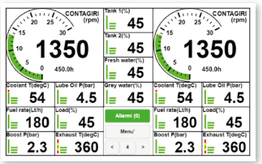
High performance monitoring and control system specifically designed for naval, professional and pleasure boats applications. It offers a new 7” touch screen display optimized for sun visibility, a new design and many possibilities of connection to on-board apparatus and portable devices. The innovative “Flexible Hardware” electronics provides direct acquisition of many measurement sensors without additional signal converters. Three CAN Bus J1939 ports and one NMEA2000 compatible output make it the perfect device to use with multifunction navigation systems. Datalogger functionality with internal SD card and USB log. It can be customized and programmed via LAN, WiFi and USB interface.



NEWS

Customizable pages

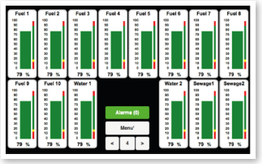
Example of page with analog indicators in day mode with black background



NEWS

Monitoring control

Monitoring up to four engines in day / night mode



Monitoring levels

Monitoring levels and bilges with bar indicator

Technical features

RINA APPROVED | NMEA 2000 | NMEA 0183 | CAN J1939 | DAY NIGHT | 7” | IP65

Dimensions	200 x 143 x 76,1mm - Mounting hole 183 x 135mm
Display	7” TFT LCD, 800 x 480 pixel, high brightness 1000cd, antiglare
Touch screen	Capacitive
CPU and memory	Advanced Hybrid CPU Dual Cortex A9 + FPGA, 1 GB RAM DDR3
Inputs / Outputs	8 x Analog inputs 0-300Ω
	16 x Analog inputs 0-10V / 4-20mA
	8 x Analog inputs NTC 0-100KΩ with autorange
	8 x Analog thermocouple inputs
	6 x Analog inputs 0-36V
	3 x Frequency inputs W alternator / pickup
	8 x Digital ON/OFF inputs, active to ground
	8 x Relay outputs, single contact max 500mA
Communication ports	4 x CAN Bus 2.0B / 1 x Ethernet / 1 x Wifi 802.11bgn
	1 x USB OTG / 1 x NMEA0183 / 1 x RS232 / 1 x RS485
Power supply	9-36V <1A
Environment	0 +55°C (-20 +70°C on demand) - IP65
Accessories	Protective cover for display

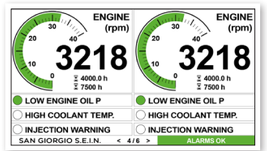
7” Multifunction display

UNS10193

The new multifunction system offers a 7” touch screen display with integrated ambient light sensor and special software designed for visibility in any light and operating condition. A selection of analog inputs and digital outputs allow direct acquisition of measure sensors without any additional signal converters. Two J1939 CAN Bus ports, one also compatible with NMEA2000 standard, can be used to interface multifunction navigation systems. It can be customized and programmed via USB interface.

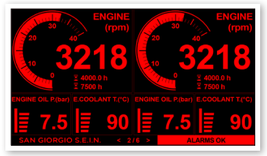
Monitoring control

Monitoring up to two engines



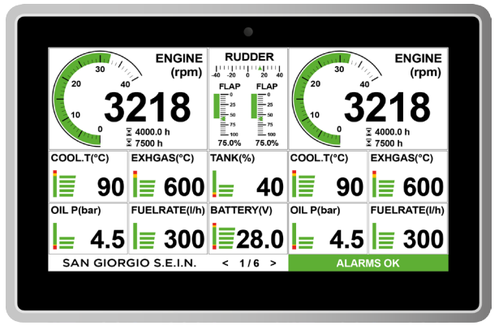
Night mode

Night mode page with digital indicators



Customizable pages

Example of page with bar indicators



Technical features

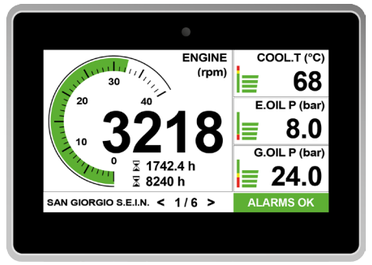
IP65 | USB | 7” | DAY NIGHT | CAN J1939 | NMEA 0183 | NMEA 2000

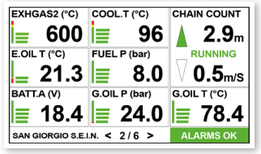
Dimensions	188 x 123 x 69mm
Mounting hole	178 x 114mm
Display	7” TFT LCD, 800 x 480 pixel, high brightness 700cd
Touch screen	Capacitive
Bezel	Grey satin anodized aluminum
	Black satin anodized aluminum
Inputs / Outputs	4 x Analog inputs 0-10V / 4-20mA
	4 x Analog inputs 0-300Ω
	2 x Frequency inputs W alternator / pickup
	5 x Digital inputs / outputs
Communication ports	2 x CAN Bus 2.0B / 1 x NMEA0183
	1 x RS232/485 / 1 x USB OTG
Power supply	9-36V <1A
Operating temperature	-20 +70°C
Protection grade	IP65
Weight	840g
Accessories	Protective cover for display

5” Multifunction display

UNS10192

Multifunction display specifically designed for naval, professional and pleasure boats applications. It offers a 5” touch screen display with integrated ambient light sensor and special software designed for visibility in any light and operating condition. A selection of analog inputs and digital outputs allow direct acquisition of measure sensors without any additional signal converters. Two J1939 CAN Bus ports, one also compatible with NMEA2000 standard, can be used to interface multifunction navigation systems. It can be customized and programmed via USB interface.

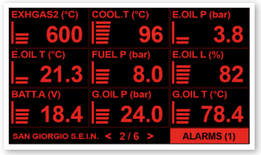




NEWS

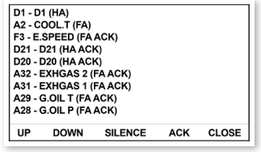
Chain counter

Display of chain position and ascent / descent speed



Customizable pages

Page with digital instruments in night mode



Alarms monitoring

Page with alarms list

Technical features

Dimensions	144 x 100 x 69mm with harness
Mounting hole	135 x 91mm
Display	5” TFT LCD, 480 x 272 pixel, high brightness 900cd
Touch screen	Capacitive
Bezel	Grey satin anodized aluminum Black satin anodized aluminum
Inputs / Outputs	4 x Analog inputs 0-10V / 4-20mA 4 x Analog inputs 0-300Ω 2 x Frequency inputs W alternator / pickup 5 x Digital inputs / outputs
Communication ports	2 x CAN Bus 2.0B / 1 x NMEA0183 / 1 x RS232/485 / 1 x USB OTG
Power supply	9-36V <500mA
Operating temperature	-20 +70°C
Protection grade	IP65
Weight	540g
Environment	IEC60945
Accessories	Protective cover for display

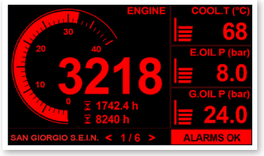
4,3” Multifunction display

UNS10191

Compact monitoring and control system designed to measure the main engine parameters in one compact and easy-to-use instrument. It offers a 4,3” resistive touch screen display. A selection of analog inputs and digital outputs allow direct acquisition of measure sensors without any additional signal converters. One J1939 CAN Bus port can be used to interface multifunction navigation systems.

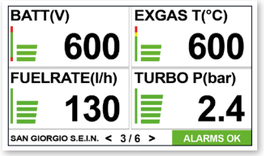
Monitoring control

Monitoring of one engine in night mode



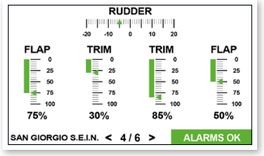
Customizable pages

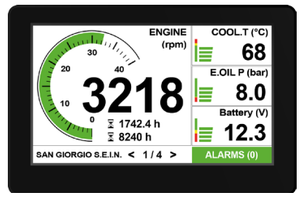
Page with large digital indicators



Monitoring

Page with rudder angle, flap and trim indicators



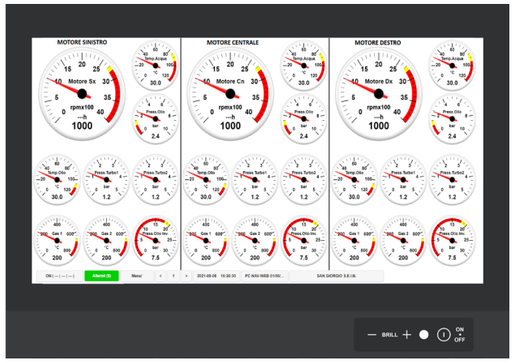


Technical features

Dimensions	118 x 78 x 32mm
Mounting hole	107 x 67mm
Display	4,3” TFT LCD, 480 x 272 pixel, high brightness 700cd
Touch screen	Resistive
Inputs / Outputs	4 x Analog inputs 0-300Ω / PNP output 3 x Analog inputs 0-32V / PNP output 1 x Analog input 0-3V (TA Current) 1 x Frequency input 2 x PNP outputs
Communication port	1 x CAN Bus 2.0B
Power supply	9-36V <500mA
Operating temperature	-20 +70°C
Protection grade	IP64
Weight	200g
Environment	IEC60945

Panel computer

The new series of Panel Computer specifically designed for naval use. It offers a high quality display with 0-100% brightness adjustment. The fanless design and low energy consumption ensure maximum reliability in all operating conditions. Compatible with various tracking and navigation software including our Nav Web HTML 5.



Monitoring

Monitoring up to 4 motors with the possibility of analogue or digital display

Customizable pages

Page with indicators in night mode or day mode

Technical features

Code	UNS12120/15
Dimensions	397,60 x 279,50 x 94,50mm - Mounting hole 381 x 261mm
Display	15,6” TFT LCD, 1920 x 1080 pixel, high brightness 400cd
Touch screen	Capacitive
Format display	16:9
Interfaces	2 x LAN RJ45 / 4 x USB Type A / 1 x RS232-422
Power supply	24V
Operating temperature	-15 +55°C
Protection grade	IP66 Front - IP20 Rear
Weight	4.3Kg

Technical features

Code	UNS12120/21
Dimensions	536 x 358,50 x 78,5mm - Mounting hole 516 x 338,5mm
Display	21” TFT LCD, 1920 x 1080 pixel, high brightness 400cd
Touch screen	Capacitive
Format display	16:9
Interfaces	2 x LAN RJ45 / 4 x USB Type A / 1 x RS232-422
Power supply	24V
Operating temperature	-15 +55°C
Protection grade	IP66 Front - IP20 Rear
Weight	7Kg

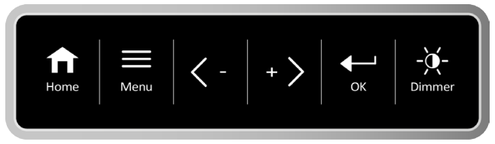
CAN Bus Keyboard

UNS10400

Backlit membrane keyboard specially designed for UNS10195 monitoring and control system.

Technical features

Dimensions	144 x 40 x 25mm
Mounting hole	132 x 28mm
Output	CAN Bus
Connection	M12-5 pin
Environment	-20 +70°C - IP65



Converter module

The system has a selection of analog inputs and digital outputs that allow direct acquisition of measure sensors without any additional signal converters. Two J1939 CAN Bus ports, one also compatible with NMEA2000 standard, can be used to interface multifunction navigation systems. It can be customized and programmed via USB interface.

Technical features

Dimensions	150 x 100 x 60mm
Inputs / Outputs	4 x Analog inputs 0-10V / 4-20mA
	4 x Analog inputs 0-300Ω
	2 x Frequency inputs W alternator / pickup
	5 x Digital inputs / outputs
Communication ports	2 x CAN Bus 2.0B / 1 x NMEA0183 / 1 x RS232/485 / 1 x USB OTG

Engine remote monitoring system

UNS20600

Remote data acquisition system coming from two engines with CAN Bus J1939 protocol interface. Data can be displayed in real time on portable devices using Wi-Fi connection and forwarded to a remote application accessible from web.

Technical features

Dimensions	120 x 122 x 55mm
Inputs	2 x CAN Bus / 1 x NMEA0183
	4 x I/O / 2 x 0-32V
Outputs	Wi-Fi / GPRS GSM
Connection	5 x M12-5 pin
Power supply	12/24V <500mA
Environment	-10 +55°C - IP65

Digital inputs / outputs expansion

UNS10071 / UNS10072

The electronic modules allow the upgrade up to 128 digital inputs/outputs of monitoring systems using a CAN Bus connection. The UNS10071 module reads up to 16 ON/OFF grounded digital inputs. The UNS10072 module provides 16 transistor outputs with a maximum current of 1A.

Technical features

Dimensions	158,7 x 90 x 60mm
Connection	Terminal blocks
Power supply	12/24V

Models

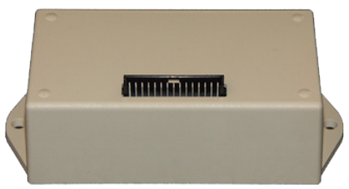
Code	UNS10071
Inputs	16 x ON/OFF / 1 x CAN Bus / 1 x RS485 / 1 x Relay
Code	UNS10072
Inputs	16 x transistor (<1A) / 1 x CAN Bus / 1 x RS485 / 1 x Relay

Monitoring and control unit

RINA APPROVED

UNS10185

The UNS10185 module is the smallest and most compact of our monitoring systems. Thanks to the digital outputs and to the **RINA approval** it can also be used as an alarm and stop system for certified engines. Possibility of hardware and software customization for special applications.



Technical features

Dimensions	145 x 66 x 50mm
Power supply	12/24V / 250mA + outputs
Inputs	1 x Frequency input 5 x Analog inputs 3 x Digital ON/OFF inputs
Outputs	4 x Transistor push-pull, max 1A
Communication ports	1 x CAN Bus + 1 x RS232 / NMEA0183
Weight	500g

Multifunction converter

UNS12200

Multifunction converter equipped with different inputs and two CAN Bus communication ports. It can be used to acquire and convert analog signals from different measure sensors to J1939 or NMEA2000 compatible protocols.

Technical features

Dimensions	133 x 118 x 35mm
Outputs	NMEA2000 / J1939
Connection	2 x Deutsch DTM06-12 pins
Power supply	12/24V
Operating temperature	-20 +70°C
Protection grade	IP65

Models

Inputs	Outputs	Code
6 x Analog / 1 x Frequency / 2 x Digitals	NMEA2000	UNS12200/MX
4 x Analog 10-180Ω	NMEA2000	UNS12200/A
2 x Analog 10-180Ω / 2 x Analog 4-20mA	NMEA2000	UNS12200/AF
6 x Analog / 1 x Frequency / 2 x Digitals	J1939	UNS12200/J

Throttle signal converter

UNS12115/T

Signal converter with 0-5V / 4-20mA throttle input and engine speed command output in J1939 CAN Bus protocol compatible with FPT EVO electronic engines. Other versions on demand.

Technical features

Dimensions	133 x 118 x 35mm
Inputs	0-5V / 4-20mA
Output	1 x CAN Bus J1939
Connection	1 x Deutsch DTM06-12 pins
Power supply	12/24V
Operating temperature	-20 +70 °C
Protection grade	IP65

NMEA2000 Converter

Double engine converter

Double engine converter transforms the J1939 protocol coming from the engine control units in a NMEA2000 signal for the connection of latest generation plotters and/or integrated navigation systems. Installation for two engines does not require configuration.

Technical features

Code	UNS20100	Standard J1939
	UNS20100/MTU	MTU Engine
	UNS20100/MAN	MAN Engine
	UNS20100/FPT	FPT Engine
	UNS20100/CA	CUMMINS Engine
	UNS20100/VP	VOLVO PENTA Engine
Case dimensions	122 x 120 x 55mm	
Inputs	2 x CAN Bus J1939	
Output	1 x NMEA2000	
Connection	3 x M12-5 Pins	
Power supply	12/24V <250mA (J1939)	
Environment	-20 +70°C - IP65	

Single engine converter

The single engine converter reads the main monitoring parameters from an engine control unit and converts them into NMEA2000 output to connect last generation plotters and/or integrated navigation systems. The system comes with two mounting brackets.

Technical features

Code	UNS20660	Standard J1939
	UNS20660/MTU	MTU Engine
	UNS20660/MAN	MAN Engine
	UNS20660/FPT	FPT Engine
	UNS20660/CA	CUMMINS Engine
	UNS20660/VP	VOLVO PENTA Engine
Input	1 x CAN Bus J1939	
Output	1 x NMEA2000	
Case dimensions	93 x 93 x 62mm	
Bolt circle	108mm	
Case material	2 x M12-5 pins	
Power supply	12/24V <500mA	
Operating temperature	0 +55°C	
Protection grade	IP67	

Network Bridge Interface

UNS20650

The system provides power isolation between indipendent CAN Bus / NMEA2000 networks. Thanks to the three leds it allow the control to the CAN Bus line and power supply. The system comes with two mounting brackets in the box.

Technical features

Case dimensions	93 x 93 x 62mm
Bolt circle	108mm
Network ports	2 x CAN Bus NMEA2000
Connection	2 x M12-5 pins
Power supply	12/24V <500mA
Case material	Polycarbonate
Weight	<0,5Kg
Operating temperature	0 +55°C
Protection grade	IP67

NMEA2000 harness

A series of accessories and wiring for connecting Omni Link NMEA2000 instrumentation to standard M12-5pin male and female connectors. Other lenghts available.

CAB20101	CAB20102	CAB20103	CAB20104	CAB20106	CAB20108
Extension cable	“T” Connector	“T” Cable	Terminator	Terminator	Cable
1 x M12 Male	2 x M12 Female	2 x M12 Female	1 x M12 Female	1 x M12 Male	1 x M12 Female
1 x M12 Female	1 x M12 Male	1 x M12 Male			Loose threads

NMEA2000 instrumentation

Multifunction tachometer

The multifunction tachometers with NMEA2000 input have been designed to measure the main engine parameters and are available with a new removable satin aluminum bezel for front mounting.

Technical features

Dimensions	Ø85mm
Input	NMEA2000
Connection	3 x RJ45
Bezel	Aluminum / Black plastic / Chrome

Models

Range	RQ Black Dial	RQ White Dial	CHROME Black Dial	CHROME White Dial
0-3000rpm	VSG12444/N	VSG12144/N	VSG12344/N	VSG12044/N
0-4000rpm	VSG12445/N	VSG12145/N	VSG12345/N	VSG12045/N
0-5000rpm	VSG12450/N	VSG12150/N	VSG12350/N	VSG12050/N

Ø52mm instrumentation

NMEA2000 instrumentation available with removable satin aluminum bezel for front mounting or with removable black plastic bezel for front or flush mounting.

40-120°C	VSG22x40/N	0-5bar	VSG22x63/N	8-16V	VSG22x80/N	0-4/4 Fuel	VSG22x30/N
50-150°C	VSG22x45/N	0-10bar	VSG22x55/N	16-32V	VSG22x85/N	0-4/4 Water	VSG22x92/N
		0-25bar	VSG22x65/N			0-4/4 Waste	VSG22x94/N

Technical features

Dimensions	Ø52mm
Input	NMEA2000
Connection	2 x RJ45
Bezel	Satin aluminum / Black plastic / Chrome
Environment	-20 +70°C - IP66

RINA APPROVED

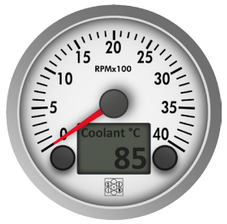
OmniLink instrumentation

Multifunction tachometer

The **RINA approved** tachometers with satin aluminum bezel have been developed to acquire and display all the main engine parameters in a single compact and easy-to-use instrument. Analog, digital and CAN Bus J1939 inputs included.

Technical features

Dimensions	Ø85mm
Inputs	1 x CAN Bus / 1 x NMEA0183
	1 x Frequency / 4 x Analog
	2 x ON/OFF / 1 x Dimmer



Models

Range	RQ Black Dial	RQ White Dial	CHROME Black Dial	CHROME White Dial
0-3000rpm	VSG13444	VSG13144	VSG13344	VSG13044
0-4000rpm	VSG13445	VSG13145	VSG13345	VSG13045
0-5000rpm	VSG13450	VSG13150	VSG13350	VSG13050

Ø52mm instrumentation

Instrumentation available with removable satin aluminum bezel for front mounting or with removable black plastic bezel for front or flush mounting.

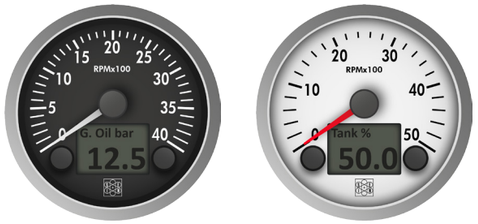
40-120°C	VSG22x40	0-5bar	VSG22x63	8-16V	VSG22x80	0-4/4 Fuel	VSG22x30
50-150°C	VSG22x45	0-10bar	VSG22x55	16-32V	VSG22x85	0-4/4 Water	VSG22x92
		0-25bar	VSG22x65			0-4/4 Waste	VSG22x94

Technical features

Dimensions	Ø52mm
Inputs	CANBus / VDO
Connection	2 x RJ45
Bezel	Satin aluminum / Black plastic / Chrome
Environment	-20 +70°C - IP66

Tachometer J1939 Gateway

The tachometers with satin aluminum bezel add to the analog inputs the Gateway J1939 functionality. Analog inputs signals are converted in J1939 protocol for an easy and quick interface with the other on-board equipment.



Technical features

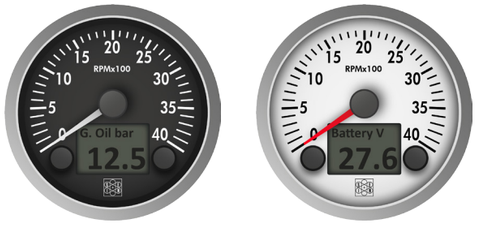
Dimensions	Ø85mm
Analog inputs	Engine coolant temperature
	Engine oil pressure
	Fuel level
Digital inputs	Alternator
	Engine low oil pressure
	Engine high coolant temperature
Connection	3 x RJ45
Environment	-20 +70°C - IP65

Models

Range	RQ Black Dial	RQ White Dial	CHROME Black Dial	CHROME White Dial
0-3000rpm	VSG13444/GJ	VSG13144/GJ	VSG13344/GJ	VSG13044/GJ
0-4000rpm	VSG13445/GJ	VSG13145/GJ	VSG13345/GJ	VSG13045/GJ
0-5000rpm	VSG13450/GJ	VSG13150/GJ	VSG13350/GJ	VSG13050/GJ

Tachometer with M12 connectors

The tachometers have two M12 connectors to measure the main engine parameters in a single compact and easy-to-use instrument. The instrument is available with analog, digital and CAN Bus J1939 inputs.



Technical features

Dimensions	Ø85mm
Inputs VSG13xxx	1 x CAN Bus / 1 x NMEA0183
	1 x Frequency / 4 x Analog
	2 x ON/OFF / 1 x Dimmer
Input VSG13xxx/N	1 x NMEA2000
Connection	1 X M12-5 pins / 1 X M12-12 pins

Models - J1939 CAN Bus and analog sensors inputs

Range	RQ Black Dial	RQ White Dial	CHROME Black Dial	CHROME White Dial
0-3000rpm	VSG13444	VSG13144	VSG13344	VSG13044
0-4000rpm	VSG13445	VSG13145	VSG13345	VSG13045
0-5000rpm	VSG13450	VSG13150	VSG13350	VSG13050

Models - NMEA2000 Input

Range	RQ Black Dial	RQ White Dial	CHROME Black Dial	CHROME White Dial
0-3000rpm	VSG13444/N	VSG13144/N	VSG13344/N	VSG13044/N
0-4000rpm	VSG13445/N	VSG13145/N	VSG13345/N	VSG13045/N
0-5000rpm	VSG13450/N	VSG13150/N	VSG13350/N	VSG13050/N

Engine control panels

OmniLink panels have been developed to offer a compact yet complete solution for both mechanical and electronic motors. The Deluxe panel allows to have two additional Ø52mm instruments dedicated to monitoring the engine oil pressure and engine coolant temperature while maintaining the performance and functionality of the Compact model.

Technical features

Code	QCS30100	Compact panel	Dimensions: 190 x 130mm
	QCS30150	Deluxe panel	Dimensions: 270 x 190mm

Buttons

Ergonomic design flush push buttons for panels. Available with normally open or normally closed contact.

Models

Code	Green	IPD50400/1
	Red	IPD50400/4
	Black	IPD50401/4

Starting key

3-position ignition key lock for panel.

Models

Code	CHA50400
Position	OFF / ON / START
Protection grade	IP66

LED engine control panel

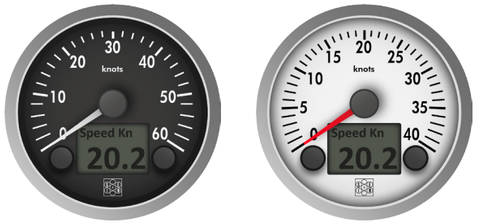
The engine panel with high brightness LED display offers a compact and easy-to-use solution for monitoring marine and industrial engines.

Technical features

Dimensions	180 x 100 x 60mm
Inputs	1 x Engine speed and hour counter / 1 x Engine coolant temperature
	1 x Engine oil pressure / 1 x Battery voltage
	1 x Low pressure and high temperature alarm / 1 x Low battery voltage alarm
	1 x Battery recharge alarm / 1 x Pre-heating
Power supply	12/24V
Protection grade	IP65 front

GPS speed-Log instrument

Multifunction instrument for monitoring the vessel speed with internal GPS and NMEA0183 output.

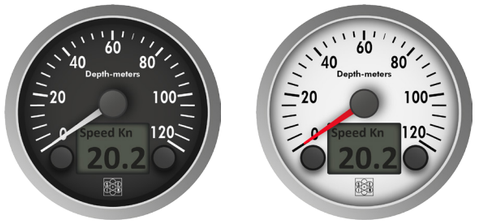


Technical features

Code	0-40Kn	VSG12x06/GPS
	0-60Kn	VSG12x08/GPS
Dimensions	Ø85mm	
Output	NMEA0183	
Environment	-20 +70°C - IP65	

Depth-Log instrument

Instrument for measuring depth and water temperature. Connected to the combined sensor it shows the vessel speed on the display.



Technical features

Code	VSG12x95
Range	0-120m
Dimensions	Ø85mm
Input	NMEA0183
Environment	-20 +70°C - IP65

Speed, depth and temperature sensor

Professional sensors for measuring speed, depth and temperature. Through-hull execution complete with cap for inspection and maintenance.

Technical features

Power supply	12/24V (max28V)

Models

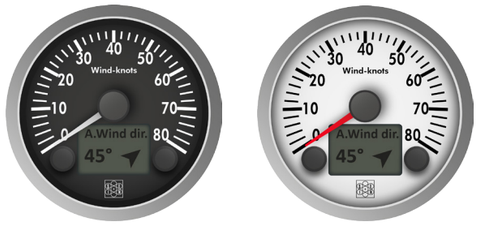
	Outputs	Functions	Code
A	Frequency / Pulses 17.000 p/nm (4,8 Hz/Kn)	Speed sensor	VSG40064
B	NMEA0183 / NMEA2000	Depth sensor	VSG40080
C	NMEA0183	Speed / Depth / Temperature sensor	VSG40081

MeteoLink wind speed instrument

Wind speed monitoring instrument displaying a wide range of weather and navigation parameters on the display. Compatible with our VSG40065 combined sensor.

Technical features

Dimensions	Ø85mm
Input	NMEA2000
Data displayed	Apparent wind on dial
	Apparent and real direction
	Apparent and real wind on display
	Air temperature / Air pressure
	Speed boat
	Latitude and longitude



Models

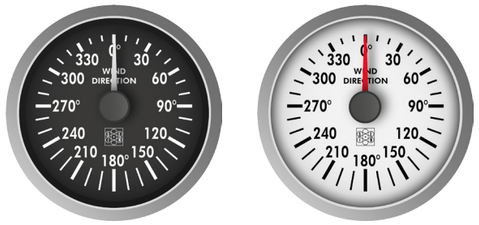
Range	RQ Black Dial	RQ White Dial	CHROME Black Dial	CHROME White Dial
0-80Kn	VSG12416/N	VSG12116/N	VSG12316/N	VSG12016/N

MeteoLink wind direction instrument

Instrument for monitoring the wind direction on 360°. Compatible with our VSG40065 combined sensor.

Technical features

Dimensions	Ø85mm
Range	0-360°
Input	NMEA2000
Environment	-20 +70°C - IP66



Models

Range	RQ Black Dial	RQ White Dial	CHROME Black Dial	CHROME White Dial
0-360°	VSG12417/N	VSG12117/N	VSG12317/N	VSG12017/N

Weather and navigation sensor

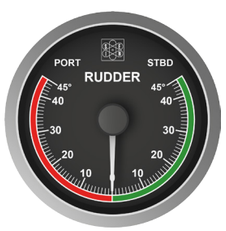
Combined electronic sensor with GPS that allows to measure true and apparent wind speed and direction, barometric pressure, air temperature, vessel speed and direction. NMEA2000 and NMEA0183 outputs.

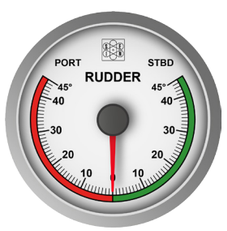
Technical features

Code	VSG40065
Range	Wind speed 0-78Knots / Wind direction 0-360°
	Barometer 300-1100mBar / Temperature -40 +55°C
	Remote compass 0-360° / Inclinometer ±50°
Outputs	NMEA2000 and dedicated cable / NMEA0183

Ø85mm instrumentation

The OmniLink Line rudder angle indicator Ø85mm is compatible with 10-180Ω, 0-1kΩ, 4-20 mA sensors and is able to self-configure in master or slave mode.





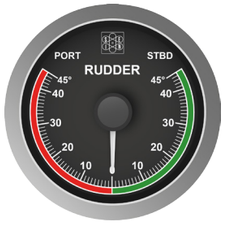
Technical features

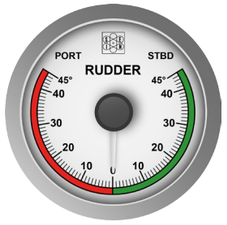
Dimensions	Ø85mm
Inputs	CAN Bus / 4-20mA / 0-1 KΩ
Power Supply	12/24V
Connection	2 x Terminal blocks
Environment	-20 +70°C - IP66

Models

Range	RQ Black Dial	RQ White Dial	CHROME Black Dial	CHROME White Dial
± 45°	VSG12496	VSG12196	VSG12396	VSG12096

Ø52mm instrumentation





Technical features

Dimensions	Ø52mm
Input VSG22x96	1kΩ
Inputs VSG22x96/V	CAN Bus / 10-180Ω
Power Supply	12/24V
Connection	1 x RJ45 (2 x RJ45 Slave)

Models

Range	RQ Black Dial	RQ White Dial	CHROME Black Dial	CHROME White Dial
± 45° Master	VSG22496	VSG22196	VSG22396	VSG22096
± 45° Master	VSG22496/V	VSG22196/V	VSG22396/V	VSG22096/V
± 45° Slave	VSG22497	VSG22197	VSG22397	VSG22097

Rudder angle sensor

The rudder angle sensor is made of a high resistance polymeric case and a selected potentiometer that provides high reliability and long operating life.

Technical features

Code	VSG40043
Output	1kΩ
Range	±20° - ±100°
Power supply	12/24V

Tachometer

The VSG series tachometers with LCD hour meter and DirectDigital stepper motor technology on 240° are available with a removable black plastic bezel for front mounting or chromed brass bezel.

Technical features

Dimensions	Ø85mm
Inputs	Pick-Up / W
Backlighting	Red / White light LED
Connection	Terminal block

Models

Range	RQ Black Dial	RQ White Dial	CHROME Black Dial	CHROME White Dial
0-3000rpm	VSG10444/x	VSG10144/x	VSG10344/x	VSG10044/x
0-4000rpm	VSG10445/x	VSG10145/x	VSG10345/x	VSG10045/x
0-5000rpm	VSG10450/x	VSG10150/x	VSG10350/x	VSG10050/x

Ø52mm instrumentation

Temperature instruments, pressure instruments, voltmeters and level indicators for sensors with Veglia or VDO calibration. Available with a removable black plastic bezel for front mounting or chromed brass bezel.

40-120°C	VSG20xxx	0-5bar	VSG20xxx	8-16V	VSG20xxx	0-4/4 Fuel	VSG20xxx
50-150°C	VSG22xxx	0-10bar	VSG20xxx	16-32V	VSG20xxx	0-4/4 Water	VSG20xxx
		0-25bar	VSG20xxx			0-4/4 Waste	VSG20xxx

Technical features

Dimensions	Ø52mm
Inputs	VDO / Veglia
Connection	3 x fast-on
Bezel	Black plastic / Chrome
Environment	-20 +70°C - IP66

Pressure sensors

RINA APPROVED

1 pole

One pole pressure sensors available in 0-3bar, 0-5bar, 0-10bar and 0-25bar ranges.

Insulated return

Insulated return pressure sensors available in 0-3bar, 0-5bar, 0-10bar and 0-25bar ranges.

1 pole + alarm

Pressure sensors one pole + alarm available in 0-5bar, 0-8bar and 0-10bar ranges.

Technical features

Resistance	10-184Ω / 240-30Ω
Threading	On demand
Connection	1 pole / Insulated return / 1 pole + alarm
Nominal voltage	6/24V
Case material	Iron zinc plated
Operating temperature	-25 +100°C

Others ranges and threadings available

Pressure switch

RINA APPROVED

1 pole

One pole pressure switches available in 0,3bar, 0,5bar and 0,8bar ranges.

Insulated return

Insulated return pressure switches with adjustable alarm threshold available in 0,2-2,5bar and 5-50bar ranges.

Technical features

Threading	On demand
Connection	1 pole / Insulated return
Alarm	Close when the pressure drops
Nominal voltage	6/24V
Max load	5W
Operating temperature	-25 +100°C

Others ranges and threadings available

RINA APPROVED

Temperature sensors

1 pole

One pole temperature sensors available in 0-120°C and 0-150°C ranges.

Insulated return

Insulated return temperature sensors available in 0-120°C and 0-150°C ranges.

1 pole + alarm

One pole temperature sensors + alarm available in 0-120°C and 0-150°C ranges.

Technical features

Resistance	287-22Ω / 301-23Ω / 511-19Ω
Threading	On demand
Connection	1 pole - Insulated return / 1 pole + alarm
Nominal voltage	6/24V
Case material	Brass
Operating temperature	-40 +150°C

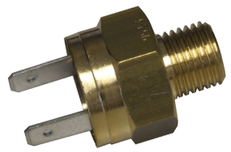
Others ranges and threadings available

RINA APPROVED

Temperature switch

1 pole

One pole temperature switches available in different alarm thresholds and threadings.



Insulated return

Insulated return temperature switches available in different alarm thresholds and threadings.

Technical features

Threading	On demand
Connection	1 pole / Insulated return
Alarm	Close when the temperature rise
Nominal voltage	6/24V
Max load	5W
Operating temperature	-40 +120°C

Others ranges and threadings available

VSG level sensor

Specifically designed for marine use and entirely made in stainless steel AISI316. The vertical level sensor has many details that make it unique on the market. Compatible with fuel, diesel and water. Standard electronic calibrations are VSG (300-10Ω), european (10-180Ω), tubular (0-90Ω), american (240-30Ω) or VOLVO EVC compatible.

Models

Code	VSG407xx	VSG407xx/V	VSG407xx/VF	VSG407xx/VP*	VSG407xx/VT	VSG407xx/A
Output	300-10Ω	10-180Ω	10-180Ω	3-180Ω	90-0Ω	240-30Ω

Technical features

Flange	Ø70mm	Ø70mm	1" 1/4 BSP	Ø70mm	Ø70mm	Ø70mm
Flange holes	5 holes	5 holes	Ø35mm	5 holes	5 holes	5 holes
Bolt circle	Ø54mm	Ø54mm	-	Ø54mm	Ø54mm	Ø54mm
Float	Ø35mm	Ø35mm	-	Ø35mm	Ø35mm	Ø35mm
Operating temp.	-25 +70°C	-25 +70°C	-25 +70°C	-25 +70°C	-25 +70°C	-25 +70°C

* Also available in Ø100mm flange and Ø80mm bolt circle

Other lenghts and/or calibration on demand

Level sensor with CAN Open output

Level sensor with CAN Open output for diesel and water in AISI 316 stainless steel material.

Technical features

Code	VSG40697/xxC
Output	CAN Open
Flange	Ø70mm - 5 holes
Float	Ø35mm - NBR
Connection	M12-5 pins
Protocol	CAN Open Node ID: 126 (diesel) / 127 (water) PDO: 0x180h + Node ID Speed: 250Kbs Heartbeat: 1 second

Other lenghts and/or calibration on demand

RINA APPROVED

TIL vertical mounting level sensor

RINA approved vertical level sensor in stainless steel designed for marine use. Its several features make it unique in its category. It is possible to add 4 alarm contacts for low and/or high level. Compatible with fuel, diesel and water.

Technical features

Output	6800Ω (Pieno) - ∞ (Vuoto)
Flange	Ø100mm - 6 holes
Bolt circle	Ø85mm
Float	Ø45mm - AISI 316 Stainless steel
Mounting	Vertical
Operating temperature	-25 +70°C

Models

Lenght	0 contact	1 contact	2 contacts	3 contacts	4 contacts
0..1000mm	TIL40335	TIL40335/1	TIL40335/2	TIL40335/3	TIL40335/4
1001..2000mm	TIL40336	TIL40336/1	TIL40336/2	TIL40336/3	TIL40336/4
2001..3000mm	TIL40337	TIL40337/1	TIL40337/2	TIL40337/3	TIL40337/4

Other lenghts and/or calibration on demand

RINA APPROVED

TIL side mounting level sensor

Professional level sensor for side installation with **RINA approval** designed for marine use in AISI 316 stainless steel material and high resolution reed. It is possible to add up to 4 alarm contacts for low and/or high level. Compatible with fuel, diesel and water.

Technical features

Output	ON/OFF
Flange	Ø100mm - 6 holes
Bolt circle	Ø85mm
Float	Ø45mm - AISI 316 Stainless steel
Mounting	Side
Operating temperature	-25 +70°C

Models

Lenght	0 contact	1 contact	2 contacts	3 contacts	4 contacts
0..1000mm	TIL40335/90	TIL40335/91	TIL40335/92	TIL40335/93	TIL40335/94
1001..2000mm	TIL40336/90	TIL40336/91	TIL40336/92	TIL40336/93	TIL40336/94
2001..3000mm	TIL40337/90	TIL40337/91	TIL40337/92	TIL40337/93	TIL40337/94

Other lenghts and/or calibration on demand

Pressure level sensor

RINA APPROVED

Submersible pressure level sensors compatible with fresh water, grey water and diesel. Continuous level measurement with accuracy of 0,5% at full scale.

Technical features

Output	2 wires 4-20mA
Compatible fluids	Fresh water / Waste water / Diesel
Connection	Ø7,5mm polyethylene cable
Sensor type	Piezo-electric
Accuracy	0,5% full scale
Environment	0 +80°C - IP68

Models

Range	Connection	Output	Power supply	Code
0-1000mm	Cable	4-20mA	12/24V	TMA40427/1
0-2000mm	Cable	4-20mA	12/24V	TMA40427
0-3000mm	Cable	4-20mA	12/24V	TMA40427/3
Fixing rod for pressure level sensors				MET80500

Other lenghts and/or calibration on demand

NMEA2000 level sensor

NMEA2000 level sensors available with 1 meter cable and M12-5 pins male connector. Circuit selector to customize the address (instance).

Technical features

Output	NMEA2000
Flange	Ø70mm - 5 holes
Float	Ø35mm - NBR
Converter dimensions	80 x 60 x 30mm
PGN NMEA2000	127505

Models

Code	VSG407xx/NF	VSG407xx/NW	VSG407xx/NG	VSG407xx/NB
Function	Fuel	Fresh water	Waste water	Black water
Fluid ID NMEA2000	0	1	2	5

Other lenghts and/or calibration on demand

Pressure level sensor

RINA APPROVED

Pressure level sensors for external installation, compatible with fresh water, grey water and diesel. Continuous level measurement with 0,5% accuracy of full scale. Two-wire 4-20mA output.

Technical features

Output	2 wires 4-20mA
Compatible fluids	Fresh water / Waste water / Diesel
Sensor type	Piezo-electric
Accuracy	0,5% Full scale

Models

Range	Outputs	Power supply	Code
0-1000mm	4-20mA	12/24V	TMA40428/1
0-2000mm	4-20mA	12/24V	TMA40428/2
0-3000mm	4-20mA	12/24V	TMA40428/3

Other lenghts and/or calibration on demand

4-20mA level sensor

Level sensors in AISI 316 stainless steel with 4-20mA output in box with 1 meter of cable and external converter.

Technical features

Code	VSG407xx/20
Output	4-20mA
Flange	Ø70mm - 5 holes
Float	Ø35mm - NBR
Converter dimensions	80 x 60 x 30mm
Cable lenght	1m
Power supply	12/24V

Other lenghts, contacts and/or calibration on demand

Level switch

RINA APPROVED

Level switches with voltage-free reed contacts, positioned according to customer specifications anywhere along the sensor height. Maximum load 200mA.

Vertical level switch

Models

Lenght	1 contact	2 contacts	3 contacts	4 contacts
0..1000mm	TIL40355	TIL40360	TIL40365	TIL40370
1001..2000mm	TIL40354	TIL40361	TIL40366	TIL40367

Side level switch

Models

Lenght	1 contact	2 contacts	3 contacts	4 contacts
0..1000mm	TIL40355/90	TIL40360/90	TIL40365/90	TIL40370/90
1001..2000mm	TIL40354/90	TIL40361/90	TIL40366/90	TIL40367/90

Bilge level switch

Vertical level switches for high level bilge alarm with normally open (N.O.) contact that closes in case of alarm. Fixing flange Ø70mm with 5 holes. Available with vertical, side mounting and calmer.

Vertical bilge level switch

Models

Lenght	Mounting	Note	Code
100mm	Vertical	-	TIL40682
100mm	Vertical	Calmer	TIL40682/C

Side bilge level switch

Models

Lenght	Mounting	Note	Code
100mm	Side	-	TIL40682/L
100mm	Side	Calmer	TIL40682/LC

Compact level switch

Plastic compact level switch with normally open or closed contact adjustable depending on float mounting. Maximum voltage 250Vac 200Vdc, 50w, 1 Ampere.

Technical features

Code	VSG40059/1
Threading	M12x1
Contact type	N.C. o N.O.
Lenght	51.5mm - Float: Ø25mm
Cable	200cm

Static level switch

Static level switch available with three contacts N.O. (Normally open) in platinum suitable for use in black and waste waters. Contacts heights on demand.

Technical features

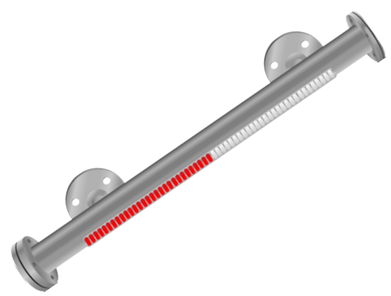
Code	TIL40368
Flange	Ø100mm - 6 holes
Nominal current	1A
Power supply	24V
Operating temperature	-25 +70°C

Visual level sensor

Visual level sensors for water and fuel showing the current level with red and white coloured paddles. The magnetic coupling avoids the use of electronic circuitry and does not require any power supply.

Technical features

Compatible fluids	Fresh water / Oil / Diesel
Float TIL40352	TIL10003 (Ø26mm - H:225mm)
Float TIL40353	TIL10003/1 (Ø50mm - H:300mm)
Operating temperature	-25 +70°C



Models

Range	Diameter	Optional outputs	Power supply	Code
0-3000mm	1”	ON/OFF / 4-20mA	12/24V	TIL40352
0-3000mm	2”	ON/OFF / 4-20mA	12/24V	TIL40353
Bistable alarm contact for 1” visual level				TIL10002/1
Bistable alarm contact for 2” visual level				TIL10002

Level sensor with indicator

Visual level sensor in AISI 316 stainless steel with internal indicator equipped with battery and backlit dial.

Technical features

Code	TIL40321/xx
Flange	Ø100mm - 6 holes
Bolt circle	80mm
Float	Ø35mm - NBR
Operating temperature	-25 +70°C
Level sensor lenghts	On demand

Signal converter

Signal converters for input from TIL or VDO reed level sensor and multiple outputs to drive level instruments and automation systems. Zero and full scale adjustment. Available with ABS case and DIN bar installation.

Technical features

Dimensions	120 x 101 x 35mm
Case material	ABS
Power supply	12/24V
Operating temperature	-20 +70°C

Models

Inputs	Outputs	Code
10-180Ω	CANopen	COV13010VDO
10-180Ω	0-1V / 4-20mA	COV13020VDO
Serie TIL	0-1V / 4-20mA	COV13020/L
4-20mA	0-1V / 4-20mA	COV13020/SL

Converter for level sensors (VOLVO EVC)

UNS12150

Converter designed for the interface of pressure level sensors with VOLVO EVC. 4-20mA input and 10-180Ω output.

Technical features

Dimensions	133 x 118 x 35mm
Input	4-20mA
Output	10-180Ω
Power supply	9/32V
Environment	-25 +70°C - IP65

NMEA2000 converter

Converter developed for fuel level sensors with 10-180Ω calibration and NMEA2000 output. Available with level sensor cable of lenght L=1m.

Technical features

Input	Sensor 10-180Ω
Output	NMEA2000
Converter dimensions	80 x 60 x 30mm
Bolt circle	92mm
Case material	ABS
Protection grade	IP65
Cable lenght	1m

Models

Code	UNS20800/F	UNS20800/W	UNS20800/G	UNS20800/B
Function	Fuel	Fresh water	Waste water	Black water
Fluid	0	1	2	5

4-20mA converter

Converter developed for fuel level sensors with 10-180Ω input and 4-20mA output. Available with level sensor cable of lenght L=1m.

Technical features

Code	COV13040
Input	Sensor 10-180Ω
Output	4-20mA
Converter dimensions	80 x 60 x 30mm
Bolt circle	92mm
Case material	ABS
Protection grade	IP65
Cable lenght	1m

Number of contacts on demand

Fuel consumption instrument + sensors

Professional diesel flow sensors for the consumption monitoring of marine and industrial diesel engines. Unlike the standard propeller meters, the volumetric technology of rotary grants max error <1%, high accurancy even at very low flow rate, reduction of cavitation errors, less dependence on viscosity and temperature, high vibration resistance.

Models

Maximum flow	Continuous flow	Threading	Sensor code	Complete kit code
80 l/h	50 l/h	G 1/8”	TPO40191	ITC12287/04
200 l/h	135 l/h	G 1/4”	TPO40192	ITC12287/08
400 l/h	400 l/h	G 3/4”	TPO40194	ITC12287/10
600 l/h	400 l/h	G 3/4”	TPO40194	ITC12287/15
1500 l/h	1000 l/h	G 1”	TPO40195	ITC12287/20

Instrument technical features

Dimensions	Ø85mm
Inputs / Outputs	1 x CAN Bus SAE J1939 / 1 x NMEA0183 / 2 x TPO Sensors / 1 x Dimmer
Max error	± 1%

Sensor technical features

Maximum flow	Continuous flow	Minimum flow	Maximum pressure	Code
80 l/h	50 l/h	1 l/h	2500 kPa	TPO40191
200 l/h	135 l/h	4 l/h	1600 kPa	TPO40192
400 l/h	400 l/h	10 l/h	1600 kPa	TPO40194
600 l/h	600 l/h	10 l/h	1600 kPa	TPO40194
1500 l/h	1500 l/h	30 l/h	1600 kPa	TPO40195

Flow sensor / switch

The sensor is low consumption and maintenance free solution for the water flow detection. The product has an ON/OFF output with adjustable threshold as well as a frequency output for a continuous flow measurement.

Technical features

Code	TPO40064
Outputs	1 x ON/OFF (NPN-PNP)
	1 x Frequency
Threading	G1” A (Nipple 38mm)
Minimum flow detected	0,2m/s
Environment	-25 +85°C - IP68

Fire detection control unit

RINA approved fire detection control unit with 8 independent zones, each connected to a maximum of 4 sensors and equipped with all the required functionalities such as backup power input, mute / restore and ship alarm, fault detection and exclusion areas for maintenance.

Technical features

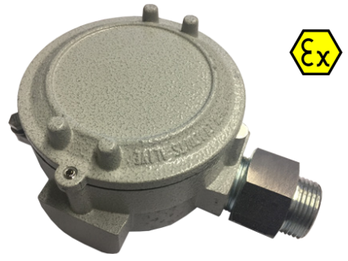
Code	Outputs: 4 x NC / C / NO	CAL10252
	Output: NMEA0183	CAL10252/N
Dimensions	160 x 101mm	
Sensors	32	
Connection	4 x 8 Terminal blocks	

Gas detection sensor

The device has the capacity of detecting the presence of various types of explosive and CO2 toxic gasses. The sensor is managed by an electronic microprocessor that supplies an alarm signal to the control and monitoring unit and also allows an execution of a self-diagnosis and automatic calibration.

Technical features

Code	Petrol vapor detector	TGD40618
	LPG detector	TGD40618/G
	Carbon monoxide detector	TGD40618/CO
Dimensions	Ø100mm	
Environment	-10 +60°C - IP66 / IP67	



Fire smoke sensor

Smoke detector with integrated heat sensor, ideal for all the applications that require the detection of both smoke and heat. The detector is provided with a status LED that indicates the fault condition.

Technical features

Dimensions	Ø102mm
Remote alarm	100mA @ 24 VDC (open collector)
Alarm LED	Red

Models

Description	Note	Power supply	Code
Optical fire detector MED with base 1 relè	Stand alone	12/24V	TIF40916
Optical fire detector MED with base 2 relè	For CAL10252	24V	TIF40916/D
Temperature optical fire detector MED with base 1 relè	Stand alone	12/24V	TIF40916/T
Temperature optical fire detector MED with base 2 relè	For CAL10252	24V	TIF40916/DT
Temperature fire detector MED with base 1 relè	Stand alone	12/24V	TIF40930
Temperature fire detector MED with base 2 relè	For CAL10252	24V	TIF40930/D

Round rudder angle indicator

MED APPROVED

Professional analog rudder angle indicator with **MED approval** available for standard panel installation. Compatible with our TAB sensors as well as CAN Bus and 4-20mA signals.

Code	IAB20080	IAB20100	IAB11994
Dimensions	Ø80mm	Ø100mm	Ø120mm
Range	±45°	±45°	±45°
Power supply	12/24V	12/24V	12/24V

Technical features

Inputs	CAN Bus / 4-20mA / 0-1KΩ
Backlighting	Red LED (dimmable)
Dial color	Black / White
Environment	-20 +70°C - IP67

Round rudder angle indicator

Professional analog rudder angle indicator available for standard panel installation. Compatible with our TAB sensors as well as CAN Bus and 4-20mA signals.

Code	IAB11914	IAB10591	IAB12594
Dimensions	Ø80mm	Ø100mm	Ø100mm
Range	±45°	±45°	±45° PORT / STBD
Input	Transducer	-	0-5V
Power supply	12/24V	12/24V	12/24V

Technical features

Backlighting	Red LED (Dimmable)
Dial color	Black
Environment	-20 +70°C - IP67

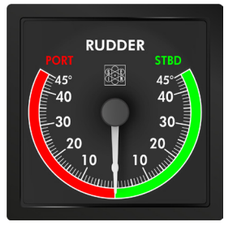
MED APPROVED

Square rudder angle indicator

Professional analog rudder angle indicator with **MED approval** available for standard panel installation. Compatible with our TAB sensors as well as CAN Bus and 4-20mA signals.

Technical features

Inputs	CAN Bus / 4-20mA / 0-1 KΩ
Connection	2 x 4 terminal blocks
Backlighting	Red LED (dimmable)
Alarm lamp	1 x Red LED
Calibration	Rear button activation
Protection grade	IP67



Models

Range	Dimensions	Power supply	Code
±45°	72 x 72mm	12/24V	IAB17272
±45°	96 x 96mm	12/24V	IAB19696
±45°	144 x 144mm	12/24V	IAB1444

Rudder angle sensor

Rudder angle transmitters designed to be easily installed and to operate for a long time in professional applications. The compact standard sensor TAB40205 is suggested for applications up to medium vessels.

Models

TAB40205/MED	Potentiometer	MED
TAB40205	Potentiometer	
TAB40205/20	Potentiometer (4-20mA)	

Technical features

Output	0-1kΩ
Power supply	12/24V
Protection grade	IP66

Rudder angle transmitters designed for naval and professional applications. Two rudder signal amplifiers are available with IAB line instrument output and auxiliary 4-20mA output for automation system.

Models

TAB40204	Potentiometer (Heavy-duty)	MED
TAB40210	Rudder sensor with set point	
TAB40234	Potentiometer (Heavy-duty)	MED

Technical features

Output	0-1kΩ
Power supply	12/24V
Protection grade	IP65

Flap angle position indicator

Professional instruments for flap angle measuring suitable for connection with our TAF sensors. Microprocessor technology and new LED backlighting system with electronic control. Available in the scale -2° / +12°.

IAF11919	IAF11919/20
Ø80mm	Ø80mm
Input: TAF40209	Input: 4-20mA

IAF11938	IAF11938/20
Ø100mm	Ø100mm
Input: TAF40209	Input: 4-20mA

Flap angle position sensor

Flap angle transducers available with an installation kit with box and return spring.

Technical features

Code	TAF40209	Output: 0-1V
	TAF40209/20	Output: 4-20mA
Range	25 - 100°	

Angular position instrument

Professional instrument for measuring the angular position on 0-360° in the dimension Ø100mm. Available with 0,5-4,5V input and 12/24V power supply.

Technical features

Code	IPA10540
Range	0-360°
Environment	-20 +70°C - IP67

Angular position transmitter

360° angular position transmitter with 0,5-4,5V output. It can control up to a maximum of two instruments.

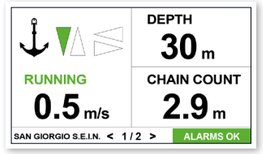
Technical features

Code	TPA40581
Power supply	12/24V
Protection grade	IP67

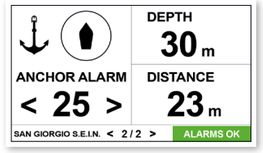
4,3” Chain counter panel

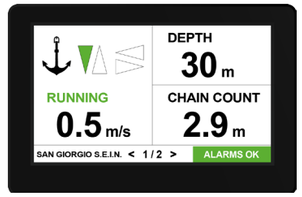
Chain counter panel compatible with ON/OFF sensors. It measures the chain lowered (vertical and horizontal), the ascent / descent speed and if connected to the NMEA2000 network it displays the depth of the seabed and calculates the anchor alarm.

Chain
Display of chain position and ascent / descent speed



Alarm chain
Display of the anchor position alarm threshold



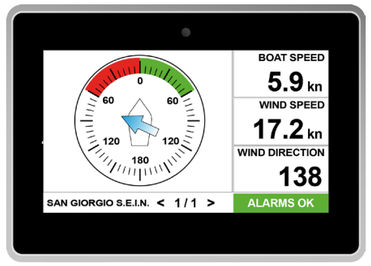


Technical features

Dimensions	118 x 78 x 32mm
Mounting hole	107 x 67mm
Display	4,3” TFT LCD, 480 x 272 pixel, high brightness 700cd
Touch screen	Resistive
Power supply	9-36V <500mA
Environment	-20 +70°C - IP64

5” Multifunction display

System designed to display wind speed and direction on a 5 ”color display with integrated brightness sensor and special software designed for visibility in any light and operating condition. Input from physical sensors and NMEA2000 sensors.



Technical features

Dimensions	144 x 100 x 69mm - Mounting hole 135 x 91mm
Display	5” TFT LCD, 480 x 272 pixel, alta luminosità 900cd
Touch screen	Capacitive
Bezel	Grey satin anodized aluminum Black satin anodized aluminum
Communication ports	2 x CAN Bus / 1 x NMEA2000 / 1 x USB OTG
Power supply	9-36V <500mA
Environment	-20 +70°C - IP65
Weight	540g
Accessories	Protective cover for display

Wind direction indicator

Ø100mm wind direction indicator with embedded synchro motor for rotation point. 360° scale, 0,5-4,5V input and 12/24V power supply.

Technical features

Code	ANM12063
Dimensions	Ø100mm
Input	0,5-4,5V
Range	0-360°
Power supply	12/24V
Operating temperature	-20 +70°C
Protection grade	IP67

Wind speed indicator

Ø100mm wind speed indicator with double measuring in knots and km/h. Scale on 240° and 12/24 power supply.

Technical features

Code	ANM10062
Dimensions	Ø100mm
Range	0-140Km/h / 0-80Kn
Inputs	TAN40136/1 / TAN40139
Power supply	12/24V
Operating temperature	-20 +70°C
Protection grade	IP67

Wind speed and direction indicator

Combined speed (on LCD display) and wind direction for professional, naval and industrial applications. The product is associated with our TAN40136 combined professional wind speed and direction transducer.

Technical features

Code	ANM10013/1
Dimensions	Ø120mm
Output	NMEA0183
Range	0-360° / 0-99Kn
Power supply	12/24V
Operating temperature	-20 +70°C
Protection grade	IP67

Wind speed and direction sensor

Combined professional wind speed and direction transducer. Anemometric operating with “hall effect”, wind direction with three winding potentiometer.

Code	TAN40136/1 Speed (1Hz/Knots) + Direction (0,5-4,5V on 360°)
Range	0-100Knots / 0-360°

Combined professional wind speed transducer. Anemometric operating with hall effect. Compatible with all wind speed and direction instruments.

Code	TAN40139 Speed (1Hz/Knots)
Range	0-100Knots

Weather instrument

Professional instruments for measuring the temperature, atmospheric pressure and relative air humidity. “DirectDigital” microprocessor technology.

Technical features

Dimensions	96 x 96mm
Environment	-20 +70°C - IP67

Models

Range	Description	Code
-20 +80°C	Temperature instrument	TAE19696/A
800-1200mbar	Barometer	BAR19696
0-100%	Hygrometer	IGR19696
0-80Knots	Anemometer	ANM19696
0-360°	Wind direction	ANM19696/D

Weather sensor

Transmitters for measuring the relative humidity, temperature and 800-1200mbar pressure in critical climate control applications.

Technical features

Code	ANM10101
Range	0-95% / 0 +50°C
Outputs	2 x 4-20mA
Power supply	12/24V
Case material	Polycarbonate
Protection grade	IP67

Technical features

Code	TMA40429
Range	800-1200mbar
Output	4-20mA
Power supply	12/24V
Operating temp.	0 +70°C
Protection grade	IP65

Temperature instrument

Temperature instrument with “DirectDigital” technology allows to combine in the same product the analog look and the digital accuracy and reliability. New LED dimmable backlighting.

Technical features

Code	TAS12610
Dimensions	Ø52mm
Input	Pt100
Range	-20 +80°C
Power supply	9/32V

Pyrometer

Pyrometer with “DirectDigital” technology allows to combine in the same product the analog look and the digital accuracy and reliability. New LED dimmable backlighting.

Technical features

Code	Thermocouple K input	TGS12906/K
	Thermocouple K input	TGS12906/J
Dimensions	Ø52mm	
Range	0-800°C	
Power supply	9/32V	

Digital temperature instrument and pyrometer

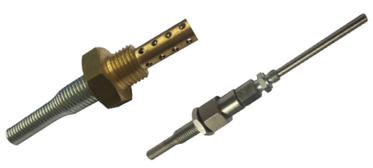
The REG11659 digital pyrometer based on a microprocessor is characterized by remarkable regulation accuracy. It also features the extended range power supply 24 to 230V AC/DC with galvanic isolation.

Technical features

Code	REG11659/1
Dimensions	51 x 51 x 90mm - Mounting hole 46 x 46mm
Range	-50 +750°C
Input	1 x Thermocouple J / K / PT100
Output	2 x ON/OFF (programmable thresholds)

Temperature sensors

Temperature, Pt100, NTC and SS141 sensors available with insulated poles and environment. J or K thermocouples sensors for exaust temperature control.



Technical features

Type	Pt100 / NTC SS141 / Thermocouple
Threading	On demand

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Propeller revolution indicator system

Propeller revolution indicator

Propeller revolution indicator system can be equipped with one or more Ø100mm instruments for a redundant indication or for vessels not equipped with an electronic monitoring system.

Technical features

Code	CGE13040
Dimensions	Ø100mm
Power supply	-20 +70°C - IP67

Electronic control unit

Electronic control unit equipped with control instruments output, auxiliary relays and 4-20mA outputs for an easy integration with the onboard monitoring system and automation.

Technical features

Code	Power supply: 12V	AMP10118/12
	Power supply: 24V	AMP10118
Dimensions	160 x 90 x 60mm	
Output	4-20mA	

Cylindrical pickup wheel

Cylindrical steel pickup wheel for propeller shaft rotation systems with side hub. Other dimensions on demand.

Technical features

Code	ING83014
Dimensions	On demand
Material	Steel

Electromagnetic pickup

Electronic device capable of measuring the revolutions of the propeller revolution through a toothed wheel.

Technical features

Code	PIK40490
Threading	5/8” 18F
Operating temperature	-40 +108°C

Square professional instrument

Line of professional analog instruments available in 72x72mm, 96x96mm and 144x144mm versions, suitable for connection with our TIL level sensors or with CAN Bus, 4-20mA, 0-1V and resistive signals.

Technical features

Dimensions	72 x 72mm / 96 x 96mm / 144 x 144mm
Inputs	CAN Bus - 4-20mA - Resistive (TIL or 10-180Ω)
Functions	Level / Temperature / Pressure control
Power supply	12/24V
Operating temperature	-20 +70°C
Protection grade	IP67

Ø100mm professional instrument

Professional analog instruments line available in Ø100mm dimensions. Suitable for connection to our TIL level sensors or with CAN Bus, 4-20mA, 0-1V and resistive signals.

Technical features

Dimensions	Ø100mm
Inputs	CAN Bus / 4-20mA / Resistive (TIL or 10-180Ω)
Functions	Level / Temperature / Pressure control
Power supply	12/24V
Operating temperature	-20 +70°C
Protection grade	IP67

Ø52mm professional instrument

Professional analog instruments line available in Ø52mm dimensions. Suitable for connection to our TIL level sensors or with CAN Bus, 4-20mA, 0-1V and resistive signals.

Technical features

Dimensions	Ø52mm
Inputs	CAN Bus / 4-20mA / Resistive (TIL or 10-180Ω)
Functions	Level / Temperature / Pressure control
Power supply	12/24V
Operating temperature	-20 +70°C
Protection grade	IP67

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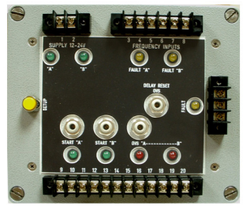
Tachometer relay

Tachometer relay designed to provide alarms and commands according to data received through one or two frequency inputs. The unit has also normally open common / normally closed exchange contacts all voltage free to ensure maximum flexibility and an overspeed test button.

Technical features

Code	Thresholds: 1	RTE12508/1
	Thresholds: 2	RTE12508/2
	Thresholds: 3	RTE12508/3
Dimensions	142 x 166 x 66mm	



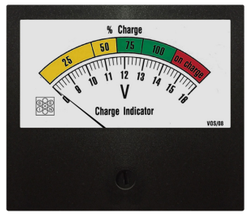
Panel instrument

DIN panel instrument features 90° or 240° movement and is customizable for 0-1V, 0-5V, 0-10V, 0-1mA and 4-20mA input values

Technical features

Dimensions	72 x 72mm / 96 x 96mm
Movement	90° / 240° / Central
Operating temperature	-25 +50°C
Protection grade	IP20 / IP52 Front

Panel analog instruments for measuring potential different battery voltage and intensity of the eletrical current. Black or white dial. Flush mounting (backpanel) on demand.



Technical features

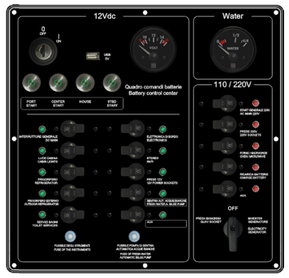
Dimensions	70 x 60 x 48mm
Dial color	Black / White
Operating temperature	-20 +70°C
Protection grade	IP20 / IP52 Front

On-board electrical panel

Panel developed for engine monitoring with analog instrumentation, ignition key, buttons for the battery control panel and selectors dedicated to the boat utilities.

Technical features

Dimensions	On demand
Panel material	Anodized black aluminum
Power supply	12/24V
Environment	-20 +70°C - IP65



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