VEETHREE
GROUP

MARINE PRODUCTS

Product catalogue
2023

veethree.com

CONTENTS:

VEETHREE GROUP

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Company overview:

Veethree Group

Veethree Group is an alliance of companies, driven by common technologies and innovation.

Today the group of companies has employees worldwide.

With sites over 4 continents, serving 100's of OEM customers.

THE FIRST COMPANY IN THE GROUP, INDICATION INSTRUMENTS, WAS FORMED IN 1976, ENGINEERING AND MANUFACTURING INSTRUMENTS FOR FARM EQUIPMENT. THE COMPANY GREW STEADILY ACQUIRING OTHER BUSINESS AND IN 1991 WAS ONE OF THE TOP 3 GROWTH COMPANIES IN INDIA.

In 2003 Veethree North America was created as a warehousing and sales operation to serve customers in a growing US market. Five years later in 2008 Veethree New Zealand opened its doors to better serve the Australasia market.

The group continued to grow its worldwide business and in 2009 an opportunity arose to acquire the assets of Teleflex Inc. a worldwide manufacturer of marine instruments with a production plant in Florida, USA. Under the brand of Veethree Electronics and Marine many of the Teleflex team joined the company and have been instrumental in its year on year growth.

2017 saw the acquisition of CANtronik Limited, based in the UK. The company had, since its inception in 2007, worked in partnership with the group, specializing in software engineering which complimented the group's hardware manufacturing capabilities. CANtronik rebranded in early 2019 to Veethree Technologies to work even more closely with group companies and cross functional teams.

Since 1976 technologies and our products have advanced in leaps and bounds but the core values remain unchanged, and customers remain at the very center of all our work. This focus sets us apart from other global business, we pride ourselves in working collaboratively with our customers as an extension of their engineering departments.

Our Mission

To design and build high quality electronic products that meet customers technology needs at the right price. Our professional and happy staff will have an eye on the future whilst delivering for today.

Our Vision

To be the OEM electronics partner of choice, growing and encouraging a worldwide team of highly skilled motivated and passionate people.

Engineering and Design

- Rapid prototyping
- EMI and RFI testing
- Shock and Vibration testing
- Accelerated weathering and real-time exposure testing
- Large and small package temperature and humidity testing
- Dust chamber and salt corrosion testing
- We also offer in-house circuit board design with the ability to go from single side and multi layer board schematics directly to the actual board.

Quality Management

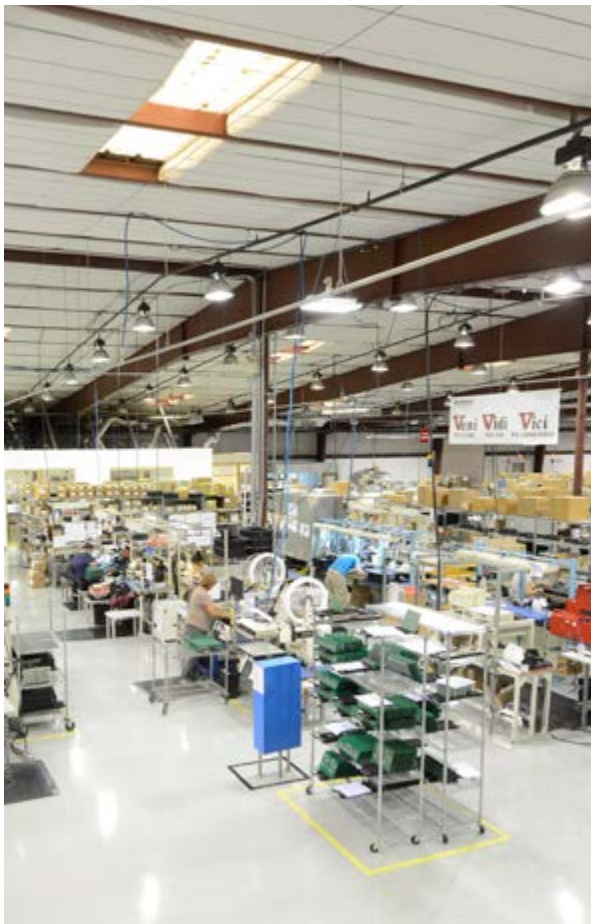
- ISO 9001:2015 certified QMS
- A computerised gauge calibration system to ensure that all measurement equipment is calibrated using masters traceable to NIST standards
- Documented processes, procedures, and standards
- Control of Engineering, Quality, and process documents and records
- Monitoring, measurement, and analysis of key “dashboard” metrics
- Regular management reviews of Quality system metrics and performance
- Management review of customer feedback

Production

- Complete circuit board assembly via Surface Mount Technology (SMT)
- Encapsulating
- Sonic welding
- Precision soldering
- Light duty welding

Individually our companies are well respected as global suppliers, together as a group they achieve greatness and continually deliver innovation"

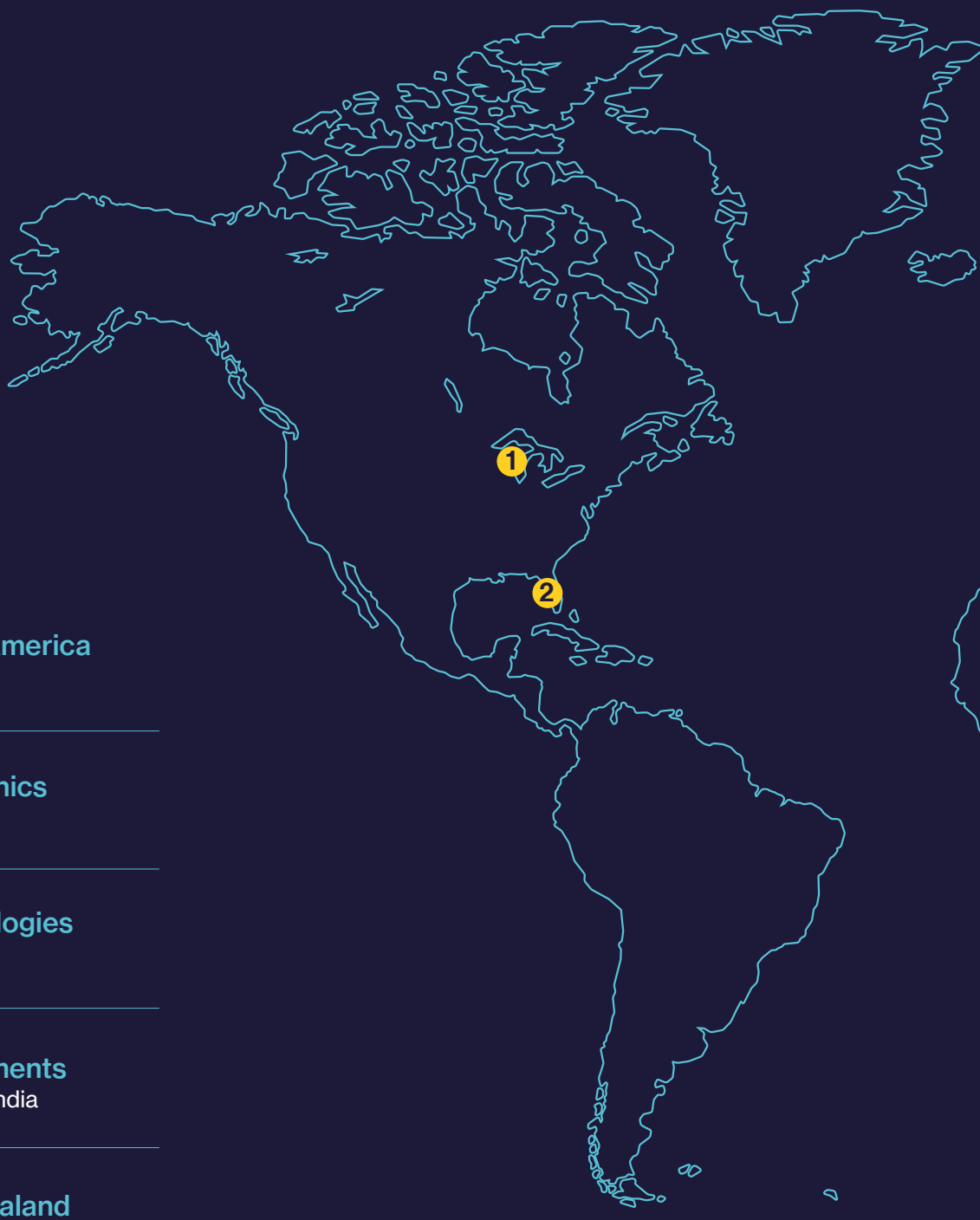
Shekhar Tewatia
Veethree Group Co-Founder



Our presence globally

The Veethree Group is an alliance of companies, driven by common technologies and innovation. Today the group of companies has employees worldwide, with sites over 4 continents, serving 100's of OEM customers.

Those companies include:



1 Veethree North America
Chicago, Illinois

2 Veethree Electronics
Bradenton, Florida

3 Veethree Technologies
Poole, Dorset

4 Indication Instruments
Faridabad, Haryana India

5 Veethree New Zealand
Henderson, Auckland

+1000
satisfied customers
in over 35 countries

Employs
100's
of personnel

Annual turnover
+$50m

Multi disiplinary
operations over **4**
continents

Veethree Group manufactures a range of digital CANbus displays, compatible with NMEA 2000™ and J1939 environments.

Custom software applications can be developed for all of our displays via our SDK or in-house Engineering team.

They are designed for use in Marine applications where the highest standards of reliability and performance are vital.

DIGITAL DISPLAYS

- **/ T-Series** - Touch screen colour displays
- **/ D-Series** - Dual touch and keypad display
- **/ R-Series** - Round touch screen display
- **/ C-Series** - Colour displays
- **/ M-Series** - Monochrome displays

T7i

7” Touch screen colour display

Accessories

> Cable Harnesses Front

> Mounting Kits

> Branding - Labels & Boxes

> GPS Sensor Development

> Harness

> CAN Keypad

PART OF THE T-SERIES FAMILY OF DISPLAYS, FEATURING A TOUCH COLOUR SCREEN. THE T7i HAS A SLIM-LINE PROFILE HOUSING A HI-RESOLUTION 7-INCH PROJECTED CAPACITIVE TOUCH CUSTOMISABLE COLOUR SCREEN DELIVERING MODERN TABLET LIKE AESTHETICS.

The WVGA (800×480) PCAP LCD colour display can be viewed in full sunlight and the ruggedised unit is sealed to meet IP67 standards. With dual CAN and Ethernet supported the display is suited to a wide range of applications. External buttons can be added via a compatible CAN keypad.

It meets the need for tough, flexible instrumentation while offering high performance and design specifications. Custom software applications to be rapidly created using the software development kit (SDK), and the display can be integrated into a control and monitoring system using its data logging capacity, and alarm functionality.

A Freescale i.MX6 processor offers high performance graphics. Running Linux, programmers can quickly put together a project using our proprietary software developer’s kit (SDK) and the proven Veethree component based library. Application softwares able to be rapidly validated on a PC using the PC simulator.

Key features:

/ 2 x CANbus Connections and 1 x RS422/485 Connection

/ 1 x Analogue & 1 x Digital Input, 1 x Relay Output

/ 1 x Ethernet Port

/ Telematics Supported

/ Data Logger & Control Functions

/ J1939 / NMEA 2000™ Compatible

/ IP67 All Round Protection

Part Numbers:

7010
T7i 7” CAN Display

7011
T7i 7” CAN Display with Engine Monitor Software Preloaded

Hardware	
CPU	i.MX6 Solo X
Flash Memory	Memory 512MB SLC NAND
SDRAM	256MB DDR3

Mechanical	
Case Material	ABS
Case Colour	Anthracite Grey
Dimensions	181.1mm (W) x 124mm (H) x 11mm forward and 56.4mm rear (D)

Electrical	
Display	PCAP LCD 7.0”
Resolution	800 (H) x 480 (V) WVGA
Active Area	152.4mm (H) x 91.44mm (V)
Viewing Angle	70 degrees left/right/down/up
Contrast Ratio	600:1
Brightness	800 NIT (cd/m^2) Full sunlight readable
Power Requirements	8V to 32V DC
Sounder	Internal Buzzer
Connection	**4 x M12 Connectors:** **A** - Primary CANbus / Power M12 Male 5 pin A coded **B** - Isolated CANbus M12 Male 5 pin A coded **C** - Ethernet M12 Female 4 pin D coded **D** - Misc M12 Female 12 pin A coded

Input/Output / Communications	
Analogue Input	Software selectable as 0 - 5 VDC or 0 - 12 VDC or 0 - 1000 OHMS
Switch Inputs	Switch Contact to ground or open collector type sensor - max. frequency= 50 Hz
Relay Output	Open collector suitable 0.5A continuous load.
Communications	1 x RS422/485, 2 x CAN bus 2.0B (1 isolated) 1 x USB 2.0, 1 x Ethernet

Environmental	
Operating Temperature	-30°C to +80°C
Storage Temperature	-30°C to +80°C
Degree of Protection	IP67

T5

5” Touch screen colour display

Accessories

> Cable Harnesses Front

> Mounting Kits

> Branding - Labels & Boxes

> GPS Sensor Development

> Harness

> CAN Keypad

PART OF THE T-SERIES FAMILY OF DISPLAYS, FEATURING A TOUCH COLOUR SCREEN. THE T5 HAS A SLIM-LINE PROFILE HOUSING A HI-RESOLUTION 5-INCH PROJECTED CAPACITIVE TOUCH CUSTOMISABLE COLOUR SCREEN DELIVERING MODERN TABLET LIKE AESTHETICS.

The T5 has a slim-line profile housing a hi-resolution 5-inch projected capacitive touch customisable colour screen delivering modern tablet like aesthetics. The WVGA (800x480) PCAP LCD colour display can be viewed in full sunlight and the ruggedised unit is sealed to meet IP67 standards. With dual CAN and Ethernet supported the display is suited to a wide range of applications. External buttons can be added via a compatible CAN keypad.

It meets the need for tough, flexible instrumentation while offering high performance and design specifications. Custom software applications to be rapidly created using the software development kit (SDK), and the display can be integrated into a control and monitoring system using its data logging capacity, and alarm functionality.

Running linux, programmers can quickly put together a project using our proprietary software developer’s kit (SDK) and the proven Veethree component based library. Application software is able to be rapidly validated on a PC using the PC simulator.

Key features:

/ 800 NIT Sunlight Readable

/ -20°C to +70°C Operating temp

/ 2 x CANbus Connections and 1 x RS422/485 Connection

/ 1 x Analogue and 1 x Digital Input, 1 x Relay Output

/ 1 x Ethernet Port, 2 x USB Ports

/ J1939 / NMEA 2000™ Compatible

/ IP67 All Round Protection

Part Numbers:

5000
T5 5” CAN Display

5001
T5 5” CAN Display with Engine Monitor Software Preloaded

Hardware	
CPU	i.MX6 Solo X
Flash Memory	Memory 512MB SLC NAND
SDRAM	256MB DDR3

Mechanical	
Case Material	ABS
Case Colour	Anthracite Grey
Dimensions	181.1mm (W) x 124mm (H) x 11mm forward and 56.4mm rear (D)

Electrical	
Display	PCAP LCD 5.0”
Resolution	800 (H) x 480 (V) WVGA
Active Area	108.0mm (H) x 64.8mm (V)
Viewing Angle	70 degrees left/right/down/up
Contrast Ratio	700:1
Brightness	800 NIT (cd/m^2) Full sunlight readable
Power Requirements	8V to 32V DC
Sounder	Internal Buzzer
Connection	**4 x M12 Connectors:** **A** - Primary CANbus / Power M12 Male 5 pin A coded **B** - Isolated CANbus M12 Male 5 pin A coded **C** - Ethernet M12 Female 4 pin D coded **D** - Misc M12 Female 12 pin A coded

Input/Output / Communications	
Analogue Input	Software selectable as 0 - 2.5 VDC or 0 - 10 VDC or 0 - 1000 OHMS
Switch Inputs	Switch Contact to ground or open collector type sensor - max. frequency= 50 Hz
Relay Output	Open collector suitable 0.5A continuous load.
Communications	1 x RS422/485, 2 x CAN bus 2.0B (1 isolated) 1 x USB 2.0, 1 x Ethernet

Environmental	
Operating Temperature	-20°C to +70°C
Storage Temperature	-30°C to +80°C
Degree of Protection	IP67

PRODUCT PREVIEW

D7

7” Dual touch/Tactile button display

Key features:

- / Rugged 7” Dual Touchscreen
- / Tactile Button Display
- / Onboard wireless connectivity with both Wifi and Bluetooth
- / iMX8 Processor from NXP
- / Fully Bonded 1000NIT TFT LCD
- / Qt – Cross-Platform Software Development

D7 FEATURES TOUCH SCREEN, TACTILE BUTTON AND ROTARY ENCODER.

The D7 represents the first in a new line of rugged intelligent display solutions from Veethree. The D7 boasts superior CPU performance with an iMX8 processor from NXP. High resolution 7-inch projective capacitive touchscreen delivers modern tablet-like aesthetics. Six large illuminated tactile buttons (with colour control) and rotary encoder to ease with screen navigation.

Full versatility with analogue inputs compatible with voltage, resistive and 4-20mA sender interface. Digital inputs allow for high-speed pulse counters. Multiple digital outputs capable of sourcing / sinking 500mA with allocation for PWM.

The iMX8 allows for high-speed CPU processing, screen transition and graphical movement will be swift and subtle. Front end graphical interfaces are developed using Qt, a Commercially Licenced cross-platform development environment and framework for creating applications with outstanding user experiences.

Communication includes 2 x CAN (1 x isolated), RS485/RS422/RS232 and Ethernet. Combined with on-board wireless connectivity via Bluetooth / Wi-Fi - keep informed about your assets and see how your machine is performing at all times.

The WVGA (1280 x 768) PCAP fully bonded LCD provides outstanding viewability in all conditions including direct sunlight. The ruggedized unit is sealed to meet IP66/67 standards – suited to the harshest of environments and applications.

Electrical	
Display	PCAP LCD 7”
Resolution	1280 x 768 WVGA
Active Area	152.4mm x 92.4mm / 6” x 3.6”
Viewing Angle	85 degrees left/right/down/up
Contrast Ratio	800:1
Brightness	1000 NIT (cd/m²) Full sunlight readable
Power Requirements	6V to 36V DC
Sounder	Internal Buzzer - with x2 channel audio line out
Connection	x1 AMPSEAL23 pin x1 AMPSEAL35pin x1 M12 NMEA2k x1 USBC sealed, x1 Xcode M12 x1 SDmicro x1 SIM micro
Communications	x1 RS485/RS422/J1708 (selectable) x1 RS232 (always available) x2 CAN, (1 is NMEA, 1x non-isolated, always available) x1 1Gbps Ethernet Bluetooth 5.0 Wifi 2.4GHz and 5GHz 4G CAT1

Environmental	
Operating Temperature	-30°C to +85°C
Storage Temperature	-40°C to +85°C
Degree of Protection	IP66 FRONT and IP67 ALL ROUND

Mechcanical	
Case Material	PC/ABS
Case Colour	Black / Anthracite Grey
Dimensions	238.5mm x 152.4mm / 52.3mm (front to back) 9.39” x 6” / 2.06” (front to back)

Inputs / Outputs	
Analogue Input	x6 4-20mA - fixed x6 voltage or resistive
Switch Inputs	x5 Digital Inputs, x2 separate PWM inputs
Relay Output	x6 Relay outputs, x2 PWM relay outputs working as current source or sink
Video Inputs	x4 CVBS input channels (PAL and NTSC supported)

Please note: *The product description and technical specifications are subject to change prior to the official D7 product launch.*

R3

3” fully round, edge-to-edge, touch screen display

Accessories

> Cable Harnesses

> Branding - Labels & Boxes

> GPS Sensor

> Sun Cover

THE R3 JOINS OUR EXISTING RANGE OF RUGGEDISED, RELIABLE CAN DISPLAYS OFFERING A CUSTOMISABLE SCREEN WITH CAPACITIVE TOUCH ABILITIES, PROVIDING THE STYLING OF A TRADITIONAL ANALOGUE GAUGE WITH THE MODERN ABILITY TO CHANGE LOOKS TO SUIT ANY APPLICATION.

The fully round LCD-colour display, the R3 is fully sunlight readable, as well as sealed to meet IP67 standards. With CAN bus, analogue and digital inputs supported, the R3 is suited to a wide range of applications.

High performance custom software applications can be rapidly created using the software development kit (SDK). Alternatively, our internal Software Engineering team can build custom applications for you, from an integrated control & monitoring system using data logging & alarm functionality to specific application based HMI relaying to Multi Function Displays.

Key features:

/ 800 NIT Sunlight Readable

/ -30°C to +77°C Operating temp

/ Drop-in replacement for 3” gauges

/ 6 x Analogue Inputs, 1 x Frequency Input

/ 1 x CANbus

/ 4 x Digital Inputs

/ NMEA 2000™ Isolated

/ IP67 All Round Protection

Part Numbers:

3000
R3 3” CAN Display

Hardware	
CPU	STM32F4
Flash Memory	8MB
RAM	32MB SDRAM
EEPROM	2KB

Mechanical	
Case Material	ABS
Case Colour	Anthracite Grey
Dimensions	106mm Round x 60mm Depth

Electrical	
Display	PCAP LCD 2.93” Round
Resolution	432 x 432
Active Area	74.39mm Diameter
Viewing Angle	70 degrees left/right/down/up
Contrast Ratio	700:1
Brightness	850 NIT (cd/m^2) Full sunlight readable
Power Requirements	10V to 32V DC
Sounder	Internal Buzzer
Connection	(2) 12 Pin Deutsch DT04-12PA / 12PB Moulded in Receptacle - mates with DT06-12SA / 12SB respectively

Input/Output / Communications	
Analogue Input	6 Analogue Inputs - 1 X 0-1000 OHM, 0-2.5v, 0-10v 5 X 0-1000 OHM
Switch Inputs	4 x Switch Inputs :Switched Contact to Ground or Open Collector Type (max frequency = 50Hz)
RPM Input	Magnetic pick up or all effect and similar with push-pull output- max. frequency = 5KHz
1 Relay/Buzzer Output	Open collector suitable 0.5A continuous load
Communications	1 X CAN bus 2.0B (isolated)

Environmental	
Operating Temperature	-30°C to +77°C
Storage Temperature	-30°C to +85°C
Degree of Protection	IP67 All round, IP66 Front

R3s

3” Round / 2.8” Square Colour LCD display

Accessories

> Cable Harnesses

> Branding - Labels & Boxes

> Protective Sun Covers

> Mounting Kits

THE R3S, HAS A 2.8 INCH RECTANGULAR COLOUR DISPLAY WITH AN INTEGRAL 5 BUTTON KEYPAD.

This display has the same bezel dimensions as standard 3-3/8” analogue gauges, allowing it to blend into a variety of dash designs seamlessly. 4 relay outputs, 2 CAN input connections, plus a USB port allows for maximum functionality.

The QVGA colour display can be viewed in full sunlight, and the unit is totally sealed and electronically extremely durable. The display can provide system control functions, alarm functionality. It is equipped to meet the challenge of providing tough, flexible, maintenance-free instrumentation in even the very harshest of environments.

Key features:

/ 2x CANbus connections

/ 4x Relay outputs

/ Control capabilities

/ Drop-in replacement for 3” gauges

/ J1939 / NMEA 2000™ compatible

/ IP67 All round protection

Part Numbers:

3010

R3s 2.8” Rectangular Colour LCD in a 3-3/8” Round Housing

Hardware	
CPU	Processor is Freescale i.MX286, running 454 MHz
Flash Memory	128MB NAND
SRAM	128MB

Mechanical	
Case Material	ABS
Case Colour	Black
Dimensions	84.8 mm diameter x 44 mm high Bezel 95.7 mm diameter

Electrical	
Display	TFT LCD 2.8”
Resolution	320 x 240 QVGA
Active Area	43.2 mm (H) x 57.6 mm (V)
Viewing Angle	70º / 80º left/right/down/up
Contrast Ratio	300:1
Brightness	750 NIT
Power Requirements	10V to 32V DC
Sounder	Internal Buzzer
Connection	(1) 12 Pin Deutsch DT04-12P Moulded in Receptacle -mates with DT06-12A

Input/Output / Communications	
RPM Input	Magnetic pick up or all effect and similar with push-pull output- max. frequency = 5KHz
Relay Outputs	4 x Open collector suitable 0.5A continuous load
Communications	2 x CAN bus 2.0B (1 x Isolated)

Environmental	
Operating Temperature	-20°C to +70°C
Storage Temperature	-30°C to +80°C
Degree of Protection	IP67 All Round, IP66 Front

R2s

2” Round gauge with square colour display

Accessories

> Cable Harnesses

> Branding - Labels & Boxes

> GPS Sensor

THE R2S SPORTS A SQUARE COLOUR SCREEN HOUSED IN A SMALL 2” GAUGE.

Ideally suited for applications such as battery monitoring the display is a low cost CANbus reader configured at production to show a single data item from the J1939 CANbus.

Full support is offered with our Engineers developing the chosen data item application. An LED can be configured to allow an additional warning.

The unique, LCD colour display can be viewed at wide angles and the ruggedised unit is sealed to meet IP65 standards.

It meets the need for tough, flexible instrumentation while offering high performance and design specifications.

Key features:

/ 1 x CANbus

/ Full colour TFT display

/ CAN bus reader

/ Fits in standard SAE 2” gauge hole

/ IP65 All Round Protection

Part Numbers:

2800

R2s 2” Round Square LCD Display

Hardware	
CPU	STM8S208C8TG
Flash Memory	64KB
RAM	48KB
EEPROM	16KB

Mechanical	
Case Material	ABS
Case Colour	Anthracite Grey
Dimensions	58mm Round x 61mm Depth

Electrical	
Display	TFT LCD 1.4” Round
Resolution	128 x 128
Active Area	74.39mm Diameter
Viewing Angle	65º left/right/down/up
Contrast Ratio	400:1
Brightness	250 NIT (cd/m^2)
Power Requirements	10V to 16V DC
Sounder	Internal Buzzer
Connection	1 x 6 pin Deutsch I. P. D. DT Series, DT-06-6S, Locking wedge W6A

Communications	
Communications	1 X CAN bus 2.0B

Environmental	
Operating Temperature	-30°C to +77°C
Storage Temperature	-30°C to +85°C
Degree of Protection	IP65

C7

7” Colour display

Accessories

> Cable Harnesses
> Front Mounting Kits
> Branding - Labels and Boxes
> GPS Sensor
> Development Harness
> Protective Sun Covers

FEATURES A HI-RESOLUTION 7-INCH TOUCH-SCREEN COLOUR CAN BUS DISPLAY. IT IS DESIGNED AS AN OEM (ORIGINAL EQUIPMENT MANUFACTURER) PRODUCT, AND IS NOT AVAILABLE DIRECT TO END USERS.

The screen size brings together easy to read information via a simple to operate, powerful interface that is both compact and incredibly rugged.

The C7, formerly the CANvu 700/Veecan 800, embedded display has a high standard specification which includes 14 analogue inputs, 4 digital inputs, 8 relay outputs, 2 CAN connections, 2 USB ports, an Ethernet port and dedicated digital tachometer input. The colour display can be viewed in full sunlight and has the potential for multiple screens to be displayed via user defined touch screen buttons or external keypad. The complete unit is sealed to meet IP standards 66 (front) & 67 (rear).

The C7 uses the proven and powerful Freescale i.MX286 processor which opens up the possibility for custom applications to be rapidly created and validated using the software development kit (SDK). It meets the need for tough, flexible instrumentation that will handle the harshest environments and where a larger embedded display is essential. It can easily be integrated into a control system using its data logging capacity, and alarm functionality.

Key features:

/ 7" Resistive touch screen
/ Full colour display
/ Compact and rugged interface
/ 14 analogue inputs, 3 digital inputs, 1 RPM input and 8 relay outputs
/ A dedicated digital tachometer input
/ A colour display viewable in full sunlight
/ Meets IP standards 66 and 67
/ A powerful Freescale i.MX286 processor
/ Easily integrated into a control system

Part Numbers:

7000
C7 7” Colour Display

Hardware	
CPU	Processor is Freescale i.MX286, running 454 MHz
Flash Memory	128 MB NAND
RAM	128 MB

Mechanical	
Case Material	ABS
Case Colour	Anthracite Grey
Dimensions	205mm (W) x 157mm (H) x 30mm forward and 28mm rear (D)

Electrical	
Display	a-Si TFT LCD 7"
Resolution	800 (H) x 480 (V) WVGA
Active Area	152.40mm (H) x 91.44mm (V)
No. of Colours	262k
Viewing Angle	60 degrees left/right/down 50 degrees up
Contrast Ratio	400:1
Brightness	800 NIT (cd/m^2) Full sunlight readable
Power Requirements	10V to 32V DC
Sounder	Internal Buzzer
Connection	(1) 12 Pin Deutsch DT04-12SA Moulded in Receptacle

Input/Output / Communications	
Input	14x Analogue 3x Digital 1x RPM
Output	8x Relay
Communications	3x 12 Pin Deutsch DT04-12PA Moulded in Receptacle Mates with Primary DT06-12SA, Secondary DT06-12SB, Tertiary DT06-12SC

Environmental	
Operating Temperature	-30°C to +80°C
Storage Temperature	-40°C to +80°C
Degree of Protection	IP67 Rear, IP66 Front

C3

3.5” Colour display

Accessories

> Cable Harnesses
> Front Mounting Kits
> Branding - Labels & Boxes
> GPS Sensor
> Development Harness
> Protective Sun Covers

PART OF THE RANGE OF 3.5” COMPACT COLOUR CAN BUS DISPLAYS THIS MODEL FEATURES MULTIPLE CANBUS, ANALOGUE & DIGITAL INPUTS.

The C3 has a 3.5 inch colour LCD with fully integrated input and output features. One of our most popular displays, it is available in 4 variants with low profile and reduced I/O combinations. The display is part of the family of compact, flexible, and rugged CAN bus monitors.

With 7 analogue inputs, 4 relay outputs combined with 3 digital inputs, 2 CAN input connections, plus a USB port the C3 offers a feature packed solution. The QVGA colour display can be viewed in full sunlight, the unit is totally sealed and electronically extremely durable.

The display can provide system control functions, alarm functionality, and has configurable data logging capability. It is equipped to meet the challenge of providing tough, flexible, maintenance-free instrumentation in even the harshest of environments.

Using the powerful Freescale i.MX286 ARM processor running Linux, programmers can quickly put together a project using our proprietary software developer’s kit (SDK) and the proven Veethree component based library. Application software is able to be rapidly validated on a PC using the PC simulator.

Key features:

/ 3.5” Display
/ 750 NIT Sunlight readable
/ 130° / 110° Viewing angle
/ 320 x 240 Resolution
/ -40°C to +70°C Operating temp
/ 7 x Analogue inputs, 3 x Digital inputs
/ 4 x Relay outputs
/ 2 x CAN
/ 1 x RS232 input
/ IP67 All Round Protection

Part Numbers:

3500
C3 3.5” CAN Display

3501
C3 3.5” CAN Display with Engine Monitor Software Preloaded

3503
C3 3.5” CAN Display with Engine Gateway Monitor Software Preloaded

Hardware	
CPU	Freescale i.MX286 (454 MHz ARM926EJ-S)
Flash Memory	128 MB NAND
SDRAM	128 MB

Mechanical	
Case Material	ABS
Case Colour	Black
Dimensions	95mm (W) x 95mm (H) Front x 23mm rear (D) and 23mm (F)

Electrical	
Display	a-Si TFT LCD 3.5’
Resolution	320 (H) x 240 (V) QVGA
Active Area	70.08mm (H) x 52.56mm (V)
No. of Colours	64k
Viewing Angle	130º / 110º degrees from 6 O’clock
Contrast Ratio	300:1
Brightness	750 NIT (cd/m^2)
Power Requirements	10V to 32V DC
Sounder	Internal Buzzer
Connection	(2) 12 Pin Deutsch DT04-12PA Moulded in Receptacle

Input/Output / Communications	
Analogue Input	7 x Analogue Inputs - 0 - 2.5 VDC, 0 - 10 VDC or 0 - 1000 OHMS
Switch Inputs	2 x Switch Contact to ground or open collector type sensor - max. frequency = 50 Hz
RPM Input	1 x Magnetic pick up or all effect and similar with push-pull output - max. frequency = 5 KHz
Relay / Solenoid Outputs	4 x Open collector suitable 0.5A continuous load.
Communications	1 X RS232, 2 X CAN bus 2.0B (1 isolated), USB2.0

Environmental	
Operating Temperature	-40°C to +70°C
Storage Temperature	-40°C to +80°C
Degree of Protection	IP67 All Round, IP66 Front

C3i

3.5” Colour display

Accessories

> Cable Harnesses
> Front Mounting Kits
> Branding - Labels and Boxes
> GPS Sensor
> Development Harness
> Protective Sun Covers

THE C3i IS THE LITE VARIANT IN THE RANGE OF 3.5” COMPACT COLOUR CAN BUS DISPLAYS.

The C3i has a 3.5 inch colour LCD. One of our most popular displays this Lite variant has reduced I/O capabilities than the standard C3.

The display is part of the family of compact, flexible, and rugged CAN bus monitors. Designed for applications with reduced I/O requirements the display can therefore offer cost savings against the full I/O variants in the family of displays. It retains a single CAN input connection, plus a USB port. The display can provide system control functions, alarm functionality, and has configurable data logging capability.

The QVGA colour display can be viewed in full sunlight, the unit is totally sealed and electronically extremely durable. Using the powerful Freescale i.MX286 ARM processor running Linux, programmers can quickly put together a project using our proprietary software developer’s kit (SDK) and the proven Veethree component based library. Application software is able to be rapidly validated on a PC using the PC simulator.

Key features:

/ 3.5” Display
/ 750 NIT Sunlight readable
/ 130° / 110° Viewing angle
/ 320 x 240 Resolution
/ -40°C to +70°C Operating temp
/ 1 x USB Port
/ 1 x CAN bus
/ 1 X RS232 Input
/ IP67 All Round Protection

Part Numbers:

3520
C3i 3.5” CAN Display

3521
C3i 3.5” CAN Display with Engine Monitor Software Preloaded

Hardware	
CPU	Freescale i.MX286 (454 MHz ARM926EJ-S)
Flash Memory	128MB NAND
SDRAM	128MB

Mechanical	
Case Material	ABS
Case Colour	Black
Dimensions	95mm (W) x 95mm (H) Front x 23mm rear (D) and 23mm (F)

Electrical	
Display	a-Si TFT LCD 3.5’
Resolution	320 (H) x 240 (V) QVGA
Active Area	70.08mm (H) x 52.56mm (V)
No. of Colours	64k
Viewing Angle	130º / 110º degrees from 6 O’clock
Contrast Ratio	300:1
Brightness	750 NIT (cd/m^2)
Power Requirements	10V to 32V DC
Sounder	Internal Buzzer
Connection	(1) 12 Pin Deutsch DT04-12SA Moulded in Receptacle

Input/Output / Communications	
Communications	1 X RS232, 1 X CAN bus 2.0B (1 isolated), USB2.0

Environmental	
Operating Temperature	-40°C to +70°C
Storage Temperature	-40°C to +80°C
Degree of Protection	IP67 All Round, IP66 Front

C3I

3.5” Low Profile Colour display

Accessories

> Cable Harnesses
> Front Mounting Kits
> Branding - Labels & Boxes
> GPS Sensor
> Development Harness
> Protective Sun Covers

THE C3L OFFERS A LOW PROFILE HOUSING WITH FULL I/O IN THE RANGE OF 3.5” COMPACT COLOUR CAN BUS DISPLAYS.

Part of the CAN bus display family from Veethree, it is a fully sunlight viewable 3.5 inch colour display, which is compact and highly flexible with a low profile bezel. It has a larger more accessible and stylised keypad, which is backlit for ease of operation at night.

With 7 analogue inputs, 4 relay outputs combined with 3 digital inputs, 1 Tachometer input, 2 CAN input connections, plus a USB port the C3I offers maximum functionality. Ethernet can be supported via a USB to Ethernet adapter.

The high brightness QVGA (320 x 240 pixels) colour display is fully sunlight viewable and the unit is totally sealed. Electrically and environmentally rugged, the C3I provides durable, flexible instrumentation for the harshest of environments.

Using the powerful Freescale i.MX286 ARM processor running Linux, programmers can quickly put together a project using our proprietary software developer’s kit (SDK) and the proven Veethree component based library. Application software is able to be rapidly validated on a PC using the PC simulator.

Key features:

/ 3.5” Colour display
/ 750 NIT Sunlight readable
/ 130° / 110° Viewing angle
/ 320 x 240 Resolution
/ -40°C +70°C Operating temp
/ 2 x CANbus
/ IP67 All Round Protection
/ 7 x Analogue inputs
/ 3 x Digital inputs
/ 4 x Relay outputs
/ 1 x RS232 connection
/ Ethernet via USB dongle
/ 1 x USB port

Part Numbers:

3510
C3I 3.5” CAN Display

3513
C3I 3.5” CAN Display with Engine Monitor Software Preloaded

3514
C3I 3.5” CAN Display with Engine Gateway Monitor Software Preloaded

Hardware	
CPU	Freescale i.MX286 (454 MHz ARM926EJ-S)
Flash Memory	128 MB NAND
SDRAM	128 MB

Mechanical	
Case Material	ABS
Case Colour	Black
Dimensions	116mm (W) x 116mm (H) Front x 41mm rear (D) and 96mm rear (WxH)

Electrical	
Display	a-Si TFT LCD 3.5’
Resolution	320 (H) x 240 (V) QVGA
Active Area	70.08mm (H) x 52.56mm (V)
No. of Colours	64k
Viewing Angle	130º / 110º degrees from 6 O’clock
Contrast Ratio	300:1
Brightness	750 NIT (cd/m^2)
Power Requirements	10V to 32V DC
Sounder	Internal Buzzer
Connection	(1) 12 Pin Deutsch DT04-12PA Moulded in Receptacle Mates with Primary DT06-12SA (1) 12 Pin Deutsch DT04-12PB Moulded in Receptacle Mates with Secondary DT06-12SB

Input/Output / Communications	
Analogue Input	7 x Analogue Inputs - 0 - 2.5 VDC, 0 - 10 VDC or 0 - 1000 OHMS
Switch Inputs	2 x Switch Contact to ground or open collector type sensor - max. frequency = 50 Hz
RPM Input	1 x Magnetic pick up or all effect and similar with push-pull output - max. frequency = 5 KHz
Relay / Solenoid Outputs	4 x Open collector suitable 0.5A continuous load.
Communications	1 X RS232, 1 X CAN bus 2.0B (1 isolated), USB2.0

Environmental	
Operating Temperature	-40°C to +70°C
Storage Temperature	-40°C to +80°C
Degree of Protection	IP67 All Round, IP66 Front

C3il

3.5” Lite Low Profile Colour display

Accessories

> Cable Harnesses
> Front Mounting Kits
> Branding - Labels and Boxes
> GPS Sensor
> Development Harness
> Protective Sun Covers

THE C3il HAS A LOW PROFILE HOUSING & REDUCED I/O AND IS PART OF THE RANGE OF 3.5” COMPACT COLOUR CAN BUS DISPLAYS.

This variant has reduced I/O capabilities and a low profile housing giving a sleeker finish and larger buttons than the standard C3.

Designed for applications with reduced I/O requirements the display can therefore offer cost savings against the full I/O variants in the family of displays. It retains a single CAN input connection, plus a USB port.

The QVGA colour display can be viewed in full sunlight, and the unit is totally sealed and electronically extremely durable. The display can provide system control functions, alarm functionality, and has configurable data logging capability.

Using the powerful Freescale i.MX286 ARM processor running Linux, programmers can quickly put together a project using our proprietary software developer’s kit (SDK) and the proven Veethree component based library. Application software is able to be rapidly validated on a PC using the PC simulator.

Key features:

/ 3.5” Colour display
/ 750 NIT Sunlight readable
/ 130° / 110° Viewing angle
/ 320 x 240 Resolution
/ -40°C +70°C Operating temp
/ 1 x CANbus
/ 1 x RS232
/ 1 x USB port
/ IP67 All Round Protection

Part Numbers:

3530
C3il 3.5” CAN Display

3531
C3il 3.5” CAN Display with Engine Monitor Software Preloaded

Hardware	
CPU	Freescale i.MX286 (454 MHz ARM926EJ-S)
Flash Memory	128 MB NAND
RAM	128 MB

Mechanical	
Case Material	ABS
Case Colour	Black
Dimensions	116mm (W) x 116mm (H) Front x 41mm rear (D) and 96mm rear (WxH)

Electrical	
Display	a-Si TFT LCD 3.5’
Resolution	320 (H) x 240 (V) QVGA
Active Area	70.08mm (H) x 52.56mm (V)
No. of Colours	64k
Viewing Angle	130º / 110º degrees from 6 O’clock
Contrast Ratio	300:1
Brightness	750 NIT (cd/m^2)
Power Requirements	10V to 32V DC
Sounder	Internal Buzzer
Connection	(1) 12 Pin Deutsch DT04-12SA Moulded in Receptacle

Input/Output / Communications	
Communications	1 X RS232, 1 X CAN bus 2.0B (1 isolated), USB2.0

Environmental	
Operating Temperature	-40°C to +70°C
Storage Temperature	-40°C to +80°C
Degree of Protection	IP67 All Round, IP66 Front

M2

2.3” Monochrome display

Accessories

> Cable Harnesses

> Front Mounting Kits

> Branding - Labels and Boxes

> GPS Sensor

> Protective Sun Covers

THE M2 IS THE MOST COMPACT MODEL IN THE RANGE OF MONOCHROME CAN BUS DISPLAYS.

The M2 is compact in size despite the rugged design, and is ideally suited for use on vehicles and equipment such as small construction machines, generators, agricultural and industrial equipment, and offers easy integration into third party CAN-based systems. The display supports J1939 and is Tier 4 compliant.

Our displays have established a new standard for intelligent, multi-function displays and are the perfect platform to empower your electronic systems with flexibility and control.

Our SDK offers bespoke monitoring applications for the M2, alternatively, the Engine Monitor standard software can be preloaded as an ‘off the shelf’ solution, receiving J1939 engine and transmission data.

Key features:

/ 2.3” Monochrome display

/ 128 x 64 Resolution

/ IP67 All Round Protection

/ 1 x Analogue input

/ 1 x Relay output

/ -30°C +80°C Operating temp

/ 1 x CANbus

/ 1 x Mini USB port

Part Numbers:

2300
M2 2.3” CAN Display

2301
M2 2.3” CAN Display with Engine Monitor Software Preloaded

Hardware	
CPU	Cortex-M3
Flash Memory	256KB (Expandable to 1MB)
RAM	96K (Expandable to 128K)

Mechanical	
Case Material	ABS
Case Colour	Black
Dimensions	79.50mm x 69.40mm

Electrical	
Display	2.3” Dot Matrix LCD
Resolution	128 (H) x 64 (V) pixels transflective
Active Area	70.08mm (H) x 52.56mm (V)
Power Requirements	10V to 32V DC
Sounder	Internal Buzzer
Connection	Integral Deutsch 6 way connector

Input/Output / Communications	
Communications	1 x CAN bus 2.0B and USB MiniB OTG

Environmental	
Operating Temperature	-30°C to +80°C
Storage Temperature	-40°C to +80°C
Degree of Protection	IP67 All Round, IP66 Front

Engine Monitors provide a ready-made solution, combining our range of displays with 'off-the-shelf' software.

They are specifically designed with industry standard features, operator alarms and include a range of selectable screen designs.

ENGINE MONITORS

Plug and play engine monitors designed to be used with most engine types, including Mechanical (Analogue), J1939 and NMEA 2000™ Engines.

UEM

UNIVERSAL ENGINE MONITORS

Key features:

/ Compatible with Multiple Engine Types/Brands

/ All Common Engine Parameters Shown

/ All Triggered Alarms Shown

/ Single or Twin Engine Display Modes

/ NMEA 2000™ Gateway for Transmission to Other MFDs

/ IP67 All-Round Protection

/ Plug and Play Installation

/ Button Operated and Touch Screen Models Available

PLUG AND PLAY ENGINE MONITORS DESIGNED TO BE USED WITH MOST ENGINE TYPES. INCLUDING MECHANICAL (ANALOGUE), J1939 AND NMEA 2000™ ENGINES.

The range incorporates a variety of types and screen sizes from a round 3” display to a slimline 7” display. Each model of display has varying levels of the number and type of inputs.

The software is common across the range supporting inputs from Analogue, J1939 and NMEA 2000™ engines that can be configured via the setup menu. The UEM software provides selectable icon based display layouts; including a comprehensive text based fault warning and acknowledgement system and a series of “hidden until lit” alarm lamps.

Primary display options include parameters related to Engine Status, and Alarms as well as Fuel Level, Rudder Angle, Trim, Depth, Speed and Heading. Data is available in several formats and measurement units.

The UEM includes a “gateway” feature that converts inputs (including Analogue signals, J1939 and NMEA0183 for GPS) to NMEA 2000™ allowing engine data to be broadcast for display on other onboard multi-function displays.

Kit includes

> Display with Preloaded Engine Monitor Software

> Protective Cover

> Harness Cabling Selectable Options Either:
Universal Inc. (J1939, NMEA 2000™ and Analogue) or J1939 only

	R3	R3s	C3	C3I	T5	T7i
Display range						
Screen Size	3” LCD	2.8” LCD	3.5” LCD	3.5” LCD	5” LCD	7” LCD
Type	PCAP Touch	Button	Button	Button	PCAP Touch	PCAP Touch
Brightness	850 NIT	750 NIT	750 NIT	750 NIT	1000 NIT	800 NIT
Data Types / Sources						
J1939	✓	✓	✓	✓	✓	✓
NMEA 2000™	✓	✓	✓	✓	✓	✓
Analogue Inputs	6 +TACH	-	7 + TACH	7 + TACH	1	1
Gateway to NMEA 2000™	✓	✓	✓	✓	✓	✓
GPS Input	NMEA 0183	-	NMEA 0183	NMEA 0183	NMEA 0183	NMEA 0183
External Alarm	✓	✓	✓	✓	✓	✓
Diagnostics						
J1939 DM1	✓	✓	✓	✓	✓	✓
J1939 DM2	✓	✓	✓	✓	✓	✓
CAN Logger	✓	✓	✓	✓	✓	✓
CAN Viewer	✓	✓	✓	✓	✓	✓
Display / Electrical						
Power Requirements	10-32V	10-32V	10-32V	10-32V	8-32V	8-32V
Connection						
Deutsch Ports	2 x 12 pin	1 x 12 pin	2 x 12 pin	2 x 12 pin	-	-
M12 Ports	-	-	-	-	4	4
USB Ports	1 x Type A	1 x Type A	1 x Type A	1 x Type A	1 x Type A	1 x Type A
Communications						
CAN bus Ports	1	2	2	2	2	2
Environmental / Mechanical						
Operating Temp	-30 to +77°C	-20 to +70°C	-40 to +70°C	-40 to +70°C	-20 to +70°C	-30 to +80°C
Degree of Protection	IP67	IP67	IP67	IP67	IP67	IP67
Dimensions (mm)	105.9 Round	84.8 x 44	95.2 x 95.2	117 x 117	133 x 94	181 x 124
Kit Part Numbers						
Universal* (J1939, NMEA 2000™ and Analogue)	9402	9406***	9408	9410	9412	9414
J1939 Only**	9401	9403	9407	9409	9411	9413

*Required to support gateway function **No gateway ***Analogue not available on the R3s

MEM

MARINE ENGINE MONITORS

Optional Accessories

> GPS Sensors

> Analogue Sensors

> Cable Harnesses

The Marine Engine Monitor (MEM) is a fully round, 3" touch, plug and play engine monitor designed to be used with inboard & outboard engines.

The pre-installed software has 4 dial styles based on traditional analogue style gauges, with Black, White, Silver, and Black/Silver faced options.

Swipe actions enable easy viewing of available gauges including RPM with Volts; Speed with Fuel; and a quad layout showing Volts; Fuel Level; Water Temperature; and Oil Pressure, with additional Compass Heading, Engine Hours and Trim as options on its middle dial.

An easy touch menu configuration system offers simple setup with the ability to chose from common manufacturers and engine types, with a comprehensive multi-language text based fault warning and acknowledgement system, and a series of 'hidden until lit' alarm lamps.

The fully round PCAP LCD colour display can be viewed in full sunlight and the ruggedised unit is sealed to meet IP67 standards.

Key features:

/ Compatible with Multiple Engine Types/Brands

/ Compatible with Inboard Engines Including Gas and Diesel

/ Analogue, or NMEA 2000™/J1939 Engines Supported

/ Choice of 4 Traditional Gauge Styles

/ Swipe Between On Screen Gauge Data Types

/ Supports NMEA0183 and NMEA 2000™ GPS Sensors

/ Easy to Configure and Setup

/ Plug and Play

Part Numbers:

3002
3” Touch Screen Display

Hardware	
CPU	STM32F4
Flash Memory	8 MB
RAM	32 MB SDRAM
EEPROM	2 KB

Mechanical	
Case Material	ABS
Case Colour	Anthracite Grey
Dimensions	106mm Round x 60mm Depth

Electrical	
Display	PCAP LCD 2.93" Round
Resolution	432 x 432
Active Area	74.39mm Diameter
Viewing Angle	70° left / right / up /down
Contrast Ratio	700:1
Brightness	850 NIT (cd/m^2) Fully Sunlight Readable
Power Requirements	10V to 32V DC
Sounder	Internal Buzzer
Connection	(2) 12 Pin Deutsch DT04-12PA/12PB Mates with DT06-12SA/12SB respectively

Input/Output / Communications	
Communications	1 x RS485, 1 X CAN bus 2.0B (isolated)

Environmental	
Operating Temperature	-30°C to +77°C
Storage Temperature	-30°C to +85°C
Degree of Protection	IP67 All Round, IP66 Front

VeeConnect modernises traditional switching to integrate onboard electronics at the touch of a screen.

With a robust, solid-state design based on an aerospace pedigree, it offers the highest reliability.

Simple and efficient builder configuration reduces system and installation costs.

VEECONNECT – DIGITAL SWITCHING

VeeConnect is a 12 channel DC Switching Module with a remote touch screen console for streamlined control.

VEECONNECT
DIGITAL SWITCHING SYSTEM

VEECONNECT – DIGITAL SWITCHING SYSTEM

VeeConnect is a 12 channel DC Switching Module with a remote touch screen console for streamlined control, and optional module for integration to mainstream MFD's.

It modernises old switches to integrate onboard electronics at the touch of a screen. With a robust, solid state design based on an aerospace pedigree, this technology allows for efficient builder configuration and reduced system and installation costs.

With IP67 all-round protection, VeeConnect can withstand the harshest of environments whether it is being used in Marine, Utility Vehicle or Industrial markets.

WHAT IS THE VEECONNECT?

The VeeConnect switching system enables the control of onboard switches through sleek slimline display screens or via MFD's. The VeeConnect integrates everyday electronics, ready for use at just the touch of a screen.

Multiple modules can be connected in the same solution to add more switched load channels as required, or operator display screens.

FLEXIBLE, CONTROLLABLE AND CUSTOMISABLE

Each of the VeeConnect's 12 channels are configurable including options such as fuse rating, analogue or digital inputs, switch type (slider, on/off, burst) as well as having a library of predefined icons and switch descriptions available. The diagram below illustrates a variety of switches that can be controlled using the VeeConnect.

Part Numbers:

6001
VeeConnect Switching Module

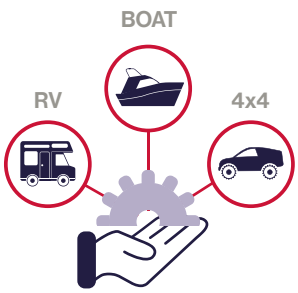
7010
T7i 7" CAN Display

5000
T5 5" CAN Display

T5/T7i Display features:

/ NMEA 2000™ Connected
/ IP67 All Round Protection
/ 5" or 7" Slimline Options
/ Fully Sunlight Readable
/ Touch and Swipe Functions
/ Easy to Configure Interface

Have control at your fingertips on a sleek touchscreen display and eliminate messy wiring throughout your vehicle.

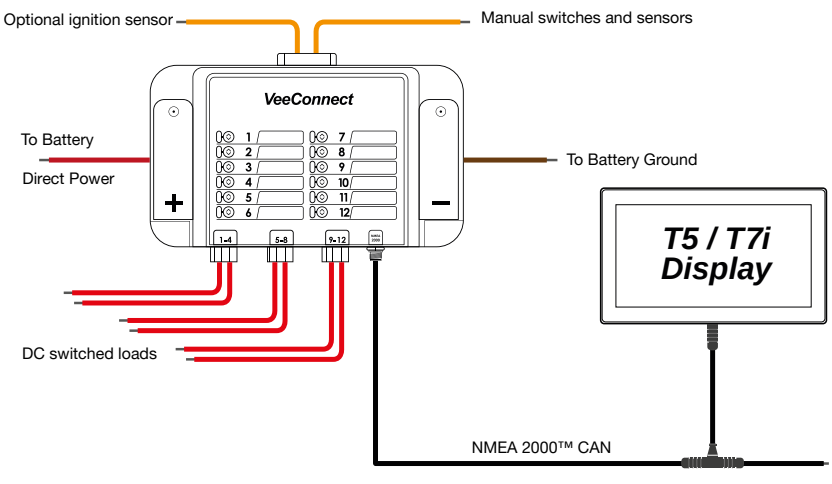


VEECONNECT
DIGITAL SWITCHING SYSTEM

Gain even more control of your boat by connecting the T5 / T7i touch display to our VeeConnect digital switching system.

T5 / T7i = **VEECONNECT**

VeeConnect module connection



VeeConnect features:

- Connects simply to the NMEA 2000™ CAN network
- Handles 12 loads, up to 20 amps each or 170 amps continuous
- Mirrors switches to MFD's with additional unit
- 3 channels support bilge pumps with automatic float switches
- 4 channels support reversible motor capability
- Operates on 12 or 24 VDC systems
- Easy configuration via Veethree's T5 or T7i displays
- Also supports up to 12 digital or analogue inputs for standard switches
- All channels support multiple switch types: on/off, momentary, PWM, and variable voltage slider
- All 12 channels act as electronic circuit breakers
- Sealed to IP67 water proofing
- 4 year warranty

H1

Ethernet Gateway Module

Accessories

> Cable Harnesses

> Front Mounting Kits

> Branding - Labels and Boxes

> GPS Sensor

> Development Harness

> CAN Keypad

Key features:

/ Connects to Garmin™ and Simrad® MFD's via Ethernet

/ NMEA 2000™ Compatible Wake input

Coming soon:

/ J1939 CAN Gateway Function

/ Wireless connectivity for Smart Phones / Keyfobs

/ Additional Switch Inputs

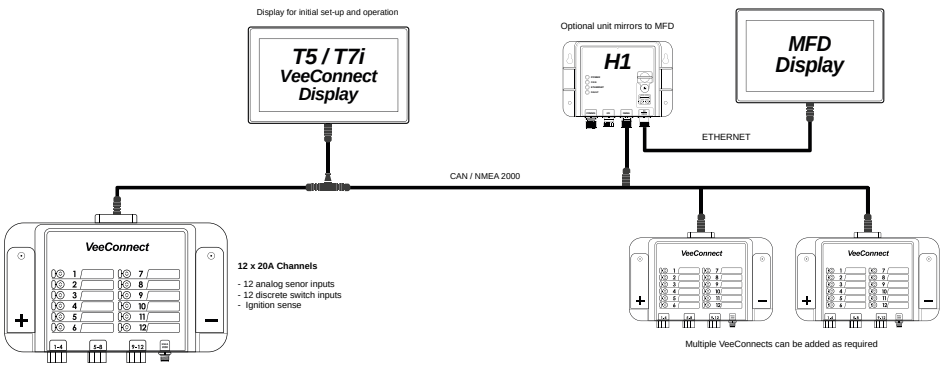
THE H1 MODULE ACTS AS AN INTERFACE BETWEEN THE VEECONNECT UNIT AND GARMIN™ AND SIMRAD® MULTI FUNCTION DISPLAYS.

The unit was designed to provide a cost effective entry level solution to push VeeConnect switching pages to these multi-function displays (MFD's) over Ethernet.

Inital configuration options include via a laptop or a VeeConnect compatible T5/T7i display, or preconfigured profile loaded via USB stick.

It is equipped to meet the challenge of providing tough, flexible, maintenance-free instrumentation in even the harshest of environments.

H1 connection



Part Number:

71818
H1 Gateway Module

Mechanical	
Case Material	ABS/PC
Case Colour	Black
Dimensions	113mm (L) x 164mm (W) x 39mm (H)

Electrical	
Power Requirements	10 V to 32V DC
Connection	**4 x M12 Connectors** **A** - Primary CANbus / Power M12 Male 5 pin A coded **B** - Sensory I/O / Relay Power M12 Female 12 pin A coded **C** - Isolated CAN bus / Power M12 Male 5 pin A coded **D** - Ethernet M12 Female 4 pin D coded

Input/Output / Communications	
3 Analogue Inputs	Software selectable as 0 - 2.5 VDC, 0 - 10 VDC or 0 - 1000 OHMS.
4 Switch Inputs	Activate on contact to ground (active low) and unit wake up on activation
4 Relay Outputs	High side output for 0.50A continuous load TBC
1 Wake Output	High side output to wake up ECBU (active high) sourced from system supply with max load 0.25A

Environmental	
Operating Temperature	-40°C to +70°C
Storage Temperature	-40°C to +80°C
Degree of Protection	IP67

Veethree Group manufacture a wide array of Analogue, J1939 CAN & NMEA 2000™ gauges to fit any situation.

Analogue gauges feature a variety of dials, bezels, colour options, and designs which allow for a nearly custom designed look for any application.

GAUGES

/ Analogue Gauges
/ J1939 CAN bus Gauges
/ NMEA Matrix Gauges
/ Hourmeters

Analogue Gauges

Veethree Analogue Gauges

VEETHREE HAS A WIDE ARRAY OF ANALOGUE GAUGES TO FIT ANY SITUATION. A VARIETY OF DIALS, BEZELS, COLOUR OPTIONS, AND DESIGNS ALLOW FOR A NEARLY CUSTOM DESIGNED LOOK FOR ANY APPLICATION.

Our range of Analogue Gauges includes

Amega

Smart white and red graphics on a black dial background, these very low profile bezels follow the curve of the lens to eliminate water trapping.

Arctic

Stylish white bezel design, black on white graphics, accurate and reliable, these tough instruments look good on all types of boats.

Argent

Black graphics on a silver background, pointer has black hub with fade resistant acrylic orange staff.

Black Premier

White and blue graphics on a black background makes Premier style gauges a smart choice for all modern and traditional boats.

Black Sterling

With its rich lustre and polish, Black Sterling instruments convey a look of utmost sophistication and add elegance to any dash.

DeepVee

In developing the DeepVee series of custom gauges, our engineers started with a clean slate to create a three dimensional formed dial that allows graphics to be used on the retainer.

Depth Gauge

The Veethree Digital Depth Gauge is aimed towards the marine OEM boat builder. Water depth reading to 60m with instant depth readings at speeds up to 100 Kph.

Eclipse

Smart white and blue graphics on a black dial background, these very low profile bezels follow the curve of the lens to eliminate water trapping.

Analogue Gauges

OUR ANALOGUE GAUGES

Veethree has a wide array of analogue gauges to fit any situation.

A variety of dials, bezels, colour options, and designs allow for a nearly custom designed look for any application.

Multifunction Gauge

The multifunction gauge includes a matching temperature sender, pressure sender and a universal fuel sender which can be adjusted to suit tanks between 7 to 24 inches in depth. With its rich lustre and polish, Black Sterling instruments convey a look of utmost sophistication and add elegance to any dash.

These instruments have fire-orange pointer tips and black graphics for a contemporary, ultra stylish look. Black Sterling instruments have clean, crisp black dials which highlight the stainless accents. The gauge body is made of non-corrosive material.

Multi-function gauges can be customised to fit just about any application.

Multifunction

This is a multi-function electrical gauge with Black dial and stainless steel bezel. 86mm gauge which displays voltage, temperature, pressure and fuel level on the same dial. One example of the vast array of multi-function gauges Veethree offers.

Heavy Duty

The Heavy Duty line of gauges is a proven, accurate and reliable solution for a diverse range of applications. The glass lenses are highly scratch resistant, providing a clear view of the fascia for the life of the gauge.

Lido

Stylish stainless steel bezel design, black on white graphics, accurate and reliable, these tough instruments look good on all types of boats. Domed glass sheds water and resists scratching.

Sahara

With crisp tan dials and fire-orange pointer tip, Sahara instruments provide a unique look for your dash. Combined red through-dial and white perimeter lighting provide great readability at night.

Solaris

Stylish stainless steel bezel design, white graphics on spun grey dials, accurate and reliable, these tough instruments are a refined look for any type of vessel. Domed glass sheds water and resists scratching.

Sterling

With black graphics on a brushed aluminum dial, Sterling gauges add a unique, polished look to any dash. Sterling utilises perimeter light to illuminate the dial and black pointers.

White Premier

Ideal for inboards, including diesels, White Premier Pro features white dials with modern black and blue (metric) graphics and superior light pipe illumination. When illuminated, black dial grads become red and pointer lights red.

White Sterling

With its rich lustre and polish, White Sterling instruments convey a look of utmost sophistication and add elegance to any dash. These instruments have fire-orange pointer tips and white graphics for a contemporary, ultra stylish look.

GPS Speedometers

Black graphics on a silver background, pointer has black hub with fade resistant acrylic orange staff. Veethree GPS Speedometers are available in a variety of styles and colors.

J1939 CAN Gauges

Key features:

/ High accuracy engine and data
/ Sealed to IP67 immersion standards and include anti-fog coating
/ CAN bus connectivity – Plug and play connectors
/ Multiple bezel and graphic options
/ Fully sunlight readable LCD on tachometer displays
/ Excellent night visibility

OUR RANGE OF GAUGES DIRECTLY WIRE TO A J1939 COMPLIANT CAN BUS WITHOUT REQUIRING ANOTHER DEVICE TO DRIVE THEM.

Compact and easy to install gauges are available in 2” and 3” sizes, in standard black or white dial colours with chrome plated bezels. Custom styles, colours and CAN protocols are also available.

Fully sunlight readable with LCD’s on tachometers the gauges provide excellent visibility. These rugged, yet stylish gauges, are built to survive the demands of off-road and on-road vehicles, and are completely sealed to meet marine IP67 immersion standards and include an anti-fog coating on the inside of the lens to virtually eliminate fogging. The domed glass lenses minimise reflections, also allowing moisture to run off.

3” gauges feature air core meters and 2” gauges area equipped with stepper motors. LED light piping distributes light evenly behind the translucent dial and the pointer shaft to maximise night visibility. Keyed housing locks the gauge into dashboards precisely and easily, and the gauges are designed and manufactured to the highest standards to meet a full range of specifications from temperature and shock, to humidity and over-voltage requirements.

Electrical movements are magnetically shielded to eliminate electrical interference and are CE certified. Silicone dampening minimises pointer bounce caused by vibrations in harsh Marine environments and reverse polarity protection is designed into every Veethree electrical instrument.

THE VEETHREE GUARANTEE

All Veethree products are backed up by a dedicated and highly experienced team with robust quality procedures.

Parameters Supported:

Engine Temperature
Air Temperature
Exhaust Temperature
Oil Temperature
Oil Pressure
Water Temperature
Water Pressure
Transmission Oil Temp
Transmission Oil Pressure
Coolant Pressure
Oil Temperature
Oil Level
Tank Level
Battery Voltage
Boost Pressure
Engine RPM
Engine Load
Auxiliary Temp
DPF Level
DPF Ash Load
DPF Soot Level
Coolant Level
Coolant Pressure
Manifold Pressure

Alarms

Water in Fuel
Low Engine Oil Pressure
Low Fuel Level
High Engine Temp
Low System Voltage
High System Voltage
DPF Level Alarms
DEF Level Alarms

Matrix Gauges

THE VEETHREE GUARANTEE

All Veethree products are backed up by a dedicated and highly experienced team with robust quality procedures.

THE MATRIX GAUGE SET IS AN AFFORDABLE, HIGH-VALUE RANGE OF DIGITAL INSTRUMENTS DESIGNED TO OPERATE ON MERCURY SMARTCRAFT® AND NMEA 2000™ ENGINES (MAX 4 ENGINES/2 STATIONS.)

Accurate reliable information is provided on a clean, easy-to-read gauge with an LCD display and soft-function tactile buttons for navigating through the menu interface.

With the push of a button the operator has easy access to the status of the engine including fault alerts, diagnostic messages and other important parameter information using SmartCraft® and NMEA 2000™ protocols.

In a Matrix gauge set, the 3' Tachometer is the master and connects directly to the SmartCraft® or NMEA 2000™ data bus. All other gauges are slaves and connect to the Tachometer RS-485 private bus (immune to electrical noise, more robust and reliable.) The Tachometer reads the applicable engine parameters (SmartCraft® or NMEA 2000™) and forwards them on the private bus for the slave gauges. The gauges operate on 12 volt systems and support single, dual, triple or quad engine applications.

Key features:

/ LCD on Tachometer and Speedo displays all available data and alarms
/ Soft-function tactile pushkeys for easy navigation
/ CANbus driven Tachometer
/ Speedo and all 2' gauges receive data from Tachometers
/ IP67 waterproof
/ Plug and play connectors fitted
/ Dry Nitrogen filled to minimise fogging
/ LED dimmable automotive style backlighting (red)
/ Fully sunlight readable display
/ CANbus connectivity

Black or White Chrome Bezel Options Available:

Tachometer with LCD
0 - 7000 RPM - 3"

Tachometer no LCD
0 - 3000 RPM - 2"

Speedometer with LCD
0 - 85 MPH - 3"

Voltmeter 10 - 16V DC - 2"

Voltmeter 20 - 32V DC - 2"

Fuel Primary E-F - 2"

Fuel Secondary E-F - 2"

DEF E-F - 2"

Oil Pressure 0 - 125 PSI - 2"

Turbo Boost - 0 - 60 PSI - 2"

Transmission Oil Temperature
100 - 320°F

Temperature 100-240°F

Hydraulic Oil Temperature
100 - 320°F - 2"

Hydraulic Oil Pressure
0 - 125 PSI - 2"

Auxillary Temperature 1
50-200°F - 2"

Auxillary Temperature 2
50-200°F - 2"

Hourmeters


QUARTZ
HOURS
173.8
1/10
Veethree


QUARTZ
1/10
ENGINE HOURS
4N-3700

HOURMETER RANGE

Low cost range of hourmeters track and record accurate engine running time for all engine types .

LCD and mechanical counter variants, operating at 10-32 volts. Vibration and shock resistance tested to SAE J1378 standards and are protected from reverse polarity.

Featuring dependable quartz stepper motor movement. Our hourmeters are constructed for reliability. Easy to fit, highly reliable and low cost, the range of hourmeters are ideal for marine equipment.

Key features:

/ Highly reliable

/ Low cost drop-in replacement

/ Dependable quartz steppers

/ Efficient lead times

THE VEETHREE GUARANTEE

All Veethree products are backed up by a dedicated and highly experienced team with robust quality procedures.

Specifications:

Counting Range
0 to 9,999.9 Hours
(auto recycle to 0)

Voltage Range
10-32VDC

Accuracy
±0.2%

Case Material
ABS/Polycarbonate

Case Colour
Black

Vibration Resistance
SAE J1378

Protected From
Reverse Polarity

Our range of Sensors and Senders include industry standard resistance curves.

The entire range has 1000's of types available and custom products can be manufactured if required.

SENSORS AND SWITCHES

Our range of Senders, Sensors and Switches are robust and reliable units for measuring Fuel, Pressure, Speed and Temperature, designed for applications in Marine environments.

FUEL

Senders, Sensors and Switches

Our range of Senders, Sensors and Switches are robust and reliable units for measuring Fuel, Pressure, Speed and Temperature, designed for applications in Marine environments.

The following are examples of our product range, please contact us for specific requirements.

REED SENDERS

Reed Fuel Sender

Veethree's reed fuel sender is compatible with a variety of fuel and fluid types, including:

/ Gasoline / Diesel

/ Hydraulic fluids / Black water

/ Grey water

The reed fuel sender unit provides liquid level information via a series of reed switches positioned inside the sealed level tube, a float with built in magnets then triggers the reed relays generating a resistance with an ohm value that increases or decreases.

The float is the only moving part of the sensor, thereby minimizing potential mechanical failures and maximizing flexibility of installation even in tanks with baffles.

CSC FUEL LEVEL SENSOR

CSC Fuel Level Sensor

Using capacitive sening technology, the CSC fuel level sensor measures fuel level with accuracy and resolution. The sensor is a highly advanced sensor for continuously measuring level of the fuel medium in the tank. The fuel medium types that can be measured are: diesel, biodiesel, kerosene and petrol.

The fuel level sensor also auto compensates when a liquid with a different dielectric constant value is used. Additional fuel delivery tubes can be used for running any auxillary engines.

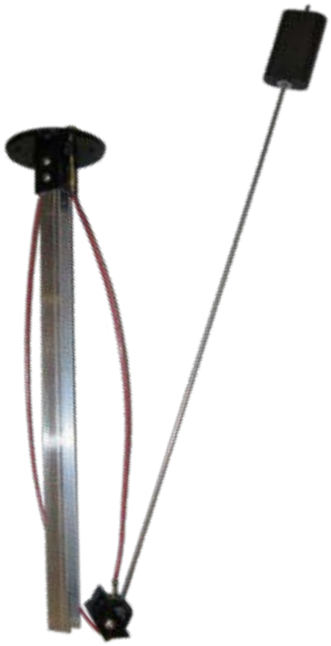
/ Linear Output 0.5 VDC (empty level) to 5 viVDC (full level)

/ Integrated fuel delivery tubes (dual)

/ Available in customised length

/ Medium type: diesel, biodiesel, kerosene, szpetrol

FLOAT ARMS



Fuel Level Sender – Marine

Veethree's fuel sender is designed to meet the complex environments of the fuel system. Made from engineering grade plastics and aircraft grade aluminum, it is designed to work in gasoline, diesel and bio-fuels. Well respected in the industry for its long life and corrosion resistance.

/ Standard 5 hole flange

/ #10 threaded electrical terminals

/ 240-33 ohm range

/ Adjustable for 4"– 24" deep tanks

PRESSURE

Pressure Senders, Sensors and Switches

Our range includes Fuel, Pressure, Speed and Temperature, as examples of our product range.

Please contact us for specific requirements.

PRESSURE SENDERS

Pressure Sender

Veethree Pressure Senders are small, robust and reliable units for measuring gas or liquid pressure.

- / High accuracy
- / Pre-calibrated
- / Available in standard resistances to match Stewart Warner, VDO and AC resistance gauges
- / Excellent repeatability
- / Rugged design
- / High reliability

ELECTRONIC SENSORS

Electronic Pressure Sender

Our heavy duty Electronic Pressure Sensors use piezoresistive sensing technology with ASIC (Application Specific Integrated Circuit) signal conditioning in a brass/steel housing and Metri-pack 150, or cable harness electrical connections.

These are fully calibrated and temperature compensated from -20c to 85c

- Pressure Range: 1bar to 21bar or 15psi to 300psi
- Ratiometric Output: 0.5Vdc to 4.5Vdc
- Fully Calibrated and Temperature Compensated
- Total Error Band: 1.0% FSS
- Insulation Resistance: >IOOMohm, 1500Vdc
- Dielectric Strength: AC1500V 1min or AC1800V 1s
- Current Consumption: 4.5mA max
- Ingress Protection: IP67 (Metri-Pack 150)
- Response Time: <2ms
- RoHS Compliant

PRESSURE SWITCHES

Pressure Switch

Veethree Pressure Switches are small, robust and reliable units used for pressure monitoring in gases and liquids by switching when specific limit is exceeded.

- High accuracy
- Pre-calibrated
- Adjustable switching point
- Excellent repeatability
- Rugged design

TEMPERATURE

Temperature Sensors and Switches

Our range includes Fuel, Pressure, Speed and Temperature, as examples of our product range.

Please contact us for specific requirements.

TEMPERATURE SENSORS

Temperature Sensor

Veethree Temperature Sensors are robust and reliable units for measuring the temperature of various fluids.

These units are ideal for a variety of industries including marine applications where long-term performance under demanding conditions is required.

TEMPERATURE SWITCHES

Temperature Switch

Veethree Temperature Switches are robust and reliable units for monitoring the temperature of various fluids. These units are ideal for automotive, industrial machinery, agricultural, marine and off road equipment applications where long term performance under demanding conditions is required.

Our temperature switches are ideal for applications that require the engine to shutdown after exceeding a specified value.

GPS RECEIVERS

GPS Receivers

The Veethree GPS Receiver is the most accurate solution for converting an existing electrical speedometer into a GPS speedometer, and are compatible with our own range of Digital CAN displays and Gauges as well as offering standard NMEA 0183 outputs.

> Standard GPS with 1-second (1Hz) update rate that outputs NMEA 0183 info

> Fast update GPS with 1/10-second (10 Hz) update that outputs NMEA 0183 info

> Fast update GPS with a 1/10-second (10Hz) update that outputs 8- or 16-pulse signal to drive existing electrical speedos on the market

Please note: gauge not included

Key Features:

/ 1 Hz unit outputs NMEA 0183 data at 4800 baud, 8 data bits, 1 stop bit, no parity (NMEA 0183 standard)

/ 10 Hz unit outputs same NMEA messages at 38,400 baud

/ Receiver output is a differential signal to meet NMEA 0183 specs. (The input on the speedo head is an opto-coupled NMEA 0183 differential input.)

/ Operating voltage is 10-32V DC; unit typically consumes, 50mA at 12V

/ Operating temperature -30°C to +85°C storage -40°C to +125°C

/ Cold/warm/hot start times are <35/<34/<1 seconds

/ 66 channels for acquisition, 22 for simultaneous tracking

/ Position accuracy is “<3m CEP (50%) without SA (horizontal)” or “3.0m 2D RMS”

/ Velocity accuracy is “0.1m/s without aid”

/ The default NMEA output messages are GGA, GSA, RMC, VTG, and GSV

/ For 8/16 pulse unit only: The pulse output is a square wave, low voltage should be <0.5V, high voltage will be (supply-0.5)V.

Product variations

Part No. 68755
Standard update with 25’ harness and no connector (the connector is supplied separately so you can feed this long wire through tight areas and then add the connector).

Part No. 68982
Standard update with 4" harness and no connector.

Part No. 68969
Standard update receiver with 4" harness with connector attached.

Part No. 69053
Fast update NMEA 0183 4" harness with connector attached.

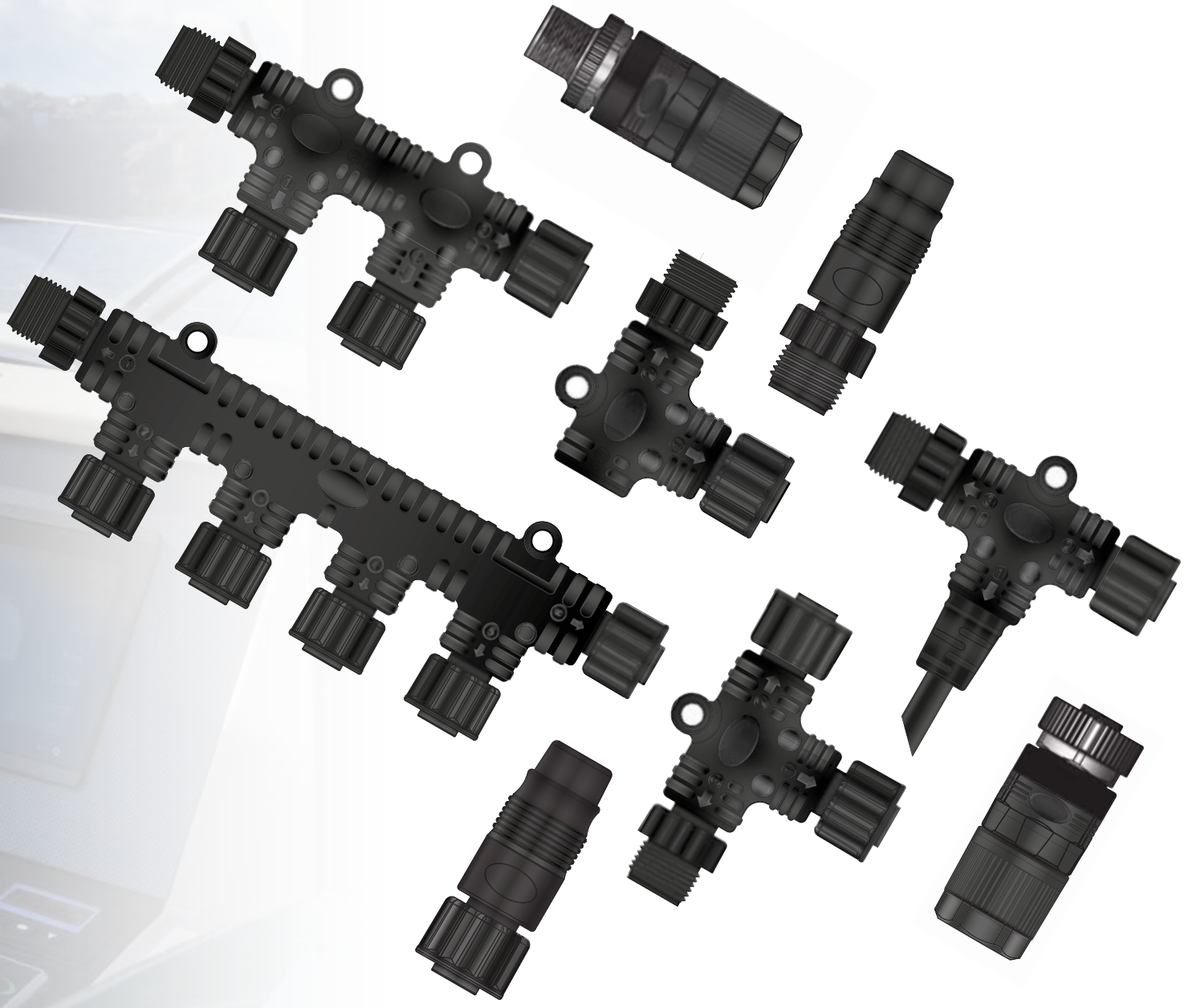
Part No. 69054
Fast update NMEA 0183 4" harness and no connector.

Part No. 69055
Fast update NMEA 0183 25" harness and no connector.

Part No. 69248
Fast update 8/16 pulse output with 4’ harness and ring terminals to connect to threaded #8-32 studs on existing electric speedos (non-GPS speedo heads).

Part No. 68869K
4 pins and connector for units without connector to attach to the Veethree GPS speedometer gauge.

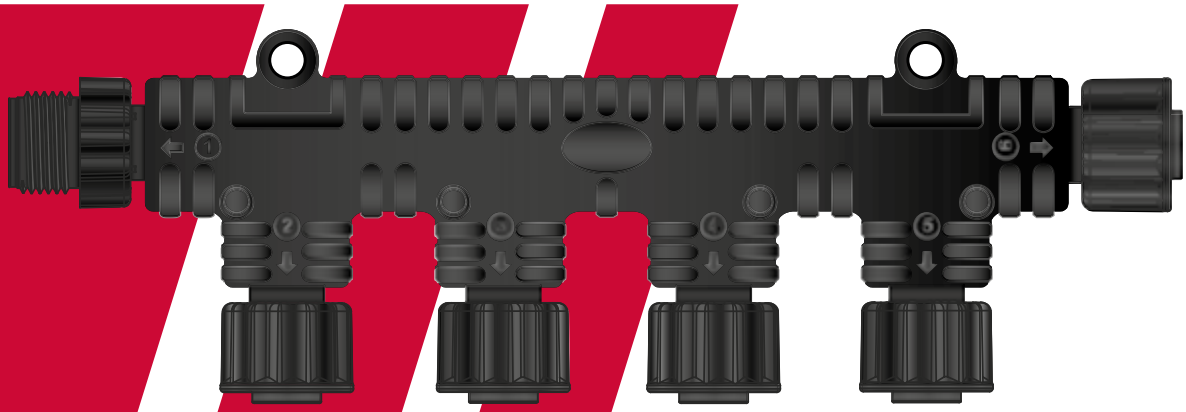
Our range of cables and connectors are designed for use in Marine environments and include the main components required to install an NMEA2000® network on board.



CONNECTORS AND CABLES

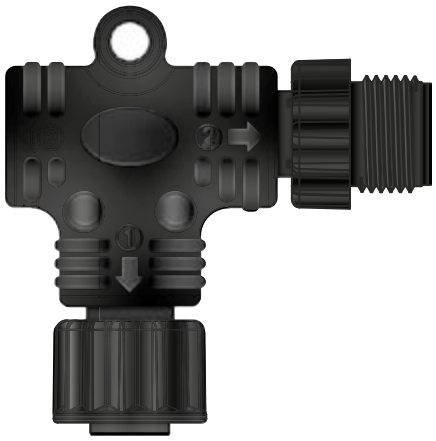
/ for installing NMEA 2000 networks

Connectors



9027

Micro Quad Tee Adaptor



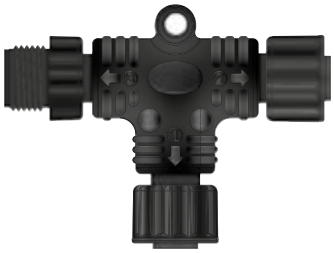
9057*

NMEA 2000 Elbow Adaptor

*Not currently stocked - please contact us to discuss your requirements

Our range of connectors include ...

9026

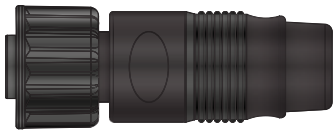


Micro Trunk to Micro Drop Tee Adaptor

9028

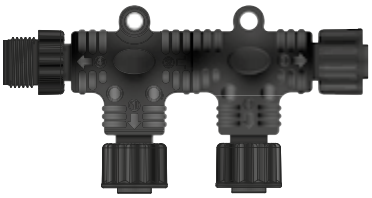
Micro Male Terminator

9029



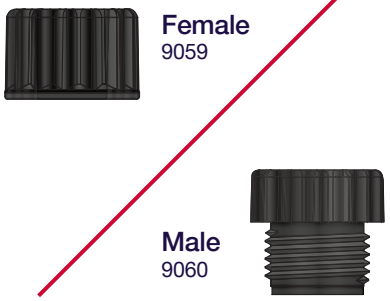
Micro Female Terminator

9058



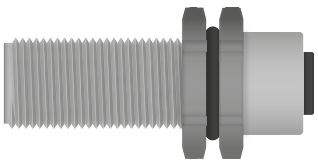
Micro Dual Micro Tee Adaptor

9059 / 9060



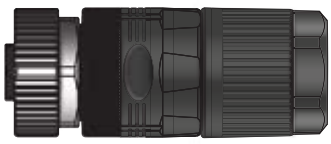
Female / Male Blanking Plugs

9061



Micro Bulkhead Feedthrough

9062



NMEA 2000 Field Installable Screw In (Metal Nut)

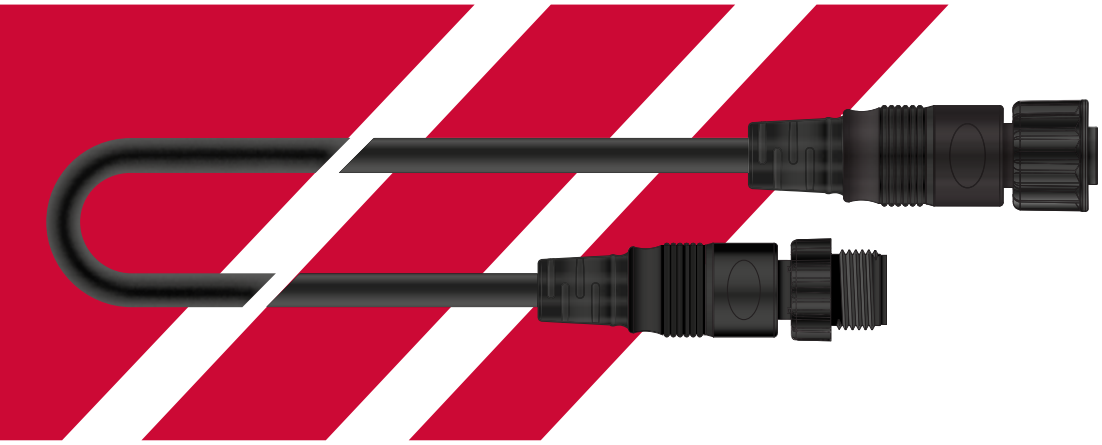
Female connector

9063

NMEA 2000 Field Installable Screw In (Metal Nut)

Male connector

Cables



9030 (0.5 metre)
Micro Trunk drop cable

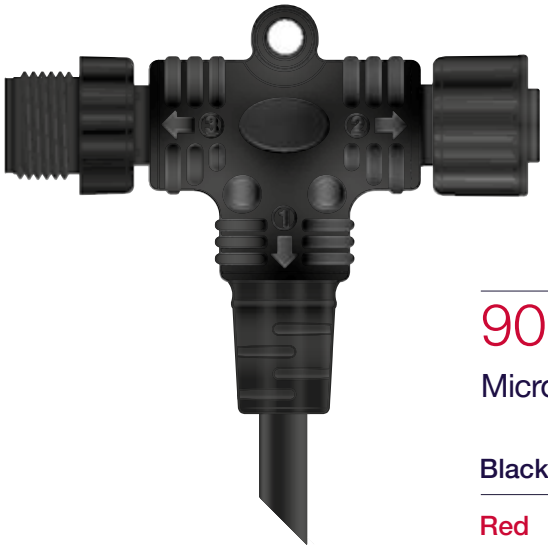
9031 (1 metre)
Micro Trunk drop cable

9032 (2 metres)
Micro Trunk drop cable

9035 (5 metres)
Micro Trunk drop cable

9040 (10 metres)
Micro Trunk drop cable

Please note: Longer cabels can be made to order. Please contact us to discuss your requirements.



9041
Micro Power Tee Dual Feed

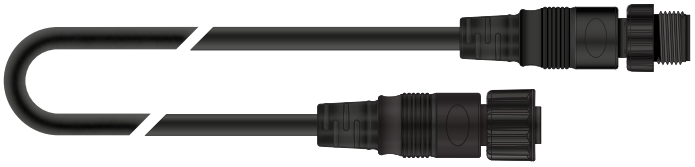
Black	- 0V
Red	- 12V
Grey	- 0V
Brown	- 12V
Green	- Drain

*Not currently stocked - please contact us to discuss your requirements

9031 (Male / Female)

Micro Trunk / Drop Gender Change Cable

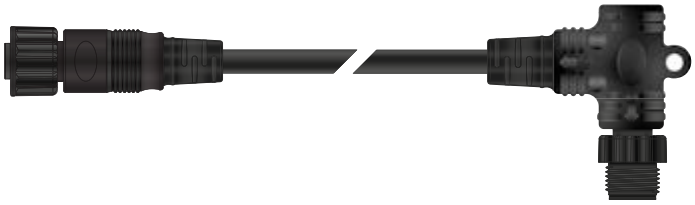
Length: 1.0m



9032 (Male / Female)

Micro Trunk / Drop Gender Change Cable

Length: 2.0m?



90° Drop Cable*

Micro Trunk / Drop Cable 90°
(Male / Female)

Length: 0.5m

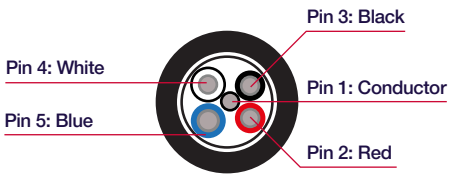
90° Drop Cable*

Micro Trunk / Drop Cable 90°
(Male / Female)

Length: 1.0m

NMEA 2000® connection diagram

NMEA 2000® cables



Connectors

Male

Female

Pin 1: Shield
Pin 2: NET-S (power supply possitive +V)
Pin 3: NET-C (power supply common -V)
Pin 4: NET-H (CAN-H)
Pin 5: NET-L (CAN-L)

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