VEETHREE
GROUP

UEM
UNIVERSAL ENGINE MONITORS

PLUG AND PLAY ENGINE MONITORS DESIGNED TO BE USED WITH ALL ENGINE TYPES. INCLUDING ANALOGUE, J1939 & 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.

Key Features:

> Compatible with Multiple Engine Types / Brands
> All Common Engine Parameters Shown
> All Triggered Alarms Shown
> NMEA 2000 Gateway For Transmission to Other MFDs
> IP67 All-Round Protection
> Plug and Play Installation
> Button Operated and Touch Screen Models Available

Kit Includes:

> Display Preloaded with UEM Software
> Protective Cover
> Harness Cabling Selectable Options Either: Universal Including (J1939, NMEA2000 and Analogue) or J1939 only

Range Comparison

	R3	R3s	C3	C3l	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	✓	✓	✓	✓	✓	✓
NMEA2000	✓	✓	✓	✓	✓	✓
Analogue Inputs	6 +TACH	-	7 + TACH	7 + TACH	1	1
Gateway to NMEA2000	✓	✓	✓	✓	✓	✓
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	-	-	-	-	5	5
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 +60°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, NMEA2000 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

Software

The UEM software includes typical functions used in the Marine sector, offering user friendly selectable icon based display layouts (gauge, numeric, graph or bar) and includes a comprehensive multi language text based fault warning and acknowledgement system.

Configuration options written in the software give the ability to connect to mechanical engines as well as engines with an ECU.

KEY FEATURES

> Compatible with virtually any Engine Type or Sender

> Gateway feature converts incoming data to NMEA 2000 for output to other multi-function displays

> Full J1939 DM1 message centre and parameters

> Supports NMEA 0183 GPS input*

*Excluding R3s

Displayed Data If Received From The Engine and Transmission		Faults (Suspect Parameter Number) Available With Relevant Message Such As Too High/Low
Electrical	**Miscellaneous**	• 5 Volt DC Supply
• Alternator Current • Alternator Potential • Battery Potential Switched • Electrical Potential • Net Battery Current	• CANtx Disable • Current Gear • Selected Gear • Torque Converter Lock-Up Engaged	• Accelerator Pedal Position • Air Inlet Pressure • Auxiliary Temperature #1 • Barometric Pressure • Battery Voltage - Actual • Battery Voltage - Switched • Boost Pressure • Coolant Level • Crankcase Pressure • ECU 8V DC Supply
Fuel	**Percentage**	• Engine Coolant
• Fuel Leakage 1 & 2 • Fuel Rate • Fuel Remaining • Instantaneous Fuel Economy • Total Fuel Used • Trip Fuel Economy • Trip Fuel Rate	• Acceleration Position • Actual Engine % Torque • Coolant Level • Drivers Demand % Torque • Engine Oil Level • Estimated % Fan Speed • Fuel Level • Throttle Position • Torque Use at RPM	• Engine Coolant Pressure • Engine Fuel Metering • Engine Load • Engine Oil Filter Differential Pressure • Engine Oil Level • Engine Oil Pressure • Engine Oil Temperature • Engine Speed • Engine Speed Sensor
Pressure	**Speed**	• Exhaust Temperature
• Air Filter 1 Differential Pressure • Air Inlet Pressure & Air Start Pressure • Auxiliary Pressure 1 • Barometric Pressure • Boost Pressure • Engine Oil Pressure • Fuel Delivery Pressure • Injection Control Pressure • Injector Metering Rail 1 • Pressure Coolant Pressure • Pressure Injector Metering Rail 2 • Transmission Oil Pressure Clutch Pressure	• Engine Desired Operating Speed • Engine Speed • Input Shaft Speed • Turbo 1 Speed **Time** • Total Engine Hours • Trip Engine Hours • Service Hours	• Fuel Level • Fuel Pressure • Fuel Rate • Fuel Temperature • Intake Manifold Temperature • Navigation Based Vehicle Speed • Temperature • Timing Sensor • Total Engine Hours • Total Fuel Used • Transmission Oil Pressure • Transmission Oil Temperature • Water In Fuel
Temperature		
• Air Inlet Temperature • Auxiliary Temperature 1 • Engine Coolant Temperature • Engine ECU Temperature	• Engine Oil Temperature • Exhaust Gas Port 1 & 2 Temp • Exhaust Gas Temp • Fuel Temp	• Intake Manifold 1 Temp • Transmission Oil Temp • Turbo 1 Compressor Inlet Temp • Turbo Oil Temp

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Example Screens

Our products continue to be successfully deployed in an enormously diverse range of applications where total reliability is vital.

Displays are also supported with a return to base extended 24-month Manufacturer warranty against mechanical failure or material defects.

R3 3" round touch display

C3 3.5" colour display

C3I 3.5" low profile colour display

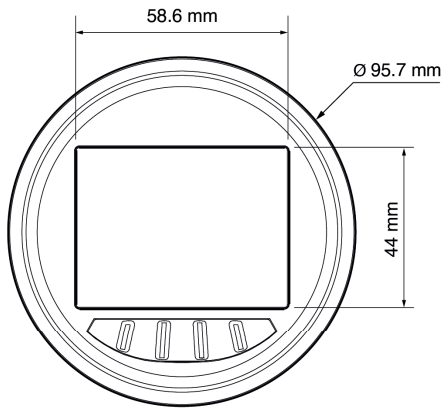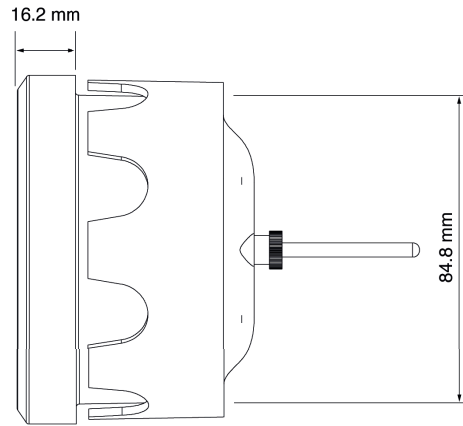
T5 5" touch display

T7i 7" touch display

Dimensions

R3S 2.8" ROUND HOUSING DISPLAY

FRONT VIEW

SIDE VIEW

REAR VIEW

58.6 mm

Ø 95.7 mm

44 mm

16.2 mm

84.8 mm

75 mm

BRP 500797 71080 DATE XXXXX

R3 3" ROUND TOUCH DISPLAY

FRONT VIEW

SIDE VIEW

REAR VIEW

ø74.4mm

ø85.5mm

106mm

16mm

44mm

85mm

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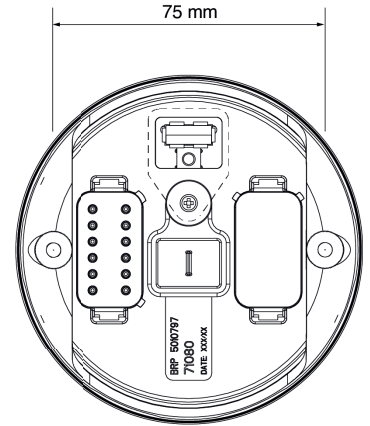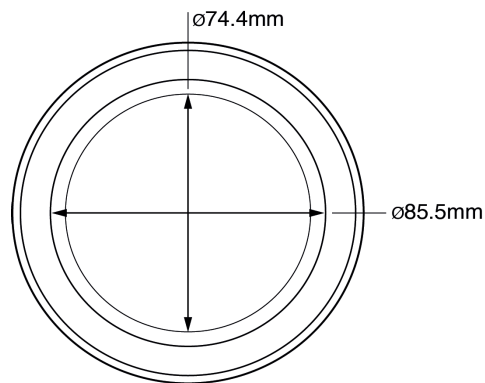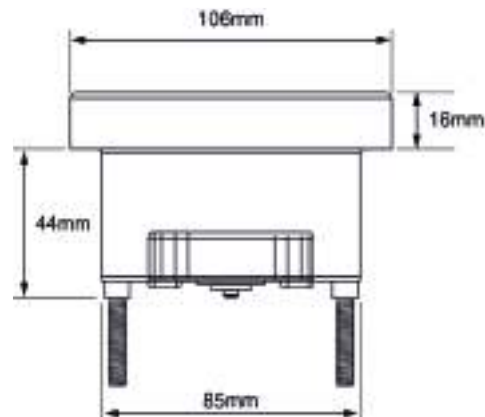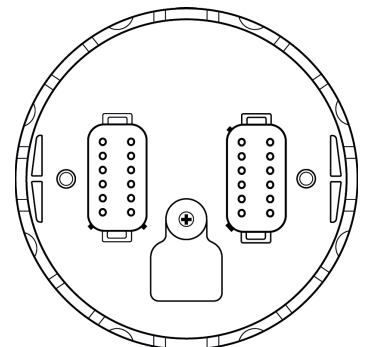
C3 3" COLOUR DISPLAY

FRONT VIEW

SIDE VIEW

REAR VIEW

95.25mm
85.1mm
71.63mm
53.85mm
85.1mm
95.25mm

20.32mm
ø84.84mm

PRIMARY CONNECTOR
MATES WITH DT04-12PA
69.85mm
69.85mm
SECONDARY CONNECTOR
MATES WITH DT04-12PB
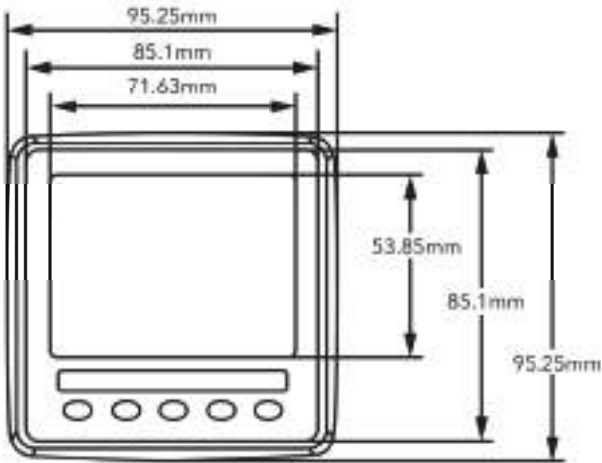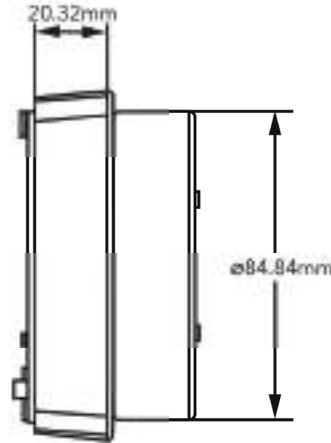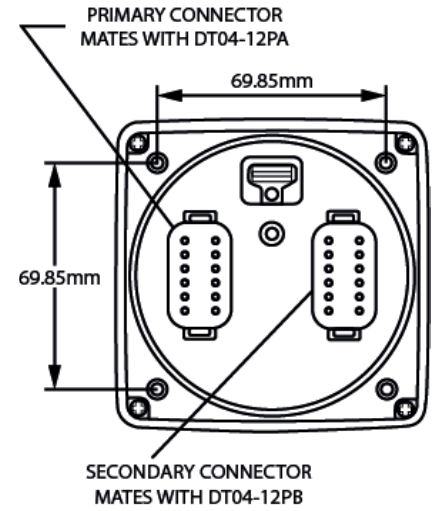
C3L 3" LOW PROFILE COLOUR

FRONT VIEW

SIDE VIEW

REAR VIEW

116.18mm
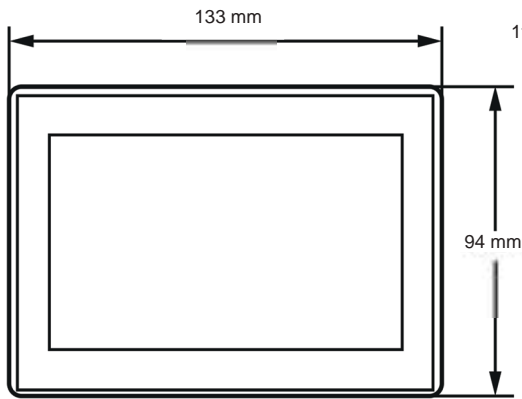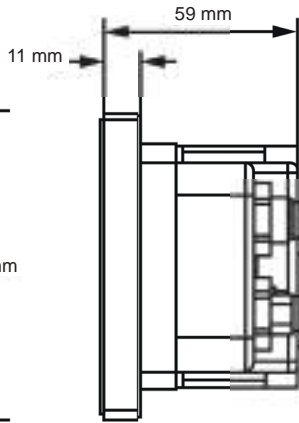72.82mm
54.56mm
116.18mm

UNIT SUPPLIED WITH
PROTECTIVE POLY CLING
FILM APPLIED OVER LENS AREA

10.8mm
95.48mm
40.89mm

PRIMARY CONNECTOR
MATES WITH DT06-12SA
USB CONNECTOR
SECONDARY CONNECTOR
MATES WITH DT06-12SB
4x 99.57mm
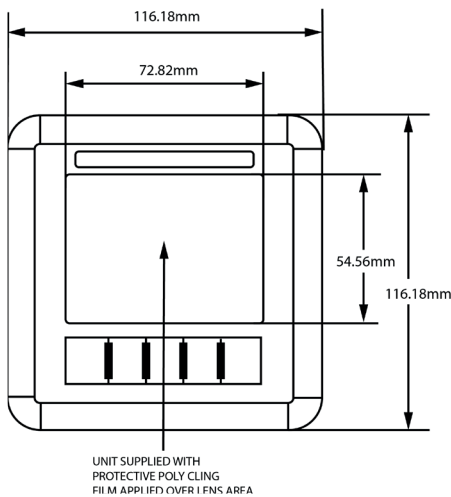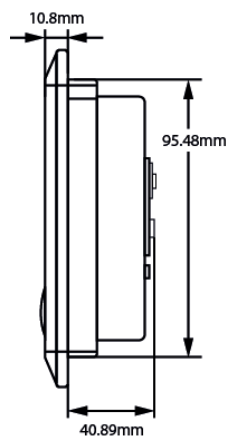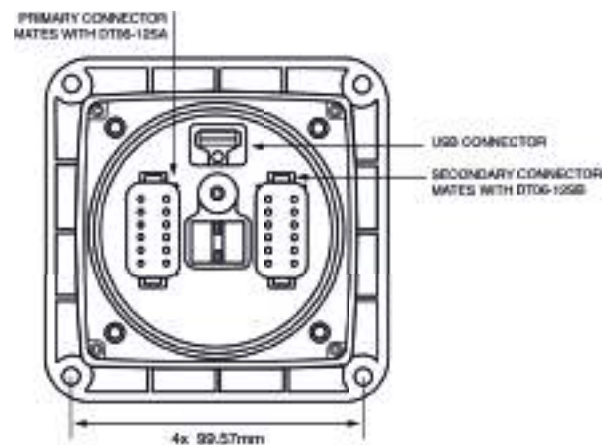
Dimensions

T5 5" TOUCH DISPLAY

FRONT VIEW

SIDE VIEW

REAR VIEW

133 mm

94 mm

59 mm

11 mm

118 mm

74 mm

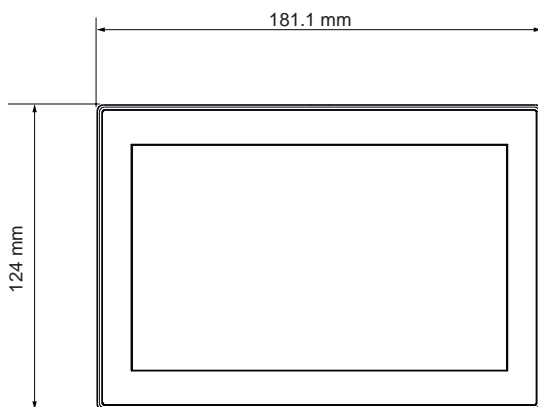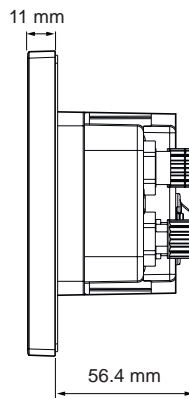### T7I 7" TOUCH DISPLAY

FRONT VIEW

SIDE VIEW

REAR VIEW

181.1 mm

124 mm

11 mm

56.4 mm

118 mm

74 mm