

# Product Catalogue 2019



[www.actisense.com](http://www.actisense.com)

**Actisense®**





# Actisense aim to solve the critical monitoring and control challenges in transportation.

**Our range of products are developed to industry standards and to a high level of quality and technical sophistication.**

With our excellent Customer and Technical Support, we offer the products and service you would expect from an industry leading brand.

We take great pride in our intelligent design and exacting manufacturing standards, ensuring the products we develop are the products you want and need.

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# NMEA 0183 Product Range

**You can be assured our NMEA 0183 product range is built to last. Our robust, high-quality, intelligent designs surpass the NMEA 0183 specifications.**

**Actisense NMEA interfaces enable users to get the most out of their instruments and on-board PCs.**

All of our NMEA 0183 products use our OPTO-isolation technology to protect both the NMEA 'Talker' device and the Actisense product from ground loops and power spikes. With pluggable screw connectors, wiring is quick and simple.

Our NMEA 0183 products make it possible to create a network of shared information between devices from different manufacturers. By interfacing between Talkers and Listeners, we ensure the data is available where and when you need it.

#### **ISO-Drive™ from Actisense**

Our ISO-Drive technology provides an isolated output, protecting against the ground loops than can easily occur in NMEA 0183 installations and damage connected equipment.

**Actisense®**



**Our in-house Research and Development Team have created a range of innovative, intelligent products that exceed the NMEA standards.**

With a highly skilled and qualified Technical Support Team on hand to ensure the best possible all round service during and after the purchase of your Actisense product.

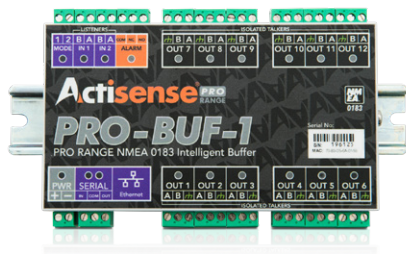
Our collaboration with the NMEA and other leading manufacturers means we are well placed to lead the industry with our advanced product designs.

A stylized, handwritten signature in black ink, likely belonging to Phil Whitehurst.

**Phil Whitehurst**  
CEO

# NMEA 0183

## Professional Range



### PRO-BUF-1

Professional NMEA 0183 Buffer

Adaptable NMEA 0183 Buffer with a variety of operating modes.

Provides two OPTO-isolated inputs and twelve ISO-Drive™ outputs, keeping devices safe from hazardous ground loops.

Works well with:  
DIN-KIT-2 | DB9-F



DIN-KIT-2



DB9-F



### PRO-MUX-1

Professional NMEA 0183 Multiplexer

Creates a tailored network, route any of the eight outputs to any of the six inputs.

The bi-directional serial port and Ethernet port allow for simple configuration using our software.

Works well with:  
DIN-KIT-2 | DB9-F | USA-1



DIN-KIT-2



DB9-F



USA-1

# NMEA 0183

## Product Range



### NDC-5

NMEA Multiplexer

The reliable multiplexing that you would expect, with the addition of an Ethernet port for configuration and diagnostics.

Advanced filtering gives exacting control of the data available on each output.

Works well with:  
RJ45-FFC | DB9-F | USA-2



RJ45-FFC



DB9-F



USA-2



### NBF-3

NMEA Buffer

Ground breaking ISO-Drive technology from Actisense means you can safely connect to 6 NMEA 0183 Listeners to the NBF-3 with complete peace of mind that your devices are safe from hazardous ground loops.

The OPTO-isolated input also protects the connected Talker.

Works well with:  
DIN-KIT-1



DIN-KIT-1

# NMEA 0183

## Product Range



**NGW-1**  
NMEA Conversion Gateway

The NGW-1 provides an easy way to link between NMEA 0183 and NMEA 2000 networks.

Use additional NGW-1 units to multiplex numerous NMEA 0183 devices onto the NMEA 2000 network. Share the data from many NMEA 0183 devices.

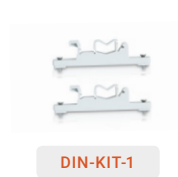
Works well with:  
**STNG-A06045 | DB9-F**



**USG-2**  
USB to NMEA 0183 Gateway

Advanced technology for safe, reliable and simple connection of your NMEA 0183 devices to your PC's USB port.

Works well with:  
**DIN-KIT-1**



**DST-2**  
Depth, Speed and Temperature Module

The DST-2 is the market-leading way to take analogue transducers into the digital age.

When used with new or existing transducers fitted to a vessel, the DST-2 digitises depth, speed and temperature transducer signals into NMEA data to deliver best-in-class seabed tracking.

Works well with:  
**DB9-F**



**OPTO-4**  
Serial Opto Isolator

Safely connect your PC to your NMEA 0183 network.

The OPTO-4 is a bi-directional interface cable which provides a safe method of connecting an NMEA 0183 system to a standard 9-pin serial port (RS232).

## DISCOVER MORE

Visit our website [www.actisense.com](http://www.actisense.com) for more information

Our solutions are designed specifically for the Commercial and Leisure sectors. Discover how Actisense products can make a difference to your network.





# NMEA 2000® Product Range

**The simplicity of installing and configuring an NMEA 2000 network can reduce costs, with power and data shared on a single cable.**

**Actisense®**

**We collaborated with the NMEA to develop the NMEA standard. This makes us a go-to authority on NMEA 2000 and our products are at the heart of the standard and its continued development.**

Our NMEA 2000 products are NMEA certified so you can relax knowing you have Actisense onboard.

We have developed a range of products to make the transition from NMEA 0183 to NMEA 2000 as smooth as possible.

Our Research and Development team have created a range of interfaces to connect directly to an NMEA 2000 network.

# NMEA 2000®

## Product Range



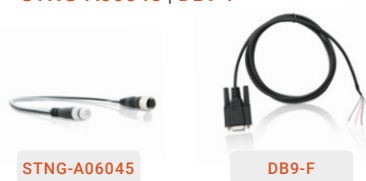
### NGW-1

#### NMEA Conversion Gateway

The NGW-1 provides an easy way to link between NMEA 0183 and NMEA 2000 networks.

Use additional NGW-1 units to multiplex numerous NMEA 0183 devices onto the NMEA 2000 network. Share the data from many NMEA 0183 devices.

**Works well with:**  
STNG-A06045 | DB9-F



### NGT-1

#### NMEA 2000 to PC interface

The NGT-1 is an intelligent NMEA 2000 gateway able to precisely transfer messages to and from the NMEA 2000 bus.

The diagnostic NMEA Reader software allows viewing of NMEA 2000 messages with configuration options. This enables the set up of Actisense and many other manufacturers products.

**Works well with:**  
STNG-A06045



### NGW-1-STNG

Integrate seamlessly with Raymarine® products

The NGW-1-STNG enables users to convert NMEA 0183 data into SeaTalk<sup>NG</sup> and vice-versa by combining a standard NGW-1-ISO with a Raymarine® SeaTalk<sup>NG</sup> adapter cable to interface legacy instruments to the NMEA 2000 based SeaTalk<sup>NG</sup> bus.



### EMU-1

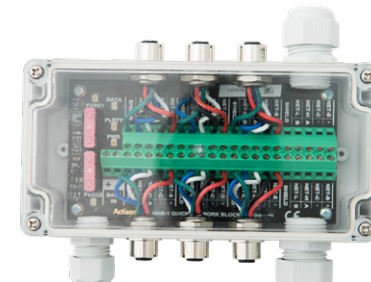
#### Engine Monitoring Unit

The EMU-1 enables the sharing of engine data throughout the NMEA 2000 bus.

It digitises analogue engine sensors, enabling all NMEA 2000 display devices to monitor the connected engine(s) on a vessel.

Each EMU-1 can be configured to suit the engine it is working with, offering a flexible solution for multiple engine makes and models. Capable of reading a wide range of engine parameters, the EMU-1 will report how the engine is operating and share the information across the network.

**Works well with:**  
STNG-A06045 | DIN-KIT-1 | NGT-1 | A2K-SCREWCAP-10



### QNB-1

#### Quick Network Block

The QNB-1 and QNB-1-PMW provide alternatives to multiple connectors, reducing the cost of an NMEA 2000 cable installation.

Perfectly suited to areas of high instrument density, as six drops can be connected.

The LEDs provide information for the installer during set up and to indicate the presence of data, power status, power reversal and to show whether the fuses are intact.

The QNB-1-PMW version is fitted with six standard NMEA 2000 M12 (micro) female connectors allowing 'plug and play' connections for quick and easy installation.

**Works well with:**  
A2K-COVERS | A2K-SCREWCAP-10





# New for 2019



## W2K-1

NMEA 2000® to WiFi Gateway

A compact, low power NMEA 2000 to WiFi Gateway with data recording.

Analyse race data, generate log books, diagnose network issues and share voyage data. The W2K-1 will transfer NMEA 2000 messages or convert them to 0183 (and vice versa).



## ATN-1

Analogue to NMEA 2000 Interface

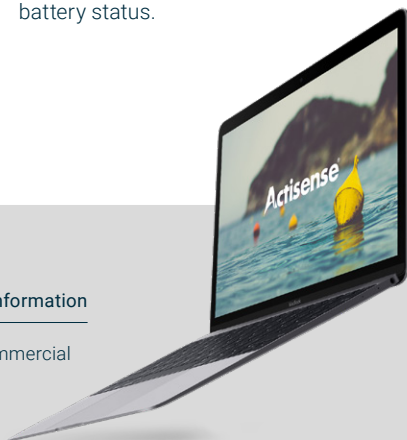
A single channel voltage and sensor interface that can provide NMEA2000 data from a variety of sources including battery, resistive sensors and gauges.

Ideal for measuring parameters including fluid level, rudder angle, tilt/trim, temperature, pressure and battery status.

## DISCOVER MORE

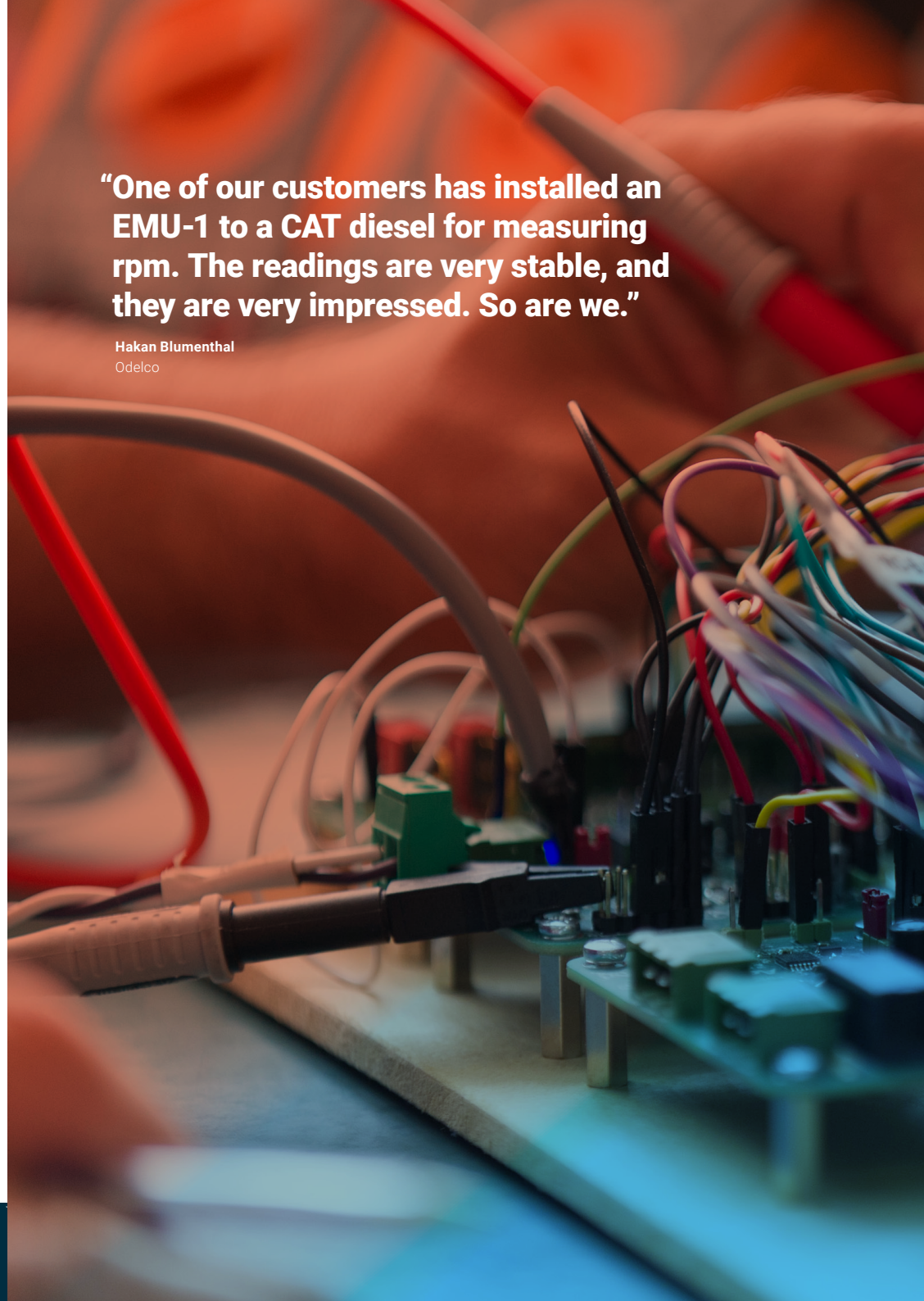
Visit our website [www.actisense.com](http://www.actisense.com) for more information

Our solutions are designed specifically for the Commercial and Leisure sectors. Discover how Actisense products can make a difference to your network.



**"One of our customers has installed an EMU-1 to a CAT diesel for measuring rpm. The readings are very stable, and they are very impressed. So are we."**

Hakan Blumenthal  
Odelco





# A2K Range

## NMEA 2000® Networking



**A2K-KIT-1**  
Starter Kit

All the cabling and connectors you need to get your NMEA 2000 network up and running.



**A2K-RSK-1**  
RIB Starter Kit

Installing small NMEA 2000 networks is quick and easy with the RIB starter kit.



**A2K-T-MFF**  
T-Piece

The heart of an NMEA 2000 backbone for where a single drop is required.



**A2K-4WT**  
4-way T-piece

Expand your backbone simply, integrate the A2K-4WT to add multiple drops.



**A2K-TDC**  
Backbone & Drop Cable

Available in lengths between 0.25m and 10m, the cable assemblies can be used to expand the network.



**A2K-SBN-1**  
Small Boat Network

An instant NMEA 2000 network for four devices with built-in termination resistors, connect the power and you are ready to go.



**A2K-MPT-1**  
Power T-Piece

Power for your NMEA 2000 bus with plug-and-play connectivity.



**A2K-BULK-100m**  
Bulk Cable Reel

Available in 100m reels and ideal for use with the Quick Network Block or Field Fit Connectors.



**A2K-FFC**  
Field Fit Connectors

Straight and right-angled versions, with male and female options to solve problem installations.



**A2K-TER**  
Termination Resistors

Terminate your backbone with our male and female resistors to ensure signal integrity.

All A2K Range products have Micro Connectors and Lite cable, UL Certified

All A2K Range products have Micro Connectors and Lite cable, UL Certified

# A2K Range

## NMEA 2000® Networking



**A2K-GC**  
Gender Changer  
Cables

Overcome the problem of same gender connections.



**A2K-PMW**  
Panel Mount Wired  
Connectors

Enable NMEA 2000 installations through watertight bulkheads or panels, with male and female connectors.



**A2K-4WD-1**  
4-Way Drop

Use where multiple drops are required in a single location.

## DISCOVER MORE

Visit our website [www.actisense.com](http://www.actisense.com) for more information

Our solutions are designed specifically for the Commercial and Leisure sectors. Discover how Actisense products can make a difference to your network.



All A2K Range products have Micro Connectors and Lite cable, UL Certified

# Actisense create the best smart-sensing connectivity solutions.

**Actisense®**



# NMEA Software

**For NMEA network diagnostics or the configuration of Actisense devices, download our free and easy to use software options.**

The Actisense team have developed two powerful software tools to enable customers to view and diagnose any potential network problems quickly and easily. Use the free Actisense SDK to write your own software for use with our devices.

## NMEA & EBL READER Software

NMEA Reader can be used with the NGT-1 NMEA 2000 PC Interface to view information from the NMEA 2000 network. NMEA 0183 Information can also be displayed using a USG-2 serial to USB Gateway. EBL Reader allows EBL log files recorded by NMEA Reader to be viewed and analysed.

### NMEA Reader:

The NMEA Reader PC software allows Actisense NGT-1 owners to view NMEA 2000 information directly from the network and easily identify problems.

NMEA Reader is incredibly useful as it breaks down the unreadable binary NMEA 2000 messages into easy to read values.

NMEA Reader is adept at displaying NMEA 0183 information, either through the Actisense USG-2 or any other safe connection to a PC like the OPTO-4.

This powerful diagnostic tool helps the user to understand and identify exactly which devices are active on the NMEA 2000 network, providing the details of each one.

### EBL Reader:

The EBL Reader utility software allows any EBL log files recorded by NMEA Reader to be viewed.

These recorded data files enable basic diagnostics and the analysis of NMEA 2000 and NMEA 0183 network problems.

This tool has been designed to make life easier for the installer as logged files from NMEA Reader can be viewed and analysed.



## SDK

### Software Development Kit

The SDK package contains all the documentation, C/C++ source code and example (Visual Studio) projects necessary to understand and integrate the ActisenseComms DLL. It will allow a software developer to create a communications interface to any compatible Actisense product in a short period of time.

**Actisense products compatible with the ActisenseComms SDK are:**

**NGT-1 NMEA 2000 to PC Interface**

**NGW-1 NMEA Conversion Gateway**

The SDK forms the first level of support in using the ActisenseComms DLL to communicate with the NGT-1 and the NGW-1.

The ActisenseComms 'Demo Project' is included in Windows executable C++ source-code and Visual Studio Project form. It is a fully working example of how to use all of the possible API commands to talk to and configure the NGT-1, including how to send and receive NMEA 2000 messages. A simple dialogue program, it has been written specifically to help new developers integrate the ActisenseComms API into their software applications quickly and efficiently. This is the first point of call for all developers, to get started with their project.

### To further support the integration we also have:

ActisenseComms VB.Net Wrapper is a starting point for understanding how to 'wrap up' the ActisenseComms DLL in VB.Net friendly code. It allows the C-code interface of the ActisenseComms API to be used easily inside a VB.Net environment. This wrapper example has been kindly supplied by one of our first developers as a guide for other

developers. It does not include an example 'Test' project and will require an additional user code to be added to complete the project.

ActisenseComms CS 'C# Wrapper' Test Project is a complete C# working project that 'wraps up' the ActisenseComms DLL in C# friendly code. It allows the C-code interface of the ActisenseComms API to be used easily inside a .Net C# environment. All documentation, C# source code and an example of the 'Test' project which is necessary to understand, prove and use the ActisenseComms C# Wrapper with the DLL is included.

The ActisenseComms SDK and Wrappers are available to download without charge, please contact the Actisense Support Team to discuss your project requirements and obtain the passwords necessary to access the files.

For non-Windows based platforms (Mac, Linux and embedded/PLC), developers should contact the Actisense Support Team to discuss access to the ActisenseComms Component Library.

At Actisense, we love what we do and we love the technology that we create. There is so much we could tell you.

That is why for our website we have created  
**Geek Mode.**

(Just in case you want to know all the amazing geeky details, just switch it on)

**GEEK MODE ON**

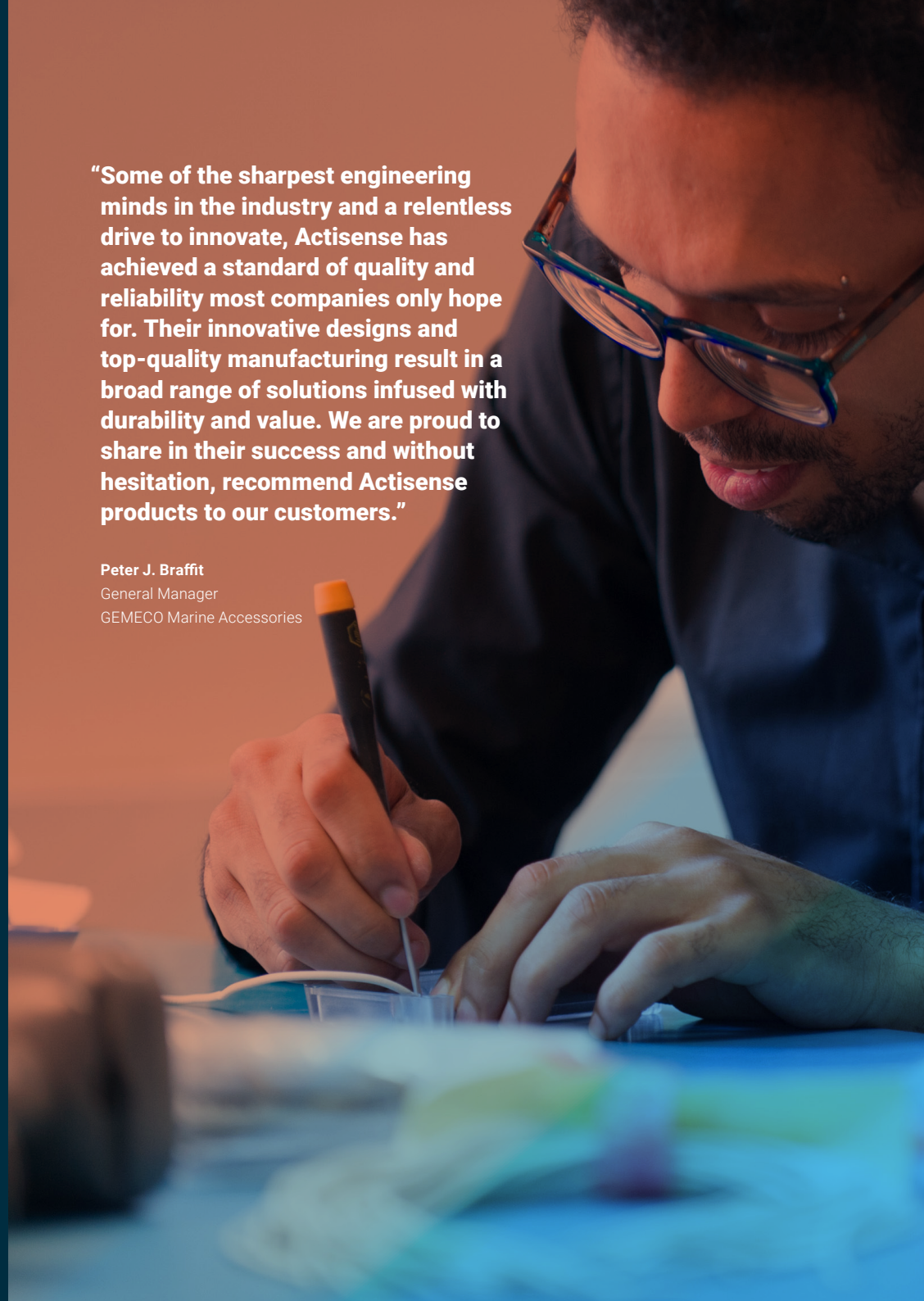


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"Some of the sharpest engineering minds in the industry and a relentless drive to innovate, Actisense has achieved a standard of quality and reliability most companies only hope for. Their innovative designs and top-quality manufacturing result in a broad range of solutions infused with durability and value. We are proud to share in their success and without hesitation, recommend Actisense products to our customers."

**Peter J. Braffitt**  
General Manager  
GEMECO Marine Accessories





Product Code  
M-ACTI2019-1



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