

# New Product Developments Newsletter

WINTER / SPRING 2009

Welcome to this special edition of the SEA CON® Group newsletter which contains all of the latest product developments that have taken place across all divisions within the SEA CON® Group. We hope you enjoy reading this newsletter and would welcome any comments that you wish to make. If you would like to receive further information on any of our products or services then please contact us. Tel +1 (619) 562-7071 or e-mail [seacon@seacon-usa.com](mailto:seacon@seacon-usa.com)

## New G3 Optical Wet-Mate Connector

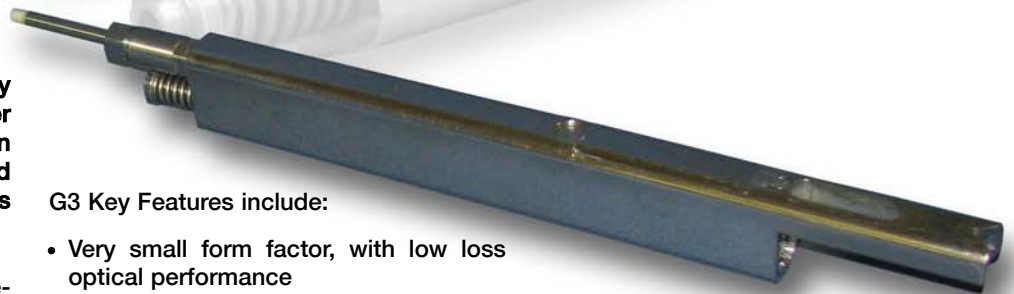
As organizations in the subsea industry develop more applications with fiber optic technology in mind, there has been a dramatic increase in the quantity and complexity of connector configurations needed to fit these applications.

In order to meet the changing requirements of customers, the SEA CON® Group has developed a comprehensive and extensive range of fiber optic products which are designed and manufactured to meet the specific and varied environmental conditions imposed on connectors today.

One of SEA CON®'s latest fiber optic developments is the G3 optical wet-mate connector. Manufactured by SEA CON Advanced Products, LLC in Bellville, Texas, this new, third generation connector utilizes existing HydraLight technology and is available in 6 channels with either single-mode or multi-mode optical fibers. The G3 offers low profile optical connectivity combined with simplicity of operation and is ideally suited for tight interfaces requiring low loss optical performance. This connector can incorporate flat or angle polished contacts making it ideal for either signal communication systems or optical measurement and sensing systems such as tubing hanger connections, tree connections, riser monitoring systems and life of field seismic systems (LoFS).

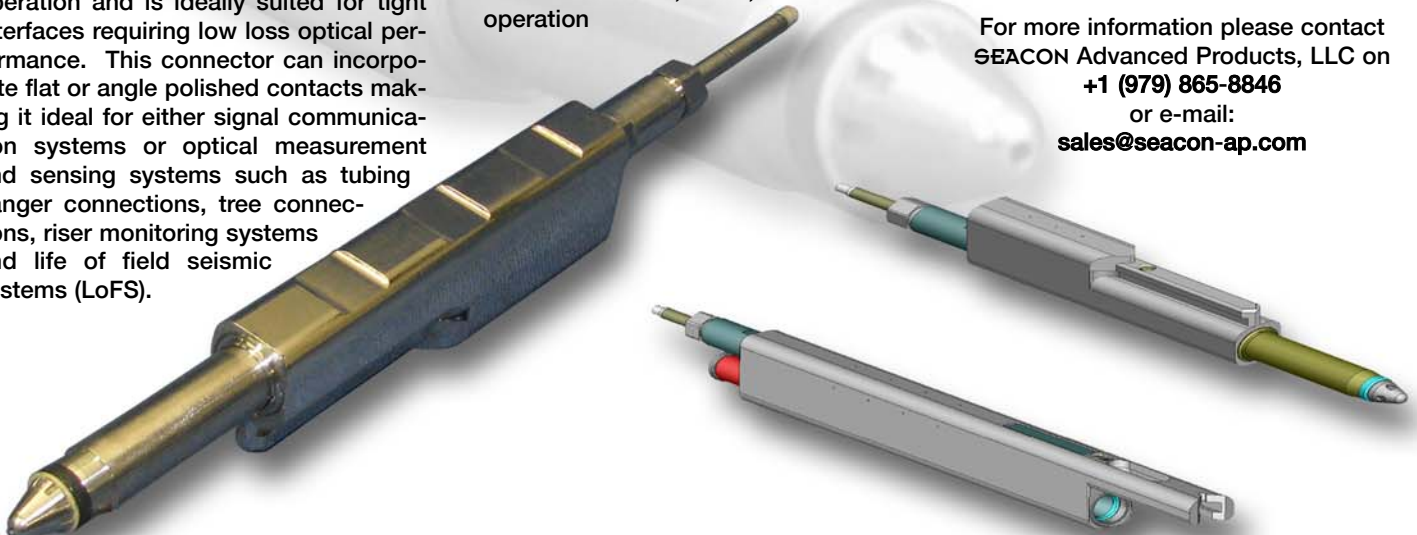
G3 Key Features include:

- Very small form factor, with low loss optical performance
- Matched pairs not required
- Internally pressure compensated
- Elastomers suited for harsh chemical environments
- Few internal moving parts
- Maximum operating pressure 15,000 psi
- 6 channels
- Body Material: 316 Stainless Steel, Titanium or other customer specific materials
- Optical Fiber: Single and Multi-mode
- Simplicity of operation
- Patented "Joined Chamber" concept
- Suitable for ROV, Diver, or Stab Plate operation



*New G3 Connectors*

For more information please contact  
SEA CON Advanced Products, LLC on  
+1 (979) 865-8846  
or e-mail:  
[sales@seacon-ap.com](mailto:sales@seacon-ap.com)



### New CS-MS Dry-Mate Connector Series

The SEACON® Group is pleased to introduce a new range of underwater electrical dry-mate connectors.

Originally developed in conjunction with C.R. Encapsulation to meet the needs of ROV manufacturers and their equipment suppliers, the CS-MS series offers a standard aluminum shell with dual o'rings and is designed to accommodate a standard oil-filled hose.

Currently available in 2 shell sizes with 3 to 10 contact configurations as well as a single channel fiber optic version, this high specification and high integrity connector fits industry standard bulkhead interfaces and is available in alternative materials including Stainless Steel and Titanium and can be molded to many standard cables.

Pressure rated to 10,000 psi, this new series is also suitable for a variety of other applications including underwater cameras and lights, diver communications, recreational submersibles, towed array cable systems, current meters, animal migration research and food processing equipment.

For further information please view our website at:

[www.seacon-usa.com](http://www.seacon-usa.com)

or e-mail: [sales@seaconglobal.com](mailto:sales@seaconglobal.com)

For details on our single-channel fiber optic version please email:

[sales@seacon-ap.com](mailto:sales@seacon-ap.com)



CS-MS Connectors

### New SEA-MATE Wet-Mate ROV Connector

SEACON (europe) Ltd is pleased to announce a new addition to it's popular SEA-MATE underwater electrical wet-mate connector range.

Adapted from the standard diver mated screwed coupling version, the SEA-MATE ROV connector was primarily developed for an oceanographic

subsea monitoring system which had to be modular to allow for easy installation and reconfiguration. The new connector's key requirements were that it had to be low cost with wet-mate ability to a depth of 13,500 psi (9,250m) without using costly fluid filled pressure compensated connector options.

The new SEA-MATE ROV series fills the gap between low cost rubber molded connectors and high integrity oil-filled pressure compensated connectors. The

technology adapted and enhanced in this new connector comes from the well proven WET-CON/ALL-WET industry standard connectors that have been manufactured by SEACON® for several decades.

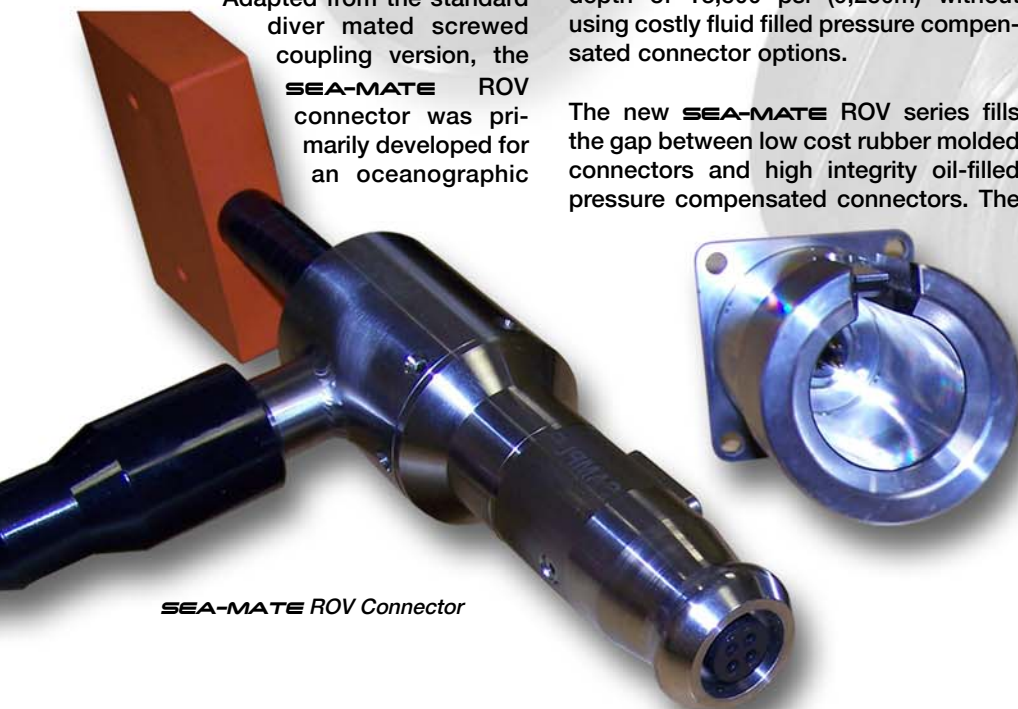
The SEA-MATE ROV is ideally suited for systems that do not require high numbers of mate and de-mate cycles and those that allow the socket portion of the connector to be recovered for maintenance every 5 to 10 mate and breaks (it is recommended a full sealing cap is utilized during this process to protect the pins from damage).

Having successfully completed and passed third party customer testing, new contact configurations are due to be added shortly in order to expand and enhance the range.

For further information and additional testing details, please contact SEACON (europe) Ltd on:

+44 (0) 1493-652733

or e-mail: [sales@seaconeurope.com](mailto:sales@seaconeurope.com)



SEA-MATE ROV Connector





## Smaller ALL-WET Miniature Hermaphroditic Bulkhead Connector Now Available



*New MAW Connector*

SEACON Global Production is pleased to offer a new smaller version of our ALL-WET miniature hermaphroditic bulkhead connector.

Originally developed for a university project, this new, smaller MAW connector is available in a variety of materials including Titanium and has a pressure rating of up to 10,000 psi. This new product also offers the same functions and specifications as our current version and is compatible with existing mating parts. A size comparison of the existing and new smaller version is shown below:-

	Current version	New version
<b>Overall length:</b>	2.01 inches	1.77 inches
<b>Thread size:</b>	1/2-20	3/8-24
<b>Outside diameter:</b>	1.00 inches	0.50 inches

For further information please contact SEACON Global Production on:  
**+52 (664) 626-2726**  
 or e-mail: [sales@seaconglobal.com](mailto:sales@seaconglobal.com)

## New Rubber Molded Connector

SEACON Global Production has developed a RMG-3-BCL connector to protect against Cathodic Delamination issues.

Previously rubber molded inserts were manufactured by bonding the rubber connector body to the metal bulkhead shell. This new development uses a GRE (Glass Reinforced Epoxy) insert which is sealed into the shell via an internal o'ring.

This insert can then be overmolded in a variety of materials including Neoprene, Hypalon and Polyurethane to form the connector sealing interface.

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**+52 (664) 626-2726**  
 or e-mail: [sales@seaconglobal.com](mailto:sales@seaconglobal.com)



*New RMG-3-BCL*

## Ethernet Connector Up-Date

With ever increasing inquiries for connectors to be used for Ethernet applications, SEACON (europe) Ltd is pleased to announce the successful development of a 4 way version of the SEA-MATE wet-mate connector which under test performed perfectly at 100mbits Ethernet speed at 10,000 psi.

Development in this newsletter) which was then successfully tested to 13,500 psi.

This system has been incorporated into the right angle SEA-MATE ROV assembly (see SEA-MATE ROV Connector



*4-Way SEA-MATE Ethernet Connector*



### FEBRUARY 2009



#### DEEP OFFSHORE TECHNOLOGY 2009

<http://dot09.events.pennnet.com>

New Orleans, Louisiana, USA

Feb. 3rd - 5th, 2009

Booth #216



#### PUMPER & CLEANER 2009

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

Louisville, Kentucky, USA

Feb. 25th - 28th, 2009

Booth #3031

### MARCH 2009



#### SUBSEA TIEBACK FORUM 2009

<http://stf09.events.pennnet.com>

San Antonio, Texas, USA

Mar. 3rd - 5th, 2009

Booth #108



#### UNDERWATER INTERVENTION 2009

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

New Orleans, Louisiana, USA

Mar. 3rd - 5th, 2009

Booth #803



#### OFFSHORE MEDITERRANEAN CONFERENCE 2009

[www.omc.it/2009](http://www.omc.it/2009)

Ravenna, Italy

Mar. 25th - 27th, 2009

Booth #N17



#### OCEAN BUSINESS 2009

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

Southampton, UK

Mar. 31st - Apr. 2nd, 2009

Booth #N6

### APRIL 2009



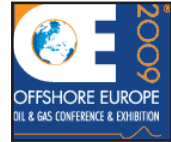
#### AUVSI AMERICAS 2009

<http://symposium.auvsi.org>

Washington, DC, USA

Apr. 10th - 13th, 2009

Booth #T.B.A



#### OFFSHORE EUROPE 2009

[www.offshore-europe.co.uk](http://www.offshore-europe.co.uk)

Aberdeen, Scotland, UK

Sep. 8th - 11th, 2009

Booth #668



#### UUVS 2009

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

Southampton, UK

Sep. 22nd - 23rd, 2009

Booth #T.B.A

### MAY 2009



#### OTC 2009

[www.otcnet.org/2009](http://www.otcnet.org/2009)

Houston, Texas, USA

May. 4th - 7th, 2009

Booth #4153

### JUNE 2009



#### UDT EUROPE 2009

[www.udt-europe.com](http://www.udt-europe.com)

Cannes, France

Jun. 9th - 11th, 2009

Booth #216



#### ENERGY OCEAN 2009

[www.energyocean.com/2009](http://www.energyocean.com/2009)

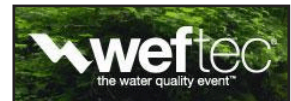
Rockport, Maine, USA

Jun. 16th - 18th, 2009

Booth #605

### SEPTEMBER 2009

### OCTOBER 2009



#### WEFTEC 2009

[www.weftec.org](http://www.weftec.org)

Orlando, Florida, USA

Oct. 11th - 14th, 2009

Booth #2322



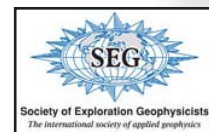
#### OCEANS 2009

[www.oceans09mtsieeebiloxi.org](http://www.oceans09mtsieeebiloxi.org)

Biloxi, Mississippi, USA

Oct. 26th - 29th, 2009

Booth #541



#### SEG 2009

[www.seg.org](http://www.seg.org)

Houston, Texas, USA

Oct. 25th - 30th, 2009

Booth #T.B.A