

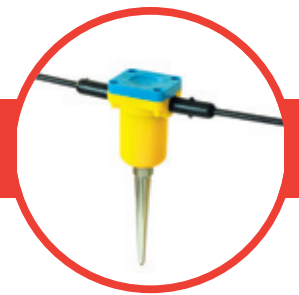
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ION PRODUCTS

Geophone Parts and Spares



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ion

[CHARGED WITH INNOVATION]™

Parts and Spares

ION's Sensor subsidiary is the leading designer and manufacturer of precision geophones used in seismic data acquisition and for industrial use. Sensor has access to the vast wealth of knowledge acquired and developed by the ION group of companies. This valuable asset base, coupled with Sensor's own specialized skills and knowledge, provides unmatched diversity of technologies and innovation.



Since 1967 ION Sensor has been providing geophysicists worldwide with exceptional quality, precision geophones, testers and ancillary equipment. Our geophones, cables, cases, connectors and geophones strings are designed to work flawlessly in every conceivable environment on earth; from the frozen tundra of the world's polar regions to the searing heat of the hottest deserts, and everywhere in between.

As market leader and an ISO 9001: 2000 certified company, Sensor maintains production facilities and service support in The Netherlands, USA, Dubai, India, Canada, China, Russia and the UK. From our main plant in Voorschoten, The Netherlands and from our Dubai facility, we produce a geophone every four seconds, well over two million a year.

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"Sensor has access to the vast wealth of knowledge acquired and developed by the ION group of companies"



Land Cases

Like all Sensor equipment, our land cases are designed to operate reliably in the harshest environments on the planet.

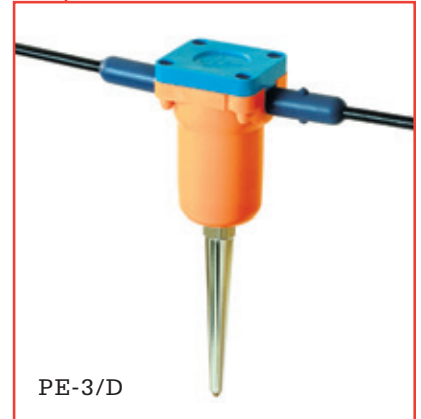
PE-3 series cases are fully water tight with stress relief components designed with breaking strength equal to that of our tough cable. The four screw closure system allows easy internal access for geophone or string maintenance in the field.

Single and dual entry gasket options allow for flexible string configuration.

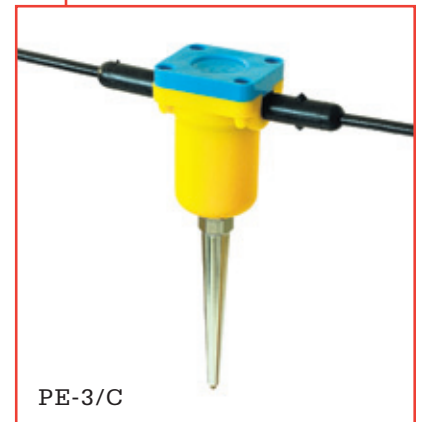
PE-3/D - New all-weather land case with PCB connection for easy field repairs and maintenance.

PE-3/C land case – Economical, field proven reliability for more than 20 years.

HPE Horizontal Land Case with leveling bubble and tough aluminum dual spike mounting point.



PE-3/D



PE-3/C



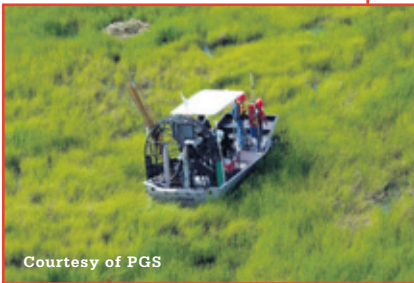
HPE



Courtesy of PGS

“Like all Sensor equipment, our land cases are designed to operate reliably in the harshest environments on the planet.”

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Marsh Cases

The Sensor Marsh series of geophone cases are ideally suited to any situation where the seismic line encounters water; in-line pull strength in excess of 100 kg insures that you will get them back at the end of the day.

Water blocked and tested for extended periods at 50 m water depth, our marsh cases are suitable for housing a wide variety of Sensor geophones.

MC-1M Fully water blocked molded marsh case - Over molded cable entry point creates a watertight seal. Tough engineering polymer construction makes this case suitable for use in the harshest environments. Taper design allows for easy deployment and snag free recovery.

MC-1R Repairable marsh case - Field repairable version of the MC-1M. Fast and simple cable changes through the use of the re-sealable water tight compression nut and gland.

AE-8 Impact resistant aluminum marsh case - Canadian Arctic winter proven machined aluminum case for use in cold weather applications. Can accommodate a wide range of Sensor geophone models.





Three Component Cases

PE-6 Series three component cases utilize PCB cable termination and are available in both conventional and 'Spike' versions.

PE-6/B case – Field proven, robust, low profile 3C waterproof case. Single or dual entry available. Accommodates a wide range of Sensor geophones. Selection of base fittings for optimum coupling.

PE-6/S case – 'The Spike' is the most compact waterproof 3C package in the industry. Cable termination by a PCB provides quick and reliable cable interface and fast, easy field maintenance.

PE-6/S AL Aluminum base version of the PE-6/S 3-C case. This rugged case is designed for maximum performance and durability, in even the most extreme of conditions. PE-6/S AL houses a wide range of sensor geophones for maximum 3-C analogue flexibility.



Parts and Spares

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Snow Bases

Plastic and aluminum snow bases for improved surface coupling



Pick -up loops

Molded poly loops, steel and brass pick-up loops



Tripods and Spikes

Tripod bases available in brass and steel.

Brass and steel spikes are available in 60, 75, 90 and 150 mm lengths



Carrying Hasp

Carrying Hasps –Available in 48 cm, 80 cm and 58 cm heavy duty.



Embossed ID tags

Custom numbered aluminum tags for easy string identification.



Geophone cables

2 Conductor Non-Water Blocked

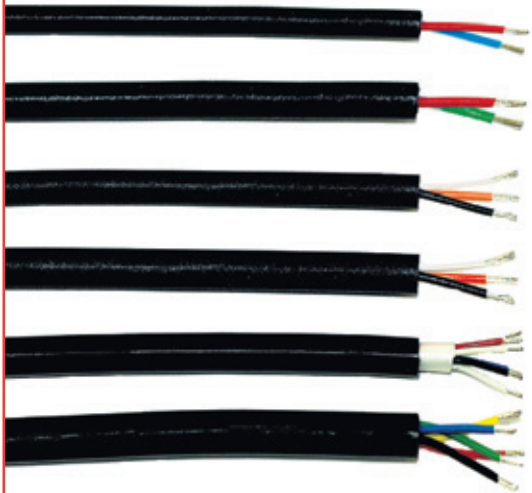
2 Conductor Water Blocked

3 Conductor Non-Water Blocked

3 Conductor Water Blocked

6 Conductor Non-Water Blocked

6 Conductor Water Blocked



Parts and Spares

String Parts

Y – Mold

Standard protection and insulation for wide and narrow clip termination.



Standard molded tee

– High tensile strength tee for use in all environments.
Pressure tested to 50m for extended periods.



Fully water blocked molded tee –

Over molded protective shield ensures water tight seal. The uniquely designed internal PCB prevents electrical leakage even in the event of water entry due to migration resulting from cable damage.

PE-9/C Cable junction case –

Field serviceable watertight splice for 2, 3, or 4 cables. Cable anchoring break strength approaches that of the cable.



PE-7 – Allows any number of paralleled strings to be connected to the main spread while presenting only one set of clips to the take-out.



Parts and Spares

Connectors

HC-4P connector - A four contact hermaphroditic field repairable connector that is fully compatible with the Herma IV. Available in 4.57, 5.33, 6.35 mm cable entry versions. Water tight standard gold plated connections.



HGS-IV connector - Gold plated contacts for reduced corrosion and minimal contact resistance, fully compatible with Amphib IV connector. Accommodates 4.57, 5.33, 6.35 mm cable sizes and is suitable for use in most environmental conditions from -15°C to +70°. Rugged construction utilizing impact resistant polymers.



MP-16 connector – Rugged land parallel connector. Easy conversion for Arctic use to -50°C. Parallel geophone strings possible. Male onboard take out version available.

Connectors

The **5515 and 5517 series of connectors** are ideal for marsh or transition zone seismic operations and are available as single male and female connectors, as well as a back to back paralleling version. The 5517 connector is available in both push on or screw-on options.

5515 male push on connector



The 5515 and 5517 connectors are available on customer specified lead in lengths on .180" .210" or .250", dry or water blocked cables. Molded or steel pick up loop options are also available.

The 5517 connector array consists of a 5515 male connector and a 5517 female onboard takeout. These connectors can be installed at customer specified intervals.

+ 5515 female onboard take out



5517 screw on connector array



= 5517 push on connector array



5515 back to back connector





Netherlands

SENSOR Nederland b.v.
Rouwkooplaan 8
2251 AP Voorschoten
The Netherlands
Phone: +31 (0)71 5601234
Fax: +31 (0)71 5617145

UK

Leiden House, Delft Way
Norwich International Business Park
Norwich, Norfolk NR6 6BB England
Phone: +44 (0) 1603 481000
Fax: +44 (0) 1603 411403

Dubai

ION Dubai UAE
Oilfields Supply Center Ltd B-23
Jebel Ali Free Zone
PO Box 18627, Dubai,
United Arab Emirates
Phone: +971 4 883 3362
Fax: +971 4 883 3067

USA

12300 Parc Crest Drive
Stafford, TX 77477
USA
Phone: + 1 281 933 3339
Fax: + 1 281 879 3626

China

First Shanghai Center Suite 302
39 Liang Ma Qiao Road
Beijing 100016, PR China
Phone: +86 10 8453 4350
Fax: +86 10 8453 4351

Canada

2905, 500 - 4th Avenue SW
Calgary, Alberta T2P 2V6
Phone: + 1 403 213 8769
Fax: + 1 403 263 9132

Russia

ION Moscow Russia
Busines center "Navigator"
Varshavskoye Sh. 47/4
Moscow, Russia 115230
Phone: +7 495 981 4601
Fax: +7 495 981 4606