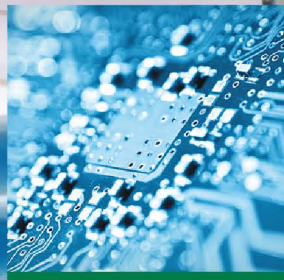
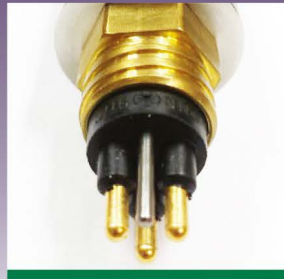




ESI Technology Ltd

Oil | Gas | Subsea Pressure Transducers and Transmitters



Oil & Gas

Pressure measurement plays an important role in the oil & gas industry.

With the necessity to find oil in less accessible places, the systems utilised in exploration become more complex and the use of pressure transducers and transmitters is increasing.

New and more challenging applications require specifically designed solutions to cope with higher static pressures, aggressive processes and environmental conditions. Based on extensive experience in supplying transducers and transmitters for the oil & gas industry, ESI Technology offers field proven solutions.

One of our particular areas of expertise is in deep-water subsea applications where we provide specialist transmitters, often for control valve operation and for immersion up to 6,000 metres with an expected service life of 25 years.

- Subsea
- Offshore
- Drilling
- Exploration
- Down-hole
- Wellheads
- Topside
- Downstream



Standards

Our customers expect high performance from their ESI product. Achieving this requires flawless execution across the entire supply chain. From design and sourcing quality components through to shipment, our quality control and inspection procedures ensure that each and every unit that leaves our premises conforms to the highest standards. We operate to a Quality Management System approved to ISO 9001:2008 and ISO/IEC 80079-34:2011. We also conform to aerospace and military standards.



Ex Certification

ESI has an extensive range of intrinsically safe transmitters, all ATEX and IECEx approved for explosion protection for flammable gases (zone 0), dusts (zone 20) and mining areas (group I MI).

Technical Marking:



II I G Ex ia IICT4 Ga
II I D Ex ia IICT135°C Da
I M I Ex ia I Ma



SOS Technology

Unbeatable performance, high accuracy, excellent chemical compatibility

Silicon-on-Sapphire sensor technology has redefined the performance capability of ESI products.

The outstanding elastic properties of the sapphire substrate provide the perfect platform on which to create a pressure sensor with no measurable hysteresis and superb repeatability.

The measurement sensitive element consists of a silicon piezoresistive strain gauge microcircuit. The single crystal silicon forms a strong molecular bond to a sapphire substrate which is joined to a robust titanium alloy pressure diaphragm through a high temperature diffusion process. The excellent insulation properties of the sapphire allow the sensor to operate over a very wide temperature range without loss of performance.

Combined with all titanium wetted parts, this sensor offers unbeatable performance with high over pressures and excellent chemical compatibility.

SOS Technology features extensively throughout the ESI portfolio.



Customer Service

Our objective is to create close working partnerships with our customers. Our dedicated sales team strive to understand your application by closely listening to your requirements in order to advise you promptly and accurately on the ideal solution.



Global

A significant proportion of our sales are exports, so it is imperative that we have clear communication channels with the rest of the world. The development and extension of our sales network shows a thriving enterprise and we now have more than 45 sales partners across 41 countries.

The custom design service from ESI

Whatever your application may be, there are times when your requirements aren't so straight forward and you need a tailor made pressure measurement solution to your unique specifications.

Subsea, oil and gas applications have become a speciality of ESI. Our ability to meet specialist requirements can be illustrated by our product range. In addition to our standard range of instruments our team of qualified engineers, with extensive experience in electronic, software and mechanical instrumentation offer a complete design service using the latest technologies. Working closely with the customers engineering teams, ESI are able to create unique solutions meeting all of the specifications required.

Sensor technology, pressure port threads, output signals, pressure ranges, electrical connections and wetted parts can be adapted to customer requirements and integrated into housings suitable for extreme conditions. Stringent quality control and inspection is exercised at every stage of the manufacturing process to ensure our customers complete satisfaction with the end product, backed up with technical advice and support. We maintain customer focus and high quality regardless of whether your project is small, mid or high volume.

If you have an application headache and a standard instrument just won't do, please talk to our sales team about how we can design and build an engineered pressure measurement solution for you.

From Conception to Completion.....



ESI Technology Ltd

Product Range

Our Oil, Gas and Subsea Portfolio.....

Protran PR3913

Control Valve Pressure Transmitter

- Silicon-on-Sapphire sensor technology for outstanding performance
- Submersion to 3,000 mtrs sea level
- Pressure ranges available to 1,000 bar
- High accuracy option
- Hyperbaric testing to 3,300 m depth
- Environmental Stress Screening (ESS Testing)
- Suitable for ROV and deep sea test equipment
- Comprehensive documentation package and certification
- ATEX/IECEX option available (includes M1 for mining applications)



Protran PR3914

Subsea Pressure Transmitter

- Suitable for ROV and deep sea test equipment
- Silicon-on-Sapphire sensor technology for outstanding performance
- Submersion to 6,000 mtrs depth
- Pressure ranges available to 2,000 bar
- High accuracy option
- Optional temperature output
- Hyperbaric testing and Environmental Stress Screening (ESS Testing)



Protran PR3915

Subsea Pressure Transmitter

- Two pressure sensors and electronics for reliable dual redundancy
- Silicon-on-Sapphire sensor technology for outstanding performance
- Submersion to 3000 mtrs sea level
- Pressure ranges available to 1,000 bar
- High accuracy option
- Hyperbaric testing to 3,300m depth
- Environmental Stress Screening (ESS Testing)



Genspec GS4200

General Purpose Pressure Transmitter

- Silicon-on-Sapphire sensor technology for outstanding performance
- Pressure ranges to 1,500 bar
- Unblemished track record of reliability
- Excellent corrosion resistance
- High strength titanium pressure port
- High resistance to overpressure and pressure transients
- ATEX/IECEX option available (includes M1 for mining applications)
- DNV GL certification available



GenSpec® DYNAMIC

GD4200-USB

USB Powered Digital Pressure Transducer

- Sample rate software selection up to 1,000 hz
- Choice of pressure ranges from vacuum to 5,000 bar
- Accuracy (nlhr) ±0.15% of span bfsl
- Auto detect and configuration
- USB 2.0 compatible
- ESI-USB® downloadable software with auto update
- Measure & record up to 16 pressure inputs together
- Create customised test certificates
- Automatic temperature compensation
- Support for easy integration with applications created by C#, VB, Labview and Excel VBA (api dll library)
- 2m lead & carry case included



Hispec HI2000 Series

High Precision Pressure Transducer

- High accuracy and performance
- Silicon-on-Sapphire sensor technology for outstanding stability
- Pressure ranges to 1,500 bar
- Titanium wetted parts for excellent chemical compatibility
- High thermal stability over wide operating temperature
- ATEX/IECEX option available (includes M1 for mining applications)
- TEDS Version available



To view our complete portfolio please visit www.esi-tec.com

Protran PR3920

Subsea Differential Pressure Transmitter

- Silicon-on-Sapphire sensor technology for outstanding performance
- Standard sensing range 0-50 bar DP
- 690bar line pressure
- 1200bar secondary containment
- Submersion to 3,000 mtrs sea level
- High accuracy option
- NACE corrosion resistance
- ATEX/IECEx option available (includes M1 for mining applications)



Protran PR3900

Hazardous Area Pressure Transmitter

- ATEX and IECEx certified
- Designed for operation in zone 0, zone 20 and M1 mining
- Wide choice of pressure ranges from 0-10 bar to 0-1,500 bar
- NACE corrosion resistant materials
- Rugged, weatherproof design
- DNV GL certification available



Protran PR9000

Heavy Duty Pressure Transmitter

- Silicon-on-Sapphire sensor technology for outstanding performance and reliability
- Pressure ranges up to 1,500 bar
- All stainless steel, robust construction for harsh environments
- Wetted parts in various materials
- ATEX/IECEx option available, including M1 for mining applications



Hispec HI2200/2300 Series

High Temperature Transmitter

- High operating and ambient temperatures of up to 200 °C
- Pressure ranges to 1,500 bar
- High accuracy
- Temperature compensated option
- Good chemical compatibility for a range of applications
- A range of electrical and process connections available



Hipres© HP1000 Series

High Pressure Transmitter

- Pressure ranges to 5,000 bar
- High pressure integrity for safe use due to unique sensor design
- Pressure diaphragm and process connection is machined from one piece of Titanium with no seals or welds
- High resistance to overpressure and pressure transients
- Silicon-on-Sapphire (SOS) sensor technology for outstanding performance and reliability
- ATEX/IECEx option available (includes M1 for mining applications)



Protran PR3441

Submersible Depth/Level Pressure Transmitter

- Piezoresistive sensor technology for excellent stability and repeatability
- Robust stainless steel construction
- Pressure ranges available from 0-1 mWG
- Strength, moulded cable for protection against ingress
- ATEX/IECEx option available (includes M1 for mining applications)
- DNV GL certification available





Product Conditioning

Pre-conditioning and testing is fundamental to the success of our oil, gas and subsea range.

Our investment in hyperbaric test facilities means that each and every unit we supply has already been subjected to 3,300 metres of submersion before leaving the factory and the customer can rest assured that there is no concern about leakage or integrity when deploying these pressure transmitters in deepwater subsea applications.

Investment in vibration test equipment and automated thermal chambers means that transmitters can be environmentally screened at ESI before shipment, confirming that the units are fit and reliable for a long service life on the seabed. This is a major benefit to the customer as the cost of valve retrieval from subsea for example is extreme.

This investment and commitment means that every customer receives a material requirement package with each transmitter confirming calibration, accuracy, material conformity, hyperbaric test and ESS test certificates.

Documentation Support

The provision of documentation to support products is usually beyond the scope of most quality systems, but we have adapted our procedures to offer full and comprehensive document support including certificates of conformity, calibration certificates and material certificates for traceability. Document packages have become a standard requirement in the competitive oil and gas market and ESI are ready to support any new requirements that arise. We will continue to listen to customers and research and develop new solutions.

About us

Since our establishment in the 1980's, ESI Technology Ltd has been at the heart of the pressure measurement industry, specialising in the design and manufacture of pressure transducers and pressure transmitters.

Our focus has been on specialist applications using state-of-the-art sensing technologies including the innovative **Silicon-on-Sapphire strain gauge**. Due to our expertise in such a niche field, the team are able to analyse and interpret customer specific requirements and create a product that meets, and more often than not exceeds, the exact needs of the application in order to eradicate any compromise from the customer.

Our portfolio boasts solutions for applications:

- Oil & Gas
- Subsea
- Marine
- Aerospace
- Defence
- Hydraulics
- Depth & Level
- Hazardous Area
- Automotive
- Process & Industrial
- Clean Rooms
- Test Calibration
- OEM Markets

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