PIPELINE
PRE-COMMISSIONING
PRODUCTS & SERVICES

WWW.ONLINE-ELECTRONICS.COM
WWW.IK-UK.COM
Online Electronics (OEL) was formed in 1996, and acquired by the IK-Group in 2015, OEL provides a wide range of locating equipment for the whole pipeline industry, from construction, through operational life to de-commissioning. It’s sister group IK-UK was formed in 2010 and acquired and renamed by IK Group in 2013. IK-UK designs, manufactures and tests pipeline pigs and isolation tools globally for the Oil & Gas Industry. IK-NORWAY is a niche supplier of solutions, products and services focusing on worldwide pipeline industry service pre-commissioning and pipeline operations.

With over 20 years experience, OEL is the technological market leader in pig tracking and pig detection. Using acoustic, electromagnetic, magnetic and ultrasonic technologies combined with electronics expertise, OEL can meet the demands of any given application.

IK-UK provide an integrated pigging solution by combining a full range of pre-commissioning pigs along with tracking and locating devices. Pigs can be fitted with magnets to remove ferrous debris from the inside of the pipeline or to operate magnetic non-intrusive signallers. The majority of IK-UK pigs can be designed to house Online Electronics tracking devices.

Working directly with the client and using the latest CAD-CAM systems and production methods, IK-UK together with Online Electronics (OEL) can meet any pre-commissioning pigging requirements asked of them, no matter how big or small.
BI DIRECTIONAL PIGS

Bi Directional pigs are designed to be used for the displacement of water or air during pipeline operations. The standard model is supplied with six polyurethane discs; two support/guide discs which assist loading and centralisation in the pipeline and four sealing discs which drive, seal and scrape.

BRUSH PIGS

Brush pigs are designed to remove debris and deposits from the pipeline. There are a variety of brush materials which offer excellent cleaning properties to suit all pipeline materials, and by-pass ports allow removed debris to be flushed clear of the discs and brushes.

GAUGING PIGS

Gauging pigs are vital to the pre-commissioning process. These are designed to prove the pipeline is laid as specified. When combined with an OEL SMART GRID® system, the approximate position of a defect in the pipeline can be established.

SMART GAUGING PIGS

When gauging pipelines to a subsea receiver, it can be costly to verify the condition of the gauge plate prior to the hydrotest. The Smart gauge system enables the ROV or diver to determine whether the gauge plate is in a PASS or FAIL condition and communicates the time of the first 'event' in the case of 'FAIL condition'. Smart gauge is simple to add to routine gauge pigs and can save un-necessary vessel work as it evidences the condition of the pipeline without the need to recover the subsea receiving head.
GRID (GAUGING RUN INTEGRITY DATA)

GRID system allows the presence and position of defects along a pipeline to be identified. There is no need to recover the pig to visually inspect the gauge plate and there is the option to detect and log multiple defects.

Features and benefits:
- Events are logged by the GRID transducer and can be downloaded to a laptop
- Pingers can be configured to extend battery life
- Data can be transmitted over long distances
- Pressure switch activation available

ACOUSTIC

Our acoustic pinger and receiver systems enable quick and accurate detection of a stalled pipeline pig from a support vessel, resulting in significant savings in vessel, equipment and personnel costs.

600, 800, 1200

OEL's Pingers come in various sizes with stainless steel bodies. The pingers are of high specification and are used for subsea marking and location operations. Pingers have a saltwater activation, therefore can be left in the launcher and will activate when the saltwater contacts are exposed to any conducting fluid.

Features and benefits:
- Capability of sending acoustic transmissions up to 2km
- Multiple frequencies which allow for easy pinger differentiation
- The pingers have multiple use, and can be used as a ROV beacon, within a pig and as an acoustic alarm
- The pingers have a battery life from 6-300 days and can operate in temperatures of -2c to +54c
- Ping rates, acoustic power and pulse lengths can be altered to extend battery life allowing for specific project requirements to be met
ELECTROMAGNETIC

OEL can provide a wide range of ATEX certified EM Transmitters designed to work in potentially explosive environments in the oil and gas industry such as FPSOs, oil platforms, refineries and other locations where equipment must be protected from creating ignition or explosion.

ELECTROMAGNETIC RECEIVER

OEL’s versatile EMRx range of robust, multifrequency receivers are used for locating lost or stalled pigs and tracking pigs fitted with electromagnetic transmitters and can be used topside or subsea in depths up to 3000m. The enhanced sensitivity permits the location of transmitters even within very heavy walled launchers/receivers, pipeline bundles or Pipe-in-Pipe.

The EMRx may be interfaced via RS485 or Bluetooth with software which allows a number of different frequencies between 10Hz and 30Hz to be displayed. Additionally, all receiver parameters such as the colour coded LED frequencies on the unit can be configured.

ELECTROMAGNETIC TRANSMITTER

The electromagnetic transmitter is an advanced and versatile system. It can be fitted to pigs and used in any onshore or offshore pipeline including buried pipelines, pipelines carrying gas or liquid and in pipeline bundles. The transmitters can be customised as required to achieve the optimum balance between signal strength and battery life.

Features and benefits:

- Range of units to suit all line sizes
- The transmitter can be adapted to become the pig body by fitting pig flanges
- Battery life can be conserved with the addition of a pressure switch or magnetic endcap, allowing pigs to be loaded months in advance
- USB Endcap allows the transmitter parameters such as pulse rate, pulse width and power output to be modified by the user, without the need to return the unit
- Can be configured at site if required with dedicated software now available to end users
- Fully ATEX Certified, allowing it to be used in hazardous areas.

The EM transmitter and receiver system enables quick and accurate locating of a stuck pipeline pig in a topside or subsea pipeline and with any pipeline medium.
Signallers confirm successful launch and receipt of magnetic pigs and pig passage confirmation at strategic points along the pipeline. Non-intrusive signallers can be installed quickly and easily to the pipeline. All signallers provide local indication of pig passage via a graphical display and high brightness LEDs.

4001D MAGSIG®

The 4001D MAGSIG® is suitable for pipelines of any size. It is both ATEX and IECEx certified. The 4001D MAGSIG® quickly and accurately detects, signals and logs the passage of magnetic pigs at critical points along a pipeline, both onshore and offshore.

4000SD SUBSEA

The 4000SD non-intrusive signaller is a compact, self-contained, magnetic pig signaller which is suitable for harsh subsea applications and has an operating depth of 3,000m.

Features and benefits of all signallers:

- Up to 99 logged events
- Graphical display and high brightness LED
- Events can be viewed locally and reviewed later
- Single control button and intuitive menu system
- Quick and easy set up
- Versatile
- Time and cost savings
Datalogging & testing equipment records and communicates data remotely at various stages of the pipeline recommissioning process in order to free up the support vessel to perform other tasks during subsea hydrotests.

**6000SD**

The compact and self-contained unit can log temperature and pressure during subsea hydrotest. This can be deployed during the hydrotest to monitor, display and record pressure and temperature data at set intervals.

Features and benefits:
- Logs and displays readings from internal digital pressure and temperature sensors to ensure acceptable hydrotest results are achieved
- Can be deployed and operated by ROV or diver
- High visibility OLED display
- Minimal connections and cabling
- Proof of successful hydrotest prior to recovery

**MEG ARTS®**

MEG ARTS® is a system with a proven track record in providing highly reliable information on the composition of MEG and other chemicals received subsea during pipeline conditioning operations. It is specifically designed for pre-commissioning of pipelines where lines require chemical conditioning in preparation for transportation of gas.

Features and benefits:
- Automatic sampling eliminates need for vessel at, or transit to, receipt location resulting in vessel costs savings
- Optional directed sampling by ROV in one location
- Pipeline Conditioning assured through
- Real time data, logged data and physical sampling
- Removal of industry reliance on theoretical calculations
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