

 Emirates
DuSense

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Active Load Brochure

Load Cells



Sensing Safety for the Middle East



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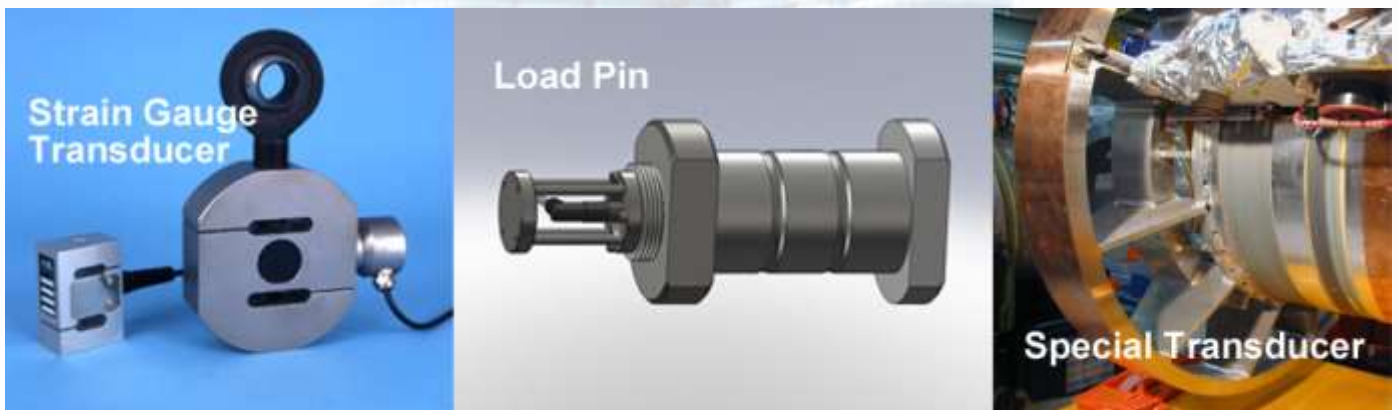


Load Measuring Shackles

DuSense is Middle-East Agent by Active Load to provide complete transducer solution designing and manufacturing strain gauge transducers.

Strain gauge transducers are designed to be Load Cells, Force Sensors, Torque Sensors, Pressure Transducers and any other strain related product.

Active Load will incorporate the strain gauge cells with a strain gauge amplifier to achieve an enhanced signal. Many of our strain gauge load cells are designed to be in the form of load monitoring pins to measure rope tension. Other forms taken are as load monitoring links and compressive load cell.



APPLICATIONS



Active Load has experience of strain gauge transducer applications in many industries. Having hands of experience in many of the harsh marine and construction industries we fully understand the importance of having the correct product for the application.

We understand that the strain gauge transducer, such as load pins have to be designed to meet the specification required but also complement the assembly that it is fit within.



Lifting—Overload protection and load monitoring are typical applications within our field of expertise.

Utilising either an under hook weighing equipment such as load measuring shackles, load monitoring or a pulley block system using load monitoring pins or clamp-on transducers, together with monitoring instrumentation a complete integrated solution can be provided.

Load monitoring pins can be incorporated into the structure of a unit to ensure a secure and robust system. Clamp-on transducers can be utilised on the hoisting cable for overload protection. We can customise the solution to meet the application for both safety and weighing.

In all cases telemetry systems can be supplied for signal transmission to a remote control centre if required.

- Crane Safety
- On-Hook Weighing
- Load Monitoring Shackle

Gantry overhead cranes require overload protection and weighing facility. Active Load can supply the strain gauge load cells and interface instrumentation. On-hook weighing is very often required for many lifting applications. Active load can supply many type of strain gauge transducers to solve problem. Many of these application require telemetry and base station systems which are able to help with.



Marine

There are many marine measurements applications that Active Load have helped with.

Many of them have been applied to measuring the tension in a rope or a chain and have been achieved via either chain stopper, load shackle on the dead end of the rope or with a running line tensiometer.

Force monitoring on sub sea ploughs has been provided utilising custom designed submersible load pins with integral signal amplifiers.

Mooring forces measured by the installation of our load pins in the mooring hooks or from a running line tensiometer.

We have marine solution for you. Sub sea or surface.

- Mooring Load Monitoring
- Anchor Winch Applications
- Crane Safety
- Anchor Load Monitoring
- Telemetry Systems
- The deploying of drilling rigs are both critical and difficult and require careful monitoring. We are able to supply the critical load measuring load cells for measuring the loads in the towing lines.
- Dockside cranes require both safety systems as well as weighing facility. We are able to supply the strain gauge load cells for both the safety system and the precision weighing application.

Oil and Gas

Applications

There are many structural forces at play in an Oil and Gas installation, too numerous to mention here. Some of the more common applications that we have undertaken include:

- **Winch Load**—Monitored from the base of the winch or through the cabular pulley wheel to ensure that any over tolerance loads are monitored and alarmed. We can supply compression load cells or load pins to suit every application.
- **Heave Compensation**—Drill String Tension is constantly measured to ensure that fatigue and force evaluation are monitored and controlled in this intrinsically safe area.
- **Moorings and Load Buoys**—When floating structures are used by tankers we provide measurement of mooring lines and anchor lines using a strain gauged load monitoring pin.
- **Anchor Load**—If the offshore structure is temporary or mobile then anchor points will be used to secure its position. The forces on these require to be measured. We provide load pins or running line tensionmeter measurements for this application.
- **Crane Load**—We provide load-measuring transducers to measure load forces on the crane structure and if telemetry applications are required we can provide the remote signalling, displays and alarms.
- **Pipe and Cable Laying ship** required strain gauged load pins applied to the pipe support rollers.





Construction Applications

The onset of recent legislation has highlighted the requirement to incorporate load monitoring equipment in cargo carrying vehicles.

Active Load has provided numerous systems including:

- Sensors for on board weighing in road going transport.
- Weight sensors for front end loading vehicles.
- Sensors and instrumentation for lorry mounted cranes.
- Sensors and instrumentation for logging companies in commercial forestry applications.
- Certain process industries require specific batches of raw materials to be loaded or transported at set intervals and we have provided complete systems to achieve this. This is incorporated with radio signals to call specific vehicles to nominated locations to collect or deliver designated loads.
- Further enhancements include stock control interfacing and where appropriate “in-cab” touch screen systems.