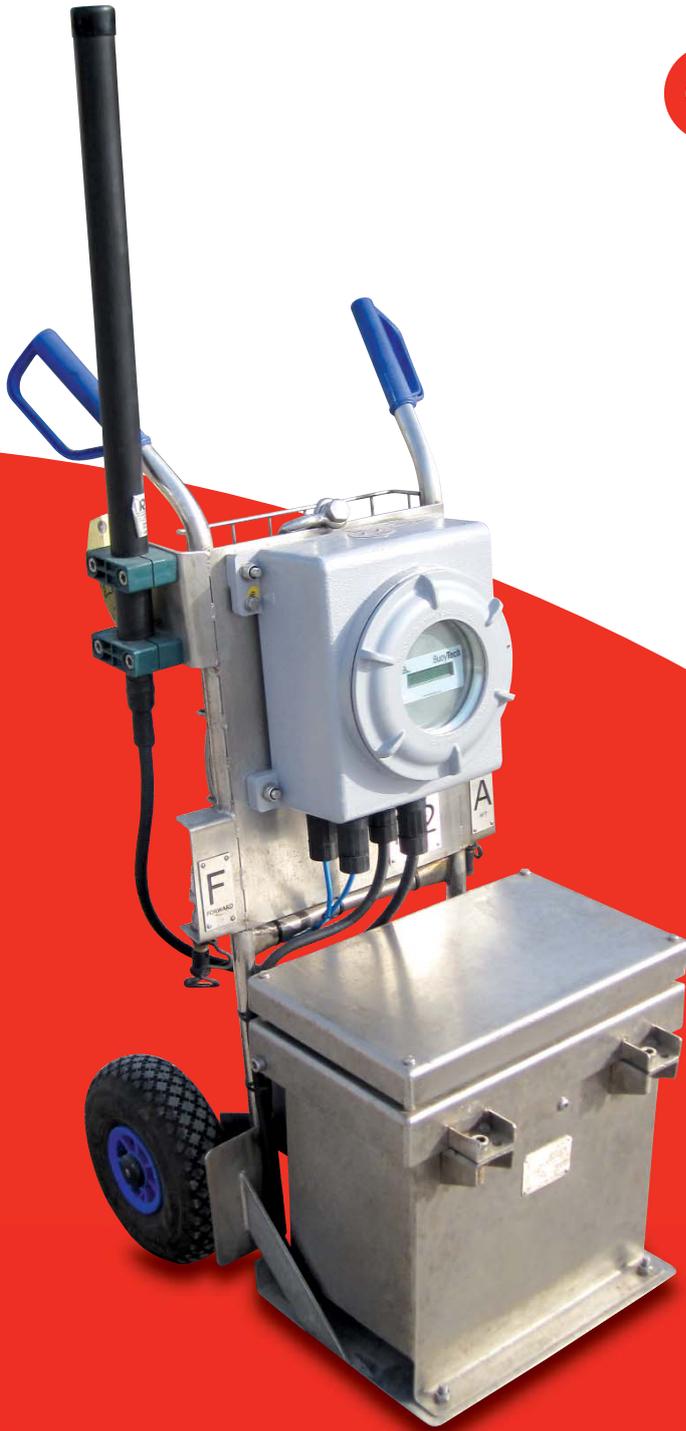


oiltech 



# OILTECH Surge Protector

TANKER LOADING TECHNOLOGY SYSTEMS



## Surge Protector

Unexpected pressure surges during moored buoy loading operations can pose a significant risk to crew, the environment and loading hoses and pipelines. The Surge Protector from single point mooring technology company, OILTECH, is designed to protect export terminal hoses, pipeline and buoy from the effects of pressure surges.



Until now, surge protection has either been monitored on board the single point moored (SPM) buoy, or even worse at the shore pumping station. By the time the Surge event is detected and the shore pump's stopped, it's often too late to prevent damage to subsea hoses and pipeline. The OILTECH Surge Protector (patent pending) offers a smarter and more sensitive way of detecting and automatically responding to pressure surges.

The OILTECH Surge Protector comprises a portable, self-contained Manifold Pressure Monitoring System (MPMS) deployed to the tanker, and linked remotely via VHF / UHF, to a terminal-based control station connected to the pumping station. Attached to the tanker hose's camlocks, the pressure sensor unit monitors hose pressure, continuously sending pressure data to the control station.

If the hose line pressure increases above a pre-set threshold, this is detected by the control station, which automatically shuts down the terminal transfer pumps.

As the OILTECH Surge Protector is portable and deployed at the ship's manifold, the unit is ideally suited for use at CBM or MBM systems as well as at SPM terminals to provide a higher degree of safety for all loading operations.



### **OILTECH Surge Protection system offers:**

- Fast response - detection of overpressure to shutdown - less than 2 seconds
- Pressure monitoring at the hose manifolds provides a wider dynamic range and fast detection
- Encrypted data transmission telemetry via VHF / UHF radio depending on local conditions for continuous pressure monitoring and ESD (Emergency Shut Down) initiation
- Standalone MPMS unit or can be readily integrated into buoy monitoring system.

## Manifold Pressure Monitoring System features include:

- Self contained, robust portable unit with lifting point, designed and built for Zone 1 hazardous area operation
- No electrical connections required - powered by rechargeable batteries (safe area) with capacity for 36+ hours operation
- Local display of pressures, battery level, alarms and communication status
- Fluid filled flexible hoses as the pressure transfer medium ensures highly sensitive response to pressure changes
- Dual pressure sensors - either redundant on one hose or dual hose - other configurations available on request
- Retrofittable to existing hose camlocks to fit different hose sizes
- Non spill quick connect stainless steel fittings
- Integrated hose storage.

## Shore-based control station features include:

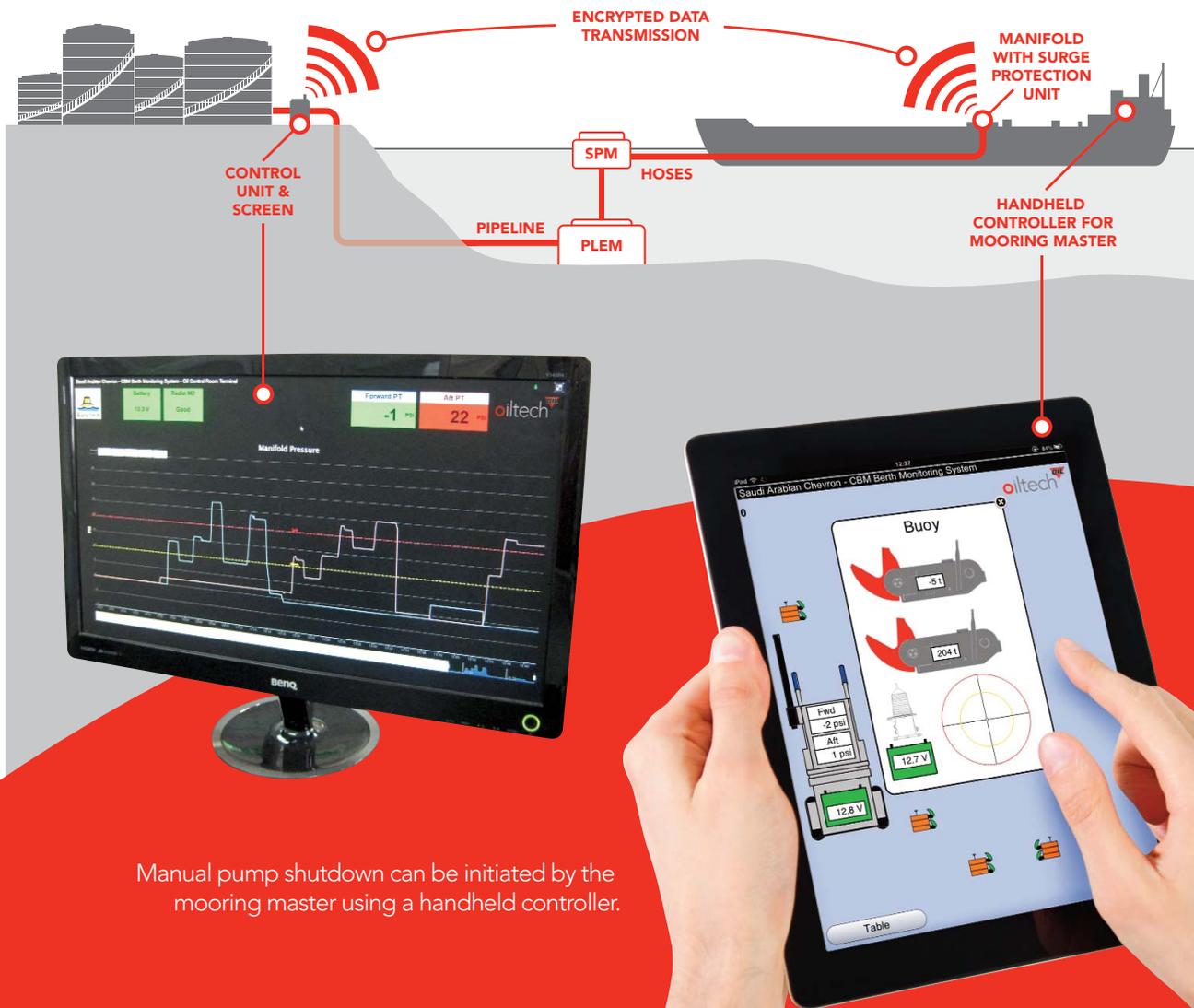
- Wall mounted receiver / relay unit with local display of pressures, alarms and communication status
- Changeover volt-free relay contacts for warning and shutdown to plant control system
- USB port for data logging to pen drive
- Network / serial connection for monitoring / display using web page screen format showing trending, XML, and Modbus
- Manual pump shutdown can also be initiated by the mooring master using a handheld controller.

With increasing concerns over the environmental impact of oil terminals, the OILTECH Surge Protector is a powerful tool enabling terminal operators to operate safe and reliable loading systems.

## The Surge Protector offers terminal operators:

- Rapid response, loading pressure surge protection system
- Avoids potential damage to hoses, buoy, pipeline end manifold (PLEM) and pipeline arising from equipment faults and human error
- Prevents disruption to loading operations as hoses are repaired / replaced and recertified.

For more information on the OILTECH Surge Protector call **+44 (0)1384 453880** or email **info@oil-tech.co.uk**



Manual pump shutdown can be initiated by the mooring master using a handheld controller.



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