

Metso smart technology
Intelligence for
offshore applications



Extreme
durability and
functionality
for extreme
conditions





Extreme ruggedness for extreme conditions

Smooth-operating, automated process valves play an important role on offshore platforms, as in many other process plants. However, there are still some factors that make the working environment on offshore platforms very different from that in onshore plants. For example, process valves on platforms are often difficult to access and the on-site delivery of spare parts is more challenging than when operating onshore.

Traditionally, process valves on offshore platforms have been controlled by either solenoid valves or by positioners, depending on the application and also on local decisions and procedures at the different platforms. The offshore environment also creates its own demands on the enclosures of these devices, the optimum material to be used being usually stainless steel.

Nowadays intelligent valve controllers are also available with stainless steel enclosures. Metso stainless steel valve controller offering includes Neles ND9300 intelligent valve controllers for control valves, Neles SwitchGuard intelligent on-off valve controllers for demanding on-off applications, Neles Axiom on-off valve controllers for standard on-off applications and Neles ValvGuard intelligent safety solenoids and partial stroke testing devices for safety valves. This way the whole network of automated valves on platforms can be controlled by intelligent valve controllers, thereby creating many new opportunities – for example, in the field of condition monitoring and predictive diagnostics. By means of intelligent valve controllers and predictive diagnostics, condition monitoring and maintenance planning can also be performed remotely from an onshore location.

Neles ND9300

Neles ND9300, with its stainless steel construction for corrosive environments, is part of the the field-proven ND9000 intelligent valve controller family. It is an ideal solution when top class performance,

comprehensive diagnostics and resistance to tough environmental conditions are required. ND9300 operates on every valve, on all field buses and integrates smoothly into all major control systems.

It enables financial savings during all life cycle phases of the valve from engineering and commissioning to operations and maintenance.

Neles ValvGuard™

Neles ValvGuard™ VG9300, stainless steel version of the new safety solenoid and partial stroke test device for emergency shutdown and venting valves, is the latest addition to Metso's successful range of valve controllers. VG9300 is available both for HART and FOUNDATION fieldbus environments.

VG9300 is providing increased safety in the most cost-effective way:

- Simple to install and use
- Suitable for single- and double-acting actuators and rotary and linear valves
- Provides extensive safety valve testing capabilities
- Market leading large pneumatics capacity eliminates the need for external instrumentation components
- Optional internal limit switches



Process upsets eliminated

- Detecting performance degrading with online diagnostics before it affects the process
- Enhanced field device availability due to predictive maintenance and reliable product design

Optimum process performance

- Automatic tuning of control performance with ND9300
- Advanced control algorithm of ND9300 maintains valve performance in changing conditions

Low life cycle costs

- Predictive tooling enables the shutdown work list to be planned in advance
- Unnecessary maintenance work is eliminated
- Longer maintenance cycle due to enhanced product reliability



Simple to install

- The same units can be used for all actuators – small and large, single- and double-acting, and for both rotary and linear valves
- Mounting kit designs are available for over 800 3rd party actuators and for all Neles actuators

Neles SwitchGuard™

Neles SwitchGuard™ SG9300 is the stainless steel version of Metso's innovative intelligent on-off valve controller. Its unique diagnostic features enable remote condition monitoring and predictive maintenance also with on-off valves.

SG9300 is especially designed for process critical and high-cycling on-off applications:

- Simple to install and use
- Suitable for single- and double-acting actuators and rotary and linear valves
- Speed control with the possibility to set different opening and closing valve stroke profiles
- Exact valve opening and closing times
- High pneumatics capacity eliminating the need for additional pneumatic accessories and simplifying the installation.
- Optional internal limit switches

Neles Axiom AX

The stainless steel version of the explosion proof Neles Axiom AX is an optimum solution for standard on-off applications. Axiom is a discrete on-off valve controller that combines a solenoid valve and proximity switches into one integrated package.

The advanced position sensing system of Axiom offers reliable long-life performance with convenient push-button settings. The internal pneumatic valve has high tolerance to dirty air and it enables perfect operation in demanding off-shore environment.

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