

NETWORK CONTROL FOR VALVE ACTUATORS

Intelligent supervisory control and monitoring for valve actuators and plant equipment



Reliable and comprehensive data communications are essential elements in the modern process plant. Plant managers today demand access to more information, more quickly than ever before. Process operators must have the ability for full control at all times, 24 hours a day, 365 days of the year. Maintenance managers need the information required for efficient asset management.

To meet these requirements, design engineers incorporate field communication networks to enable critical plant equipment to be controlled and monitored by a Distributed Control System (DCS). The DCS often controls multiple systems that are assigned to management, operational and maintenance tasks, exchanging data about the equipment and process under their control.

To assist the DCS and relieve it of some of its workload, sites often use a master station. A master station provides the essential link between field devices and the site DCS or Programmable Logic Controller (PLC).

The latest generation of Rotork's innovative system controls and monitors valve actuators and plant equipment.

The Rotork *Master Station* can control up to 240 actuators across three separate field networks to allow the optimum network to be used in specific plant areas. As well as being suitable for use in all industries, the Rotork *Master Station* now supports Modbus® RTU protocol with third party device integration and Pakscan™ Classic,

Rotork's own standard two-wire loop system, which has more than 170,000 existing devices installed in networks around the world.

It provides a high integrity link between the Distributed Control System and field devices, enabling the control and monitoring of devices including mixers, pumps and transmitters, as well as valves and actuators, through the third-party device connection mechanism.

A large intuitive touch screen user interface and web pages include the same menu structure to provide quick device set up, interrogation and issue resolution. All configuration can be fully carried out using the touch screen or web interface meaning no additional software is required.

The Rotork *Master Station* includes many other features to enable efficient management of plant assets connected to a network. Multiple host connectivity is included and multiple databases allow the Rotork *Master Station* to maximise the efficiency of data transfer, enhancing asset management and predictive maintenance capabilities.

The Rotork *Master Station* is available with built-in redundancy support

through a hot standby configuration. This function allows a replica unit to assume control of the network in the event of an error in the primary unit. All network communications are also secured with fault tolerance, allowing for plant operation to continue even if a fault occurs.

Through continuously monitoring itself, field networks and field device alarms, the Rotork *Master Station* is able to alert operators to the exact nature of a fault, should one occur.

Installation is low cost and simple through the use of a single twisted pair cable instead of expensive multicore cabling. Each wired control loop can operate on lengths up to 20 km without using external repeaters, further reducing labour, installation and commissioning costs. All wiring is easy to access from the front panels and either 19-inch rack or panel mounting options are available with the Rotork *Master Station*.

For further information please contact

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