

Quantum®

Design Features

Addressing the increasing demand for low power monitoring and control of automated process valves, the Westlock Quantum LP® integrates position sensors, low energy solenoid valves, and fugitive emissions monitors into a single unit meeting the specific standards set by international approval agencies.



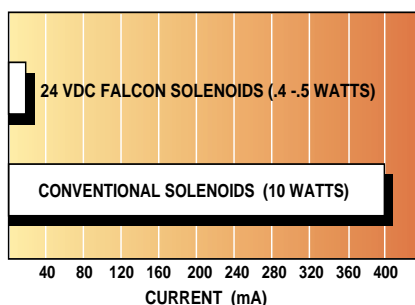
Engineered and certified to meet NEMA 4, 4x and hazardous location requirements in Division 1 and 2 areas, the Quantum LP® elevates the integration of sensors and controls to a new level.

Low Power Control and Position Monitoring

The Westlock Falcon™ Series of solenoid valves is specifically engineered to address low power valve actuation requirements. When interfaced with computer-based process control systems requiring

low power energy supplies, the utilization of Falcon™ solenoids translates into immediate economic benefits. Required power levels for actuation control are efficiently reduced to 5% of the energy required for operation of conventional valves. Integrated within the Quantum housing and capable of operating in any position, Falcon™ solenoids are available in General Purpose, Division 2 (nonincendive) and Division 1 & 2 (explosionproof & intrinsically safe) configurations. Both 3-way for single acting and 4-way for double acting actuators carry standard Cv ratings of .3, .5, 1.2 and 3.5.

A wide range of sensors are available for monitoring valve position. Mechanical switches are the least expensive and possess SPDT and DPDT capability. Magnum® sensors, hermetically sealed against the intrusion of explosive gases and liquids, provide maximum resistance against moisture and corrosion. Solid state sensors are internationally approved for intrinsically safe applications as are both Magnum® and mechanical sensors under their classification as "simple apparatus" If required, a complete range of resistive and current transmitters provide full range monitoring of valve position.



Required power levels for actuation control are efficiently reduced to 5% of the energy required for operation of conventional valves.

LOW POWER MONITORING AND CONTROL OF AUTOMATED PROCESS VALVES

General Purpose
NEMA 4, 4x

Nonincendive
NEMA 4, 4x
Class I, Div. 2, Grps. A, B, C & D,
Class II, Div. 2, Grps. F & G

Explosionproof
NEMA 4, 4x, 7, 9
Class I, Grps. B, C & D
Class II, Grps. E, F & G, Div. 1 & 2

Intrinsically Safe
NEMA 4, 4x
Class I, Grps. A, B, C & D,
Class II, Grps. E, F & G, Div. 1 & 2



Quantum® Enclosures

Specifically Engineered To Meet All Areas and Groups

The Quantum LP's unique design assures ease of maintenance by allowing rapid coil replacement and enhances safety by isolating the coil from operating personnel. The Quantum enclosure integrates position sensors, low power solenoid valves, and fugitive emissions monitors into a single unit meeting the specific standards set by international approval agencies.

Engineered and certified to meet NEMA 4, 4x and hazardous location requirements in Division 1 and 2 areas, enclosures are available in high impact engineered resin, aluminum, or stainless steel having the capability to operate within all harsh environments



General Purpose/ Nonincendive/I.S.

Aluminum/Engineered Resin

Area Classification: NEMA 4, 4x
Class I, Groups A, B, C, & D
Class II, Groups E, F & G
Division 1 and 2

Conduit Entries: Up to two 3/4" NPT

Terminal Block: Up to 16 contacts



Dual Coil General Purpose/ Nonincendive/I.S.

Aluminum/Engineered Resin

Area Classification: NEMA 4, 4x
Class I, Groups A, B, C, & D
Class II, Groups E, F & G
Division 1 and 2

Conduit Entries: Up to three 3/4" NPT

Terminal Block: Up to 16 contacts



Explosionproof

Aluminum/Stainless Steel

Area Classification:

NEMA 4, 4X, 7, 9

Class I, Groups B, C & D

Class II, Groups E, F, & G

Division 1 and 2

Coating: Double Polyurethane

Conduit Entries: Up to three 3/4" NPT

Terminal Block: Up to 16 contacts



Dual Coil Explosionproof

Aluminum

Area Classification:

NEMA 4, 4X, 7, 9

Class I, Groups C & D

Class II, Groups E, F, & G

Division 1 and 2

Coating: Double Polyurethane

Conduit Entries: Up to three 3/4" NPT

Terminal Block: Up to 16 contacts