

DIGITAL INTERFACE VALVE WITH ATEX CERTIFICATION

Offering reliability and advantages of digital controls



Companies that need products with ATEX Certification face many challenges including the need for the highest safety, reduced downtime in 24/7 operations and expert technical support. Moog's newest explosion-proof offering is a range of digital valves with advanced parameter setting, condition monitoring and remote diagnostic capabilities. Available in a full range of sizes with both pressure and flow control versions, this family of products is certified to ATEX II 2G Ex d e IIC TX Gb, temperature classes T3 up to T6.

Moog has extensive experience in designing and manufacturing products for demanding environments and first introduced certified valves for use in explosive environments in 1972. As the leader in valves with digital technology since 2000, Moog is able to offer ATEX valves with the safety, reliability and advanced technology needed by industries with explosive environments. Advanced digital technology with parameter setting, condition monitoring and remote diagnostics enables you to maximize uptime in your operations.

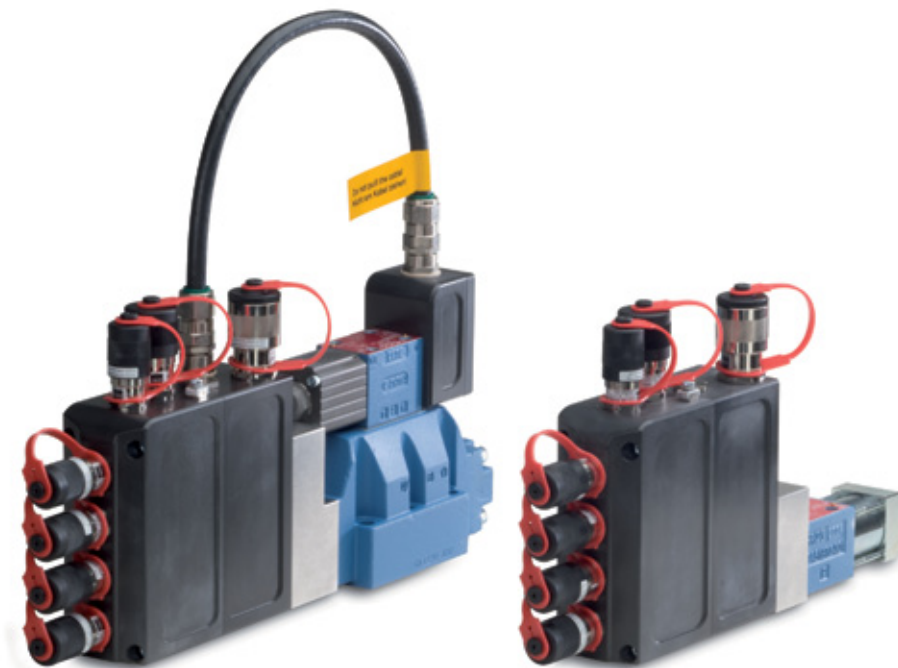
To reduce downtime due to installation and maintenance, Moog incorporates a unique feature in the ATEX Digital Interface Valve Series called hot pluggable connector capability which enables you to connect and disconnect the valve with the electrical supply switched on.

FEATURES AND BENEFITS

- Flexibility: Since control parameters may be downloaded using the fieldbus or a high level PLC program, the valve control function can be tuned during the machine operating cycle
- Increased uptime: Integrated continuous monitoring of a range of important valve and system functions and remote diagnostics
- Fieldbus data transfer: With an electrically isolated fieldbus interface, valve parameters can be changed on site or remotely
- Easier maintenance: Hot pluggable connectors can be mated and unmated while powered, reducing downtime during maintenance
- Easy to use interface: Save time with software engineered for usability

APPLICATIONS

- Oil and gas exploration
- Gas turbines
- Power generation
- Wood processing
- Presses
- Maritime equipment
- Chemical processing



SPECIFICATIONS

Digital electronics

Control electronics are completely integrated within the ATEX Valve, incorporating a microprocessor-based system for executing all key functions via embedded software. This offers flexibility for the valve to adapt to a wide range of operating conditions, while maintaining high accuracy and repeatability. In particular, it enables highly optimized system performance even with significant variations in pressure and temperature.

Fieldbus interfaces

The built-in fieldbus interface (e.g. CANopen®, Profibus-DP® or EtherCAT®) enables adjustment of operating parameters, controlling the valve and monitoring of performance. In a safe private or virtually private network you can communicate directly with the valve from anywhere in the world.

This valve is also available in a version without a fieldbus interface that is controlled using analog inputs and includes a service connector for setting parameters.

Axis control

In addition, the ATEX Valve family of products includes the Axis Control Valve (ACV) which controls the position, velocity or force of the actuator in the external system. The control mode can be changed during the machines cycle as commanded by external inputs.

Moog's team of application engineers can assist you with any additional information you may require for your application.

TECHNICAL DATA

| Model | Valve function | Size according to ISO 4401 | Maximum flow | Rated flow |
|-------------------------------|-------------------|----------------------------|-------------------------|---|
| Direct operated valves | | | | |
| D636K | Flow | 03 | 75 l/min (19.8 gpm) | 5/10/20/40 l/min (1.3/2.6/5.3/10.6 gpm) |
| D638K | Flow and pressure | | | |
| D637K | Flow | 05 | 180 l/min (47.6 gpm) | 60/100/160 l/min (15.9/26.4/42.3 gpm) |
| D639K | Flow and pressure | | | |
| Pilot operated valves | | | | |
| D671K | Flow | 05 | 180 l/min (47.6 gpm) | 30/60/80/2 x 80 l/min (7.9/15.9/21.1/2 x 21.1 gpm) |
| D941K | Flow and pressure | | | |
| D672K | Flow | 07 | 600 l/min (158.5 gpm) | 150/250 l/min (39.6/66.0 gpm) |
| D942K | Flow and pressure | | | |
| D673K | Flow | 08 | 1,500 l/min (396.3 gpm) | 350 l/min (92.4 gpm) |
| D943K | Flow and pressure | | | |
| D674K | Flow | 08 | 1,500 l/min (396.3 gpm) | 550 l/min (145.3 gpm) |
| D944K | Flow and pressure | | | |
| D675K | Flow | 10 | 3,600 l/min (951 gpm) | 1,000/1,500 l/min (264.2/396.3 gpm) |

- Rated flow depends on option selected either at Δp_N 35 bar/spool land (500 psi/spool land) or at Δp_N 5 bar/spool land (75 psi/spool land)
- Maximum operating pressure 350 bar (5,000 psi)
- Temperature range -20 (-40 °C on request) to +60 °C (-4 (-40 °F on request) to +140 °F) ambient temperature, -20 (-40 °C on request) to +80 °C (-4 (-40 °F on request) to +176 °F) depending on certified temperature class according to ATEX
- Hydraulic function: 2-way, 3-way, 4-way, 5-way and 2x2-way versions
- Valve Configuration Software is provided as part of this product package
- For more information refer to the appropriate catalogs

Moog has offices around the world. For more information or the office nearest you, contact us online.

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www.moog.com/industrial

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This technical data is based on current available information and is subject to change at any time. Specifications for specific systems or applications may vary.

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