

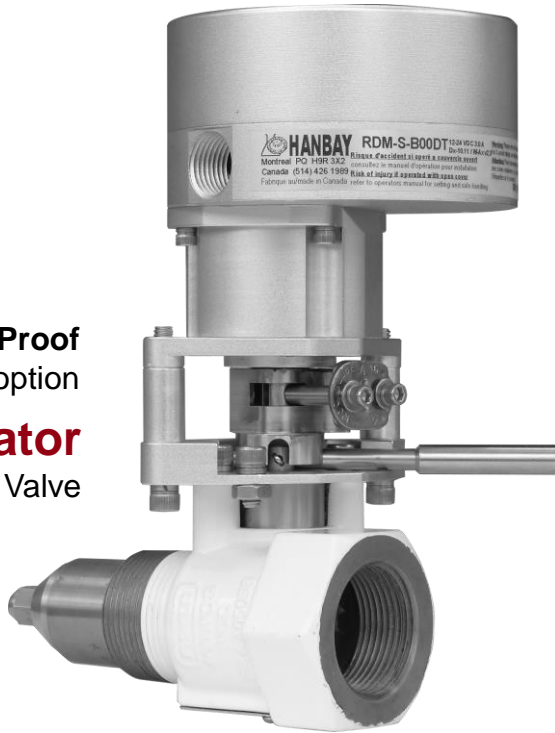
Valve Automation in Hazardous Locations



RCM Actuator
Needle Valve

Explosion-Proof
Fail-Safe option

RDM Actuator
Internal Valve



Linear Acting &
Submersible

LCM Actuator
Pressure Regulator



RCM Actuator
Ball Valve

Fits any small valve

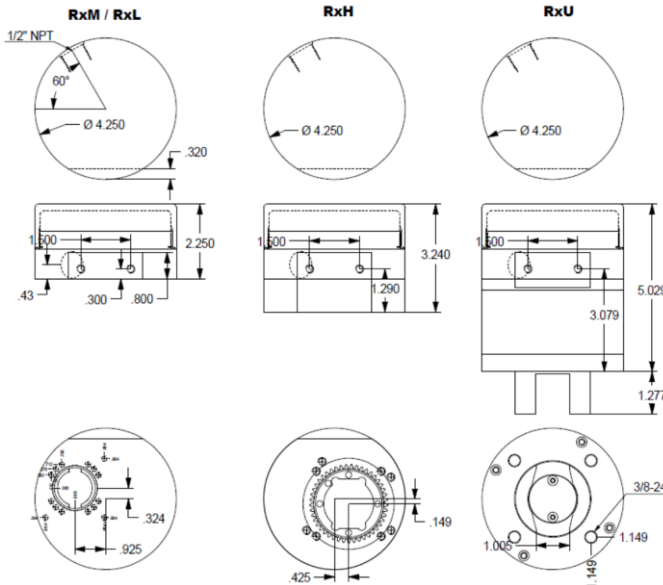
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|----------|---------|---------------|
| Needle | Gate | Globe |
| Metering | Globe | Butterfly |
| Ball | Bellows | High-Pressure |

There isn't a valve that we can't automate

HAZLOC
CSA / UL rated
Class I, Div 1, Group B, C, D
Class II, Group E, F, G



Main Dimensions



General Description:

Type Rxx electric / electronic actuator are used to precisely position small valves and devices

Gears: Rxx actuators use sintered, greased for life metal gearing only

Housing: all housing parts are aluminum die cast and are protected by an electrophoresis paint

Bearings: oiled for life porous bronze bearings

External Fasteners: Stainless Steel

Manual Override: optional, mounted directly on the output shaft

Rxx actuators offer a full range of control options:

- Multiturn Analog, Partial Turn Analog
- ¼ - ½ turn TTL

External Gear Stages: Metal Gears for additional reduction:

- RxH 3.75 additional gear ratio
- RxU 15 additional gear ratio

General Specifications:

Enclosure:	NEMA 6 / IP67 IP68 40PSI / 40 deg cel
Enclosure Rex Model:	Class I, Div 1 Groups B, C, D / T6 Class II Groups E, F, G / T6 (85 deg cel.)
Temperature range:	0 .. 70 deg Cel (derate duty cycle at high temp.)
Extended temp. range:	-40 .. 85 deg Cel [w. Heater option on cold side]
Finish:	Anodized white, Stainless
Stall protection:	by electronic position and motion detection
Feedback:	TTL, 4.20mA
Life Expectance:	250,000 cycles or equivalent under specified conditions
Motor:	BLDC brushless DC motor.
Voltages:	12-24 VDC
Stall protection:	by electronic position and motion detection
Positioning precision:	+/- 3 deg for 1/4 – ½ turn models +/- 0.25 deg for multi turn
Positioning resolution:	+/- 0.15 deg max. adjusting to electronic signal resolution of 12 bit additional signal filters available
Range setting:	dip switches inside enclosure
Speed setting:	dip switches inside enclosure
End of travel detection:	for needle valve closing, by motion detection
Power setting:	adjustable to protect delicate needle valves on closing operation
Position detection:	Hall detectors
Motor control:	Electronic, full computer control
Mechanical shock:	1 m drop test no damage to function Random SAE J1211, Chassis, Exterior
Mechanical vibration:	Random SAE J1211, Chassis, Exterior
Thermal Shock:	-20 deg cel to + 70 deg cel 10 min

Performance: Rxx Multi-turn models:

Model	Torque Range [in-lbs]	Speed range [time for 1 turn]
RCJ	2 .. 20	1 .. 5 sec
RCL	18.. 60	1 .. 5 sec
RCM	44 .. 132	3 .. 9 sec
RCH	88.5 .. 400	15.. 60 sec

Performance: Rxx ¼ and ½ turn models:

Model	Torque Range [in-lbs]	Speed range [time for ¼ turn]
RDM	44 .. 132	0.75 .. 2.5 sec
RDH	88.5.. 400	3 .. 9 sec
RDU	110 .. 1200	11 .. 38 sec

Note: the speed and torque depend on the settings by dip switch of the actuator, selectable by user. Consult user manuals of individual units.

* De-rate the duty cycle to 25% for the highest torque values

Other Specifications Multi-turn Models:

Isolated Signals: [AI and AF models only]	optical isolation 1000V min.
Feedback 4..20mA: [AF model only]	for sensing resistor of max. 250 ohms. Floats +6VDC / -2VDC from power Gnd
Position on power loss:	- Standard, "remembers" the position it was in before shut n down. - will reset the valve based on torque setting when the signal is between 3 and 4 mA

Other Specifications ¼ and ½ turn Models:

TTL Signals in:	internal pull up, <1mA required to pull down
TTL signals out (Feedback):	will drive max 2.5mA