

# HANBAY

Electric Actuators

# LINEAR VALVE ACTUATORS

Valve and process automation since 2004

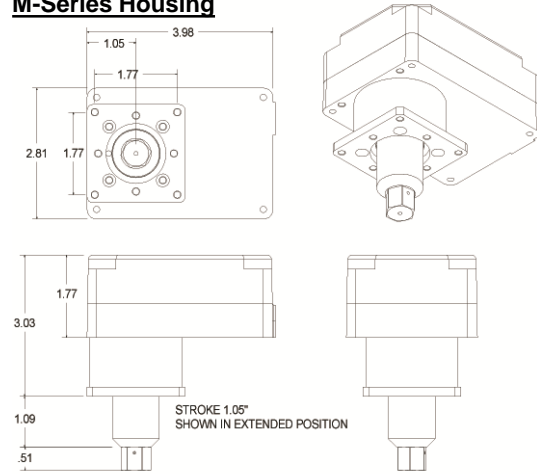


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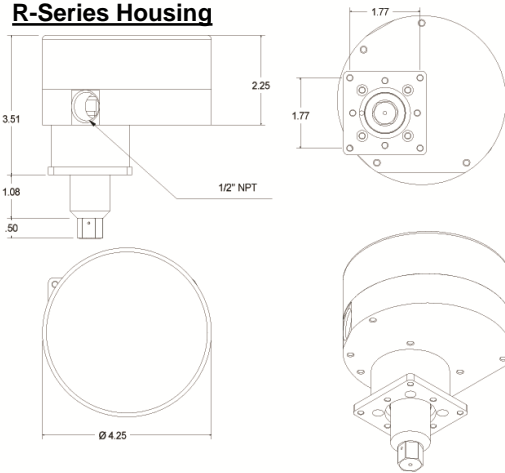
**CSA/UL**

Class I, Div I,  
Group B, C, D

## M-Series Housing



## R-Series Housing



## General Description:

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

**Gears:** Mxx 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

## General Specifications:

<b>Enclosure:</b>	NEMA 4 / IP56
<b>Temperature range:</b>	0 .. 70 deg Cel (de-rate duty cycle at high temp.)
<b>Extended temperature range:</b>	-40 .. 70 deg Cel [ w. Heater option]
<b>Finish:</b>	E-coating, Stainless
<b>Stall protection:</b>	By electronic position and motion detection
<b>Feedback:</b>	M-Series: 4.20mA, RS485 R-Series: TTL, 4.20mA
<b>Life Expectance:</b>	250,000 cycles or equivalent under specified conditions
<b>Motor:</b>	BLDC brushless DC motor.
<b>Voltages:</b>	12-24 VDC
<b>Stall protection:</b>	By electronic position and motion detection
<b>Positioning precision:</b>	Up to +/- 0.001" (0.0025mm)
<b>Range setting:</b>	Dip switches inside enclosure
<b>Speed setting:</b>	Dip switches inside enclosure
<b>End of travel detection:</b>	For needle valve closing, by motion detection
<b>Power setting:</b>	Adjustable to protect delicate needle valves on closing operation
<b>Position detection:</b>	Hall detectors
<b>Motor control:</b>	Electronic, full computer control
<b>Mechanical shock:</b>	1 m drop test no damage to function Random SAE J1211, Chassis, Exterior
<b>Mechanical vibration:</b>	Random SAE J1211, Chassis, Exterior
<b>Thermal Shock:</b>	-20 deg cel to + 70 deg cel 10 min

Linear Models	Force Range [in-lbs]	Speed range [time for 1 inch]
LCJ - 8	27 .. 170	8 .. 40 sec
LCL - 8	80 .. 510	8 .. 40 sec
LCM - 8	250 .. 1550	32 .. 128 sec
LCL - 16	120 .. 740	16 .. 80 sec
LCM - 16	350 .. 1460	64 .. 256 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:

**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 down. It will reset the valve based on torque setting when the signal is between 3 & 4 mA