

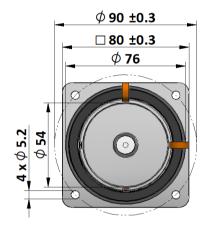
## VMXY80

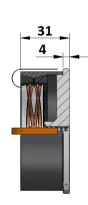
at which the coil attains temperature  $T_{\text{max}}$  with the part mounted to a massive heatsink at  $20^{\circ}\text{C}$  with both coils energised at equal power.

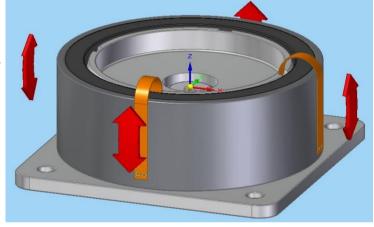
P<sub>100</sub> 10 W T<sub>max</sub> 130 °C Total Mass 800 g
Coil Mass 3 g

Model No.	Resistance R <sub>20</sub>	Inductance	Torque Constant	Deflection Constant	Current I <sub>100</sub>
VMXY80-400-200	2.6 Ω	0.2mH	0.7 N/A	0.7 Vs/m	1172 mA
VMXY80-400-250	3.5 Ω	0.3mH	0.8 N/A	0.8 Vs/m	1010 mA

Max 'ON' time				
100% ED	∞	0.8 N		
50% ED	<b>22</b> s	1.1 N		
25% ED	9 s	1.7 N		
10% ED	<b>3</b> s	2.3 N		







The VMXY80 voice coil actuator provides rotational deflection about 2 axes, and is intended for steering of optical beams.

The moving element is supported on a steel flexure for frictionless movement.

The device has two coil pairs which develop torque about X or Y axis when energised. Torque is proportional to the excitation current, and results in a deflection proportional to the excitation current. The design of the device is scalable - smaller or larger devices with similar construction are possible subject to quantities being economically viable, however it should be noted that the 80mm diameter device is approaching the upper size limit for which radial magnets are available. Larger devices can be realised using segmented magnets, and may be more readily manufactured with square format.