

## AVM Series Voice Coil Motors

- *Direct drive*
- *Zero cogging*
- *Zero backlash voice coil motors*
- *Low coil mass with very fast response and high bandwidth*
- *No contact between coil and core movement (no wear and tear)*
- *Smooth motion at low speeds with limitless resolution (depends on feedback device)*



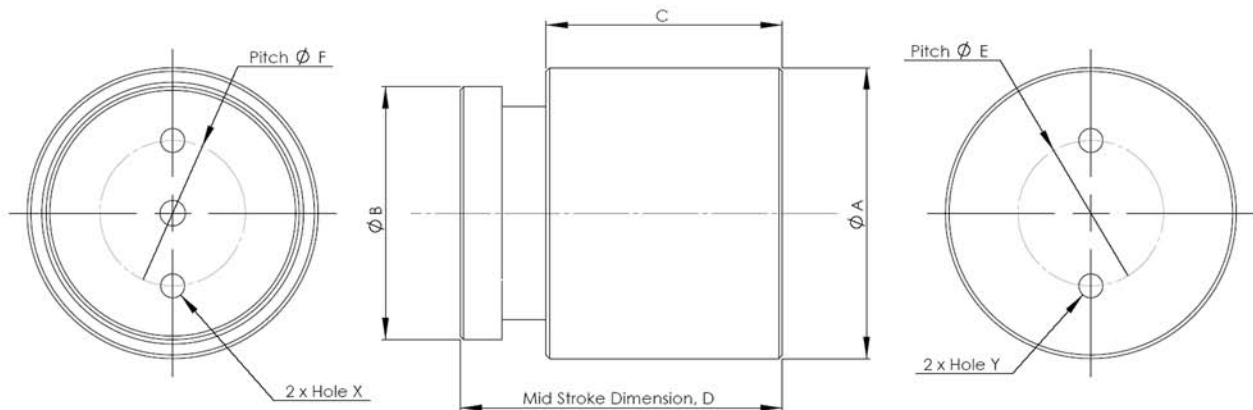
## AVM20 / AVM30 / AVM40 / AVM90 Series

### Datasheet

Specifications	Model	AVM20-10	AVM30-15	AVM40-20	AVM60-25	AVM90-30	AVM90H-10
Stroke, mm		10.0	15.0	20.0	25.0	35.0	10.0
Force constant (at mid stroke), N/A		1.9	7.5	13.1	15.7	19.6	40.2
Back EMF constant, V/ms <sup>-1</sup>		1.9	7.5	13.1	15.7	19.6	40.2
<sup>1</sup> Continuous force (at 100°C), N		1.5	4.7	10.1	24.3	64.7	140.7
<sup>1</sup> Continuous force (at 155°C), N		2.1	6.0	13.4	31.4	84.3	180.9
Peak force, N		6.2	18.0	40.1	94.2	252.8	542.7
Resistance, Ohms		3.5	10.6	11.0	5.2	2.9	3.4
Inductance, mH		0.4	2.9	6.2	6.4	6.6	7.5
Recommended bus voltage, V		24.0	24.0	24.0	24.0	48.0	48.0
<sup>1</sup> Continuous current (coil at 100°C), A		0.8	0.6	0.8	1.6	3.3	3.5
<sup>1</sup> Continuous current (coil at 155°C), A		1.1	0.8	1.0	2.0	4.3	4.5
Peak current, A		2.3	1.9	2.3	4.7	9.9	10.5
Clearance of coil, mm		0.5	0.6	0.6	0.7	0.7	0.7
Power at peak force, W		19.2	37.9	58.7	112.4	284.2	374.9
Maximum coil temperature, °C		155.0					
Coil assembly mass, gm		8.8	24.1	63.3	204.8	757.6	941.6
Core assembly mass, gm		30.3	92.7	205.0	660.0	1750.0	2000.0

<sup>1</sup> Continuous force measured without any additional mounting plate or heat-sink on coil. With additional plate, force will be higher.

## Dimensional Drawing



Dimension, mm	AVM20	AVM30	AVM40	AVM60	AVM90
A	20.0	30.0	40.0	60.0	90.0
B	16.6	25.2	34.8	50.6	81.7
C	19.0	24.5	32.5	43.5	53.0
D	31.0	39.0	49.8	66.1	80.8
E	10.0	16.0	20.0	30.0	48.0
F	10.0	12.6	20.0	30.0	40.0
X	M3	M3	M4	M5	M6
Y	M3	M3	M4	M5	M6

## Part Numbering

Motor size (type)                      Stroke (mm)  
**AVM 20, 30, 40, 60, or 90 - 10, 15, 20, 25, or 30**

**Example : AVM60-30**

## Matching Drivers / Amplifiers

**DDP21, DDP51, ADL41**