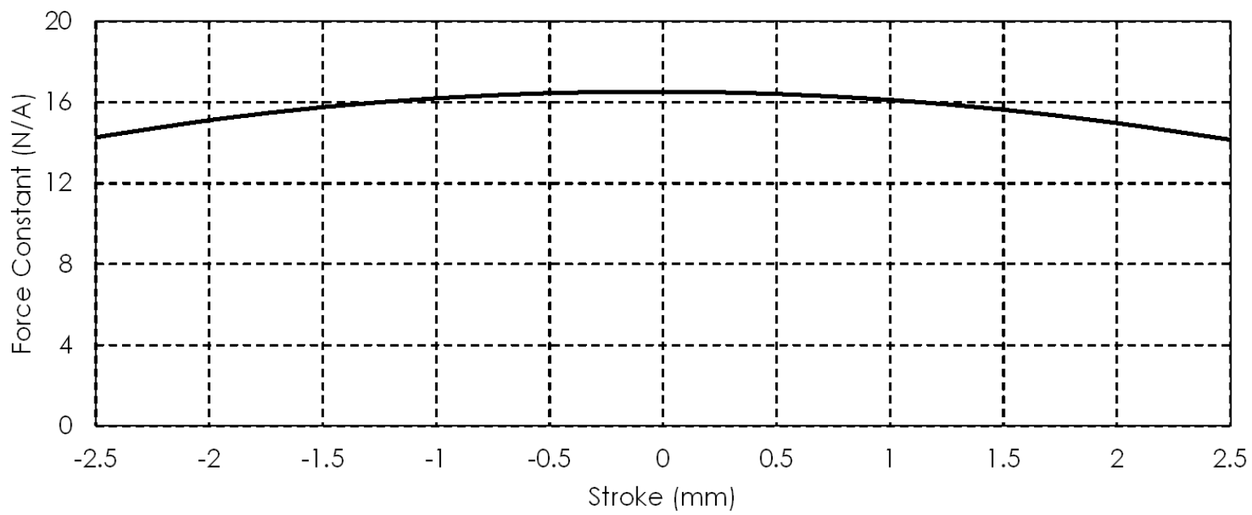
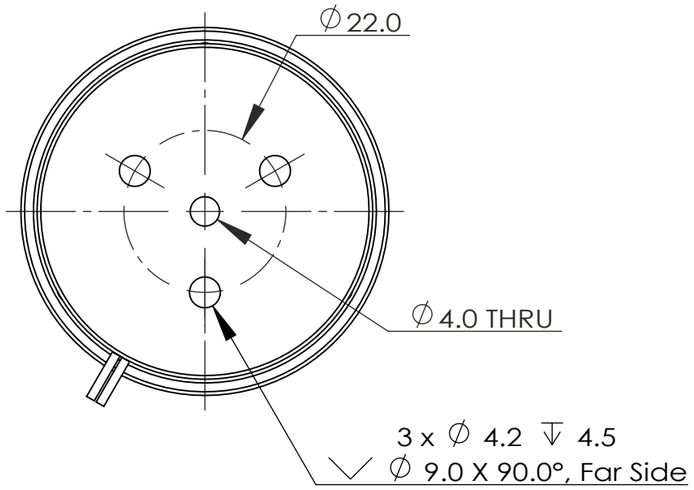
# AVM50-HF-5

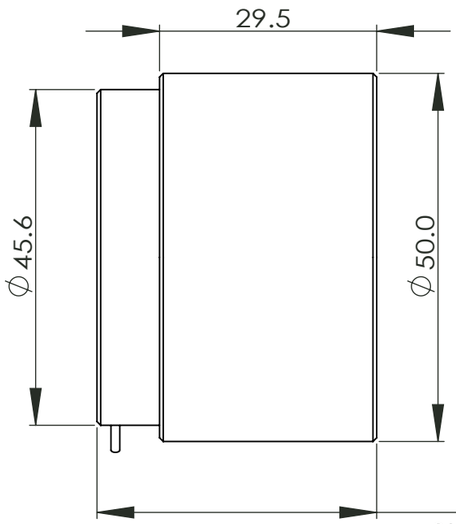
| REV | DESCRIPTION | BY | DATE | APPD |
|---|---|---|---|---|
| 0 | INITIAL RELEASE | SL | 2021/10/26 | YX |
| 1 | The height of the motor and one dimension of the coil update | YF | 2024/08/26 | YX |
| | | | | |

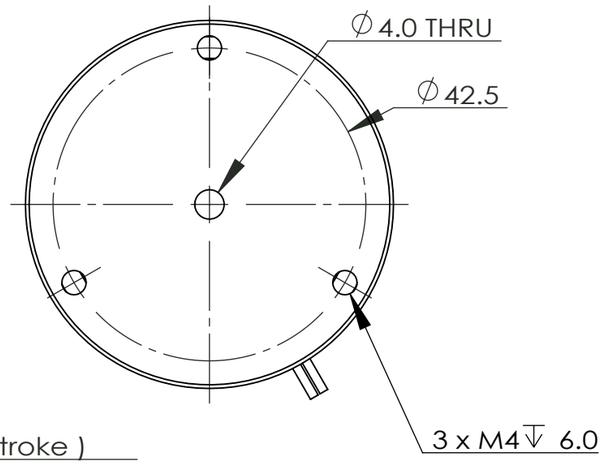
| Performance Parameters | Symbol | Unit | AVM50-HF-5 |
|---|---|---|---|
| Stroke | S | mm | 5.0 |
| Continuous Force @100°C[1] [2] | $F_c$ | N | 23.1 |
| Peak Force[2] | $F_{pk}$ | N | 92.9 |
| Force Constant ±10%[2] | $K_f$ | N/A | 16.5 |
| Back EMF Constant ±10%[2] | $K_e$ | V/(m/s) | 16.5 |
| Motor Constant @25°C[2] | $K_m$ | N/Sqrt(W) | 8.96 |
| Resistance @25°C ±10%[3] | $R_{25}$ | Ω | 3.40 |
| Inductance ±20%[4] | L | mH | 1.35 |
| Electrical Time Constant | $\tau_e$ | ms | 0.40 |
| Continuous Current @100°C[1] | $I_c$ | A | 1.4 |
| Peak Current | $I_{pk}$ | A | 5.6 |
| Continuous Power Dissipation @100°C[1] | $P_c$ | W | 8.6 |
| Max. Coil Temperature | $t_{max}$ | °C | 100 |
| Thermal Dissipation Constant[1] | $K_{th}$ | W/°C | 0.115 |
| Max. Voltage | $U_{max}$ | Vdc | 60 |
| Coil Mass | $m_{coil}$ | g | 82.6 |
| Core Mass | $m_{core}$ | g | 344.6 |
| Running Clearance | $L_{gap}$ | mm | 0.5 |

[1] Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment.
[2] The values are at mid stroke.
[3] Resistance is measured by DC current with 0.5 m lead wire.
[4] Inductance is measured by current frequency of 1 kHz.
*The contents of datasheet are subject to change without prior notice.*

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UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS IN mm

REMOVE ALL SHARP EDGES

GENERAL TOLERANCE
X ± 0.25mm
X.X ± 0.1mm
X.XX ± 0.05mm
X.XXX ± 0.025mm

3rd ANGLE PROJECTION

| | | |
|---|---|---|
| Designed | SL | 2021/10/25 |
| Drawn | SL | 2021/10/25 |
| Checked | YH | 2021/10/26 |
| Approved | YX | 2021/10/26 |
| Material | NA | |
| Surface Treatment | NA | |
| Heat Treatment | NA | |
| Quantity | NA | |

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Model: AVM50-HF-5_Customer Drawing
Title : AVM50-HF-5_Customer Drawing
Dwg No: AVM50-HF-5
Sheet: 1 OF1 Rev: 1