

| Performance Parameters                             | Symbol            | Unit      | AVM40-13 |
|--|-------------------|-----------|----------|
| Stroke   | S                 | mm        | 13.0     |
| Continuous Force @100°C <sup>[1][2]</sup>          | F <sub>c</sub>    | N         | 9.27     |
| Peak Force <sup>[2]</sup>                          | F <sub>pk</sub>   | N         | 54.9     |
| Force Constant ±10% <sup>[2]</sup>                 | K <sub>f</sub>    | N/A       | 12.0     |
| Back EMF Constant ±10% <sup>[2]</sup>              | K <sub>e</sub>    | V/(m/s)   | 12.0     |
| Motor Constant @25°C <sup>[2]</sup>                | K <sub>m</sub>    | N/Sqrt(W) | 4.26     |
| Resistance @25°C ±10% <sup>[3]</sup>               | R <sub>25</sub>   | Ω         | 8.0      |
| Inductance ±20% <sup>[4]</sup>                     | L                 | mH        | 4.44     |
| Electrical Time Constant                           | τ <sub>e</sub>    | ms        | 0.55     |
| Continuous Current @100°C <sup>[1]</sup>           | I <sub>c</sub>    | A         | 0.8      |
| Peak Current                                       | I <sub>pk</sub>   | A         | 4.5      |
| Continuous Power Dissipation @100°C <sup>[1]</sup> | P <sub>c</sub>    | W         | 6.1      |
| Max. Coil Temperature                              | t <sub>max</sub>  | °C        | 100      |
| Thermal Dissipation Constant <sup>[1]</sup>        | K <sub>th</sub>   | W/°C      | 0.082    |
| Max. Voltage                                       | U <sub>max</sub>  | Vdc       | 60       |
| Coil Mass  | m <sub>coil</sub> | g         | 60.4     |
| Core Mass  | m <sub>core</sub> | g         | 175.1    |
| Running Clearance                                  | L <sub>gap</sub>  | mm        | 0.60     |

[1] Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment.

[2] The values are at mid stroke.

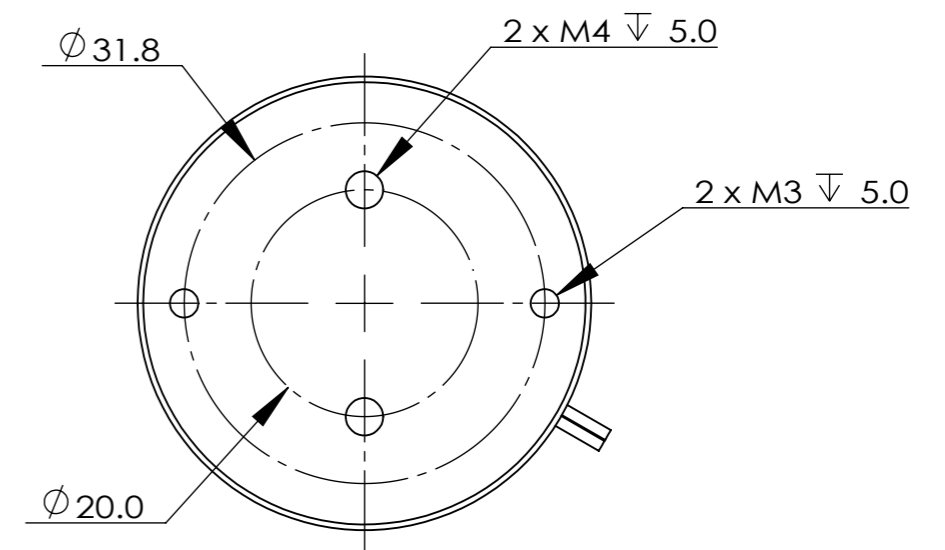
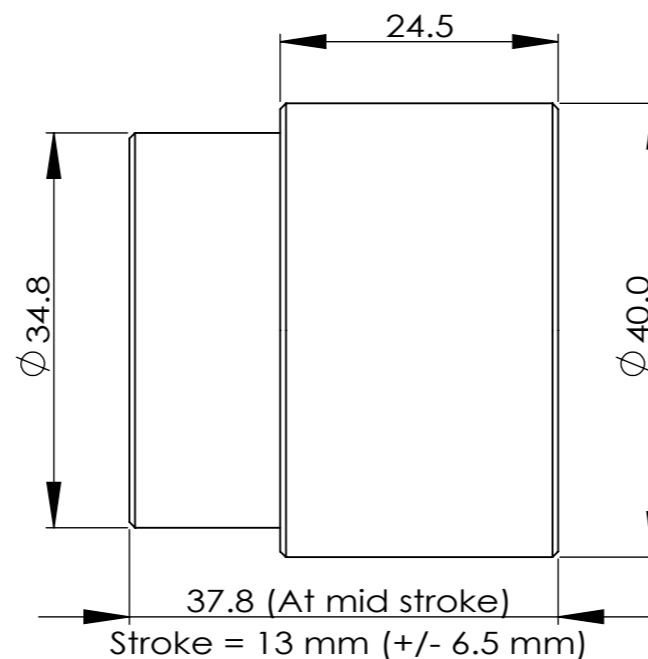
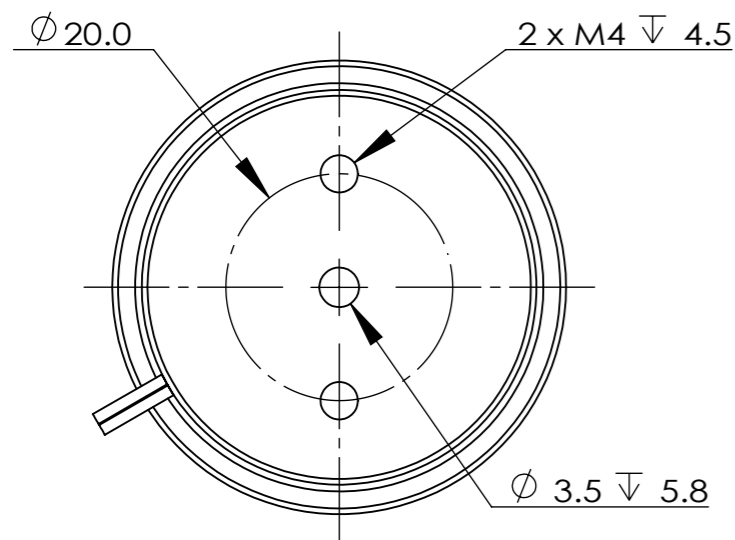
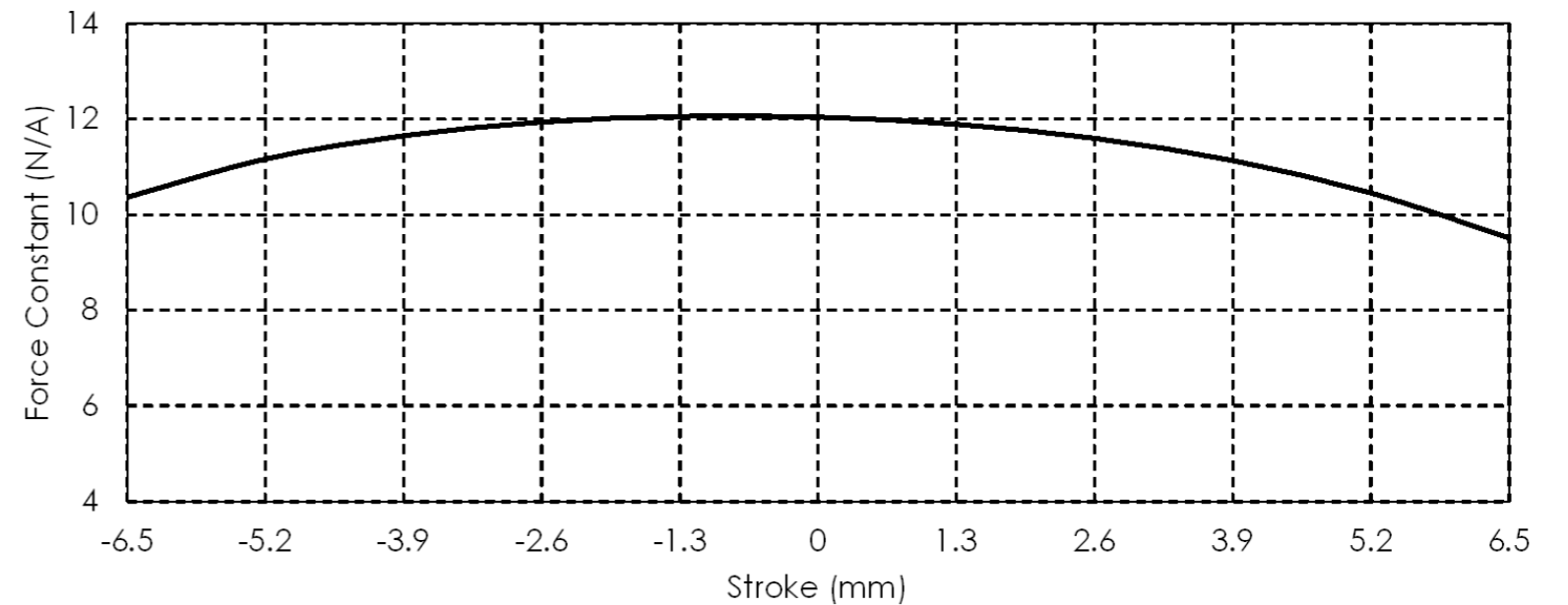
[3] Resistance is measured by DC current with 0.5 m lead wire.

[4] Inductance is measured by current frequency of 1 kHz.

The contents of datasheet are subject to change without prior notice.

# AVM40-13

| REV | DESCRIPTION     | BY | DATE       | APPD |
|-----|-----------------|----|------------|------|
| 0   | INITIAL RELEASE | YH | 2021/10/26 | YX   |



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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



|                   |    |            |
|-------------------|----|------------|
| Designed          | YH | 2021/10/25 |
| Drawn             | YH | 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:  | AVM40-13_Customer Drawing |
| Title:  | AVM40-13_Customer Drawing |
| Dwg No: | AVM40-13                  |
| Sheet:  | 1 OF 1                    |
| Rev:    | 0                         |