

► Slimline stepper motors

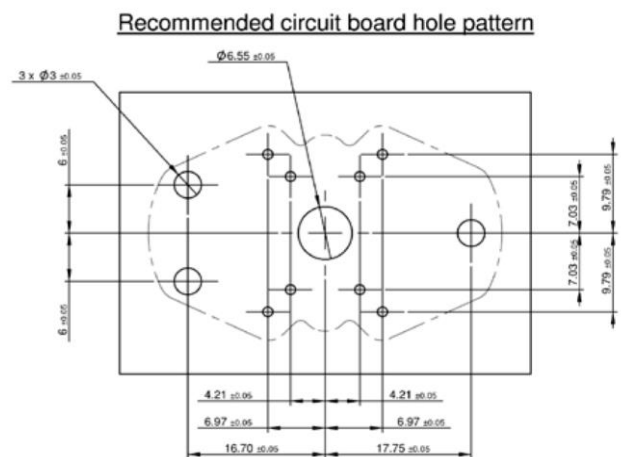
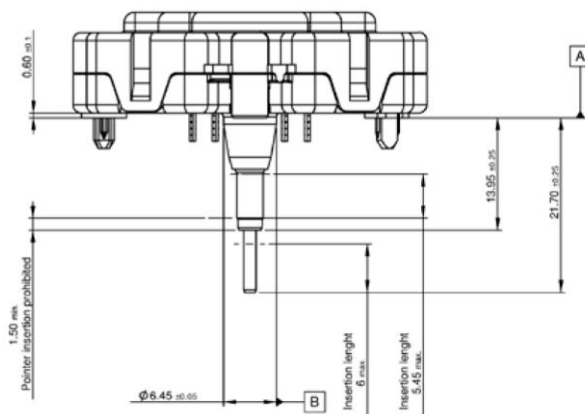
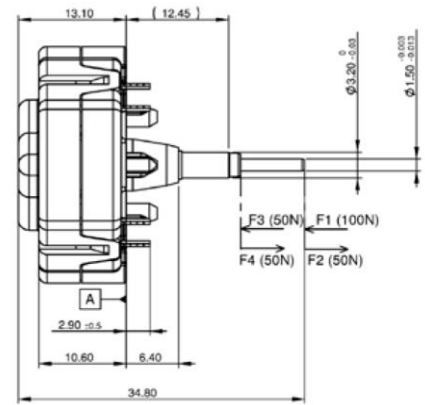
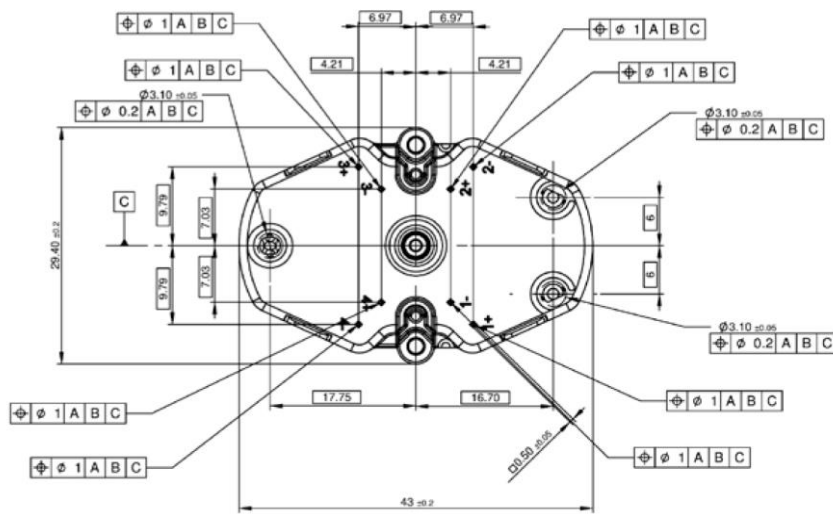
6407

- Nominal Torque 1.6 mNm
- Weight 11g
- Steel Output shafts.... $\varnothing 1.5^{-0.003} /_{-0.013}$ mm
- Plastic output shaft.... $\varnothing 3.2^0 /_{-0.03}$ mm

The 6407 Dual Stepper Motor permits independent movement of two concentric output shafts and is used in applications where combined indications are required.

► Dimensions

Drawing not to scale. All dimensions in mm.



► Technical data

Part N°	Position on PCB	Output shaft material	Shaft Diameter	Shaft length	Internal stop
6407R009	Rear Mount	Plastic	Ø 3.2 ⁰ / _{-0.03} mm	13.95 mm	yes
		Steel	Ø 1.5 ^{-0.003} / _{-0.013} mm	21.70 mm	yes

► Electrical / Mechanical Characteristics

Variables :

- Ambient temperature Ta = 22° C
- Voltage at the coils U = 5 V±0.1 V

Parameter	Min	Typical	Max	Unit
Rotor step angle	–	18	–	degree
Gear ratio	–	1:36	–	–
Pole pairs rotor	–	5	–	–
Step size degree in full step mode	–	0.5	–	degree
Step size degree with 6 micro steps	–	0.083	–	degree
Operating angle				
• Plastic output shaft	305	–	–	degree
• Steel output shaft	310	–	–	degree
Operating temperature	-40	–	105	°C
Storage temperature	-50	–	105	°C
Soldering temperature (max 5 sec)	–	–	290	°C
Operating voltage	4.5	–	7.5	V
Operating current	–	20	35	mA
Coil resistance	214	227	240	Ω
Coil Inductance	45	55	65	mH
Dynamic torque @ 200 ° / sec				
• Plastic output shaft	1.2	1.6	–	mNm
• Steel output shaft	1.2	1.6	–	mNm
Holding torque (with current, 5V)				
• Plastic output shaft	2.5	3.6	–	mNm
• Steel output shaft	2.5	3.6	–	mNm
Noise level @ 200 degree / sec @ 5 cm from the reference face, pre-test (one output shaft running at a time)	–	30	35	dB (A)
Maximum speed	800	–	–	°/s
Equivalent motor inertia at output	–	5.1 E-06	–	kg m ²
Permissible forces on output gear				
F1* Axial force	–	–	100	N
F2* Axial force (with retention of the housing)	–	–	50	N
F3* Axial force	–	–	50	N
F4* Axial force (with retention of the housing)	–	–	50	N
Radial force at 10 mm from front face of motor	–	–	15	N

* Refer to drawing

Special requirements upon customer specifications. Right to change reserved.

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SONCEBOZ SA

2605 Sonceboz – Switzerland

Tel. +41(0) 32 488 11 11

Fax +41(0) 32 488 11 00

info@sonceboz.com- www.sonceboz.com

