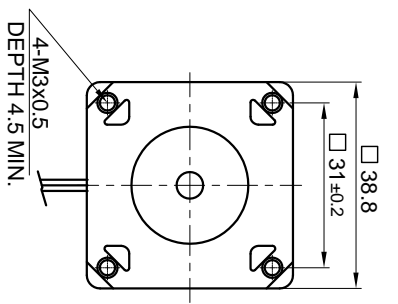
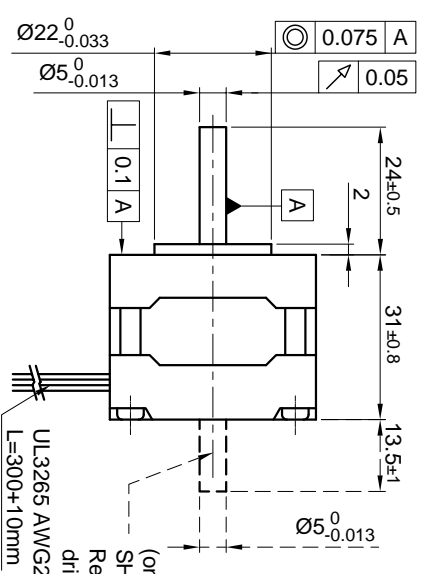


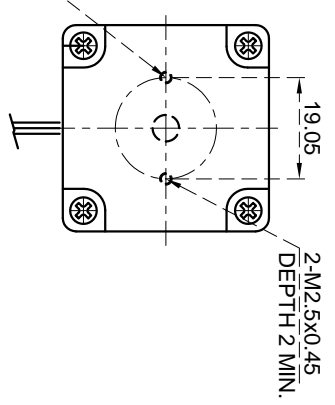
Front view and mounting



Side view

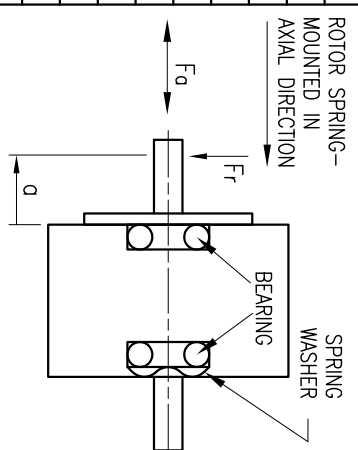


Rear view



CONNECTION	UNIPOLAR OR BIPOLAR - 1 WINDING	BIPOLAR SERIAL
SPECIFICATION		
VOLTAGE (VDC)	12	16.8
AMPS/PHASE	0.3	0.21
RESISTANCE/PHASE (Ohms)@25°C	40±15%	80±15%
INDUCTANCE/PHASE (mH) @1KHz	24±20%	96±20%
HOLDING TORQUE (Nm) [lb-in]	0.085 [0.752]	0.12 [1.062]
DETENT TORQUE (Nm) [lb-in]		4.9x10 ⁻³ [4.337x10 ⁻²]
STEP ANGLE (°)		0.9
STEP ACCURACY (NON-ACCUM)		±5%
ROTOR INERTIA (kg-m ²) [lb-in ²]		1.7x10 ⁻⁶ [5.8x10 ⁻³]
WEIGHT (kg) [lb]		0.17 [0.375]
TEMPERATURE RISE: MAX.80°C (MOTOR STANDSTILL; FOR 2 PHASE ENERGIZED)		
AMBIENT TEMPERATURE -10°~ 50°C [14°F ~ 122°F]		
INSULATION RESISTANCE 100 Mohm (UNDER NORMAL TEMPERATURE AND HUMIDITY)		
INSULATION CLASS B 130° [266°F]		
DIELECTRIC STRENGTH 500VAC FOR 1 MIN. (BETWEEN THE MOTOR COILS AND THE MOTOR CASE)		
AMBIENT HUMIDITY MAX. 85% (NO CONDENSATION)		

PERMISSIBLE RADIAL+AXIAL FORCE



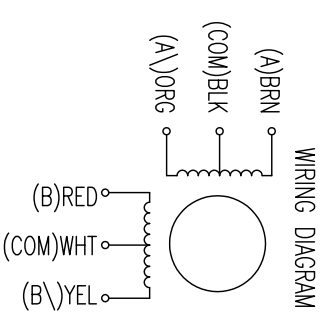
AXIAL-FORCE Fa (N)	Fr = 7
DISTANCE a (mm)	5 10 15 20
RADIAL-FORCE Fr (N)	58 36 26 20
AXIAL	0.075
RADIAL	0.025
SHAFT PLAY (mm)	0.075
AT LOAD MAX: (N)	10
	5.0

for >speed for <speed

FULL STEP 2 PHASE-Ex, WHEN FACING MOUNTING END (X)

STEP	A	B	A\	B\	CCW
1	+	+	-	-	
2	-	+	+	-	
3	-	-	+	+	
4	+	-	-	+	

TYPE OF CONNECTION (EXTERN)		MOTOR	
UNIPOLAR	BIPOLAR	LEADS	WINDING
A	A	BRN	A
COM	COM	BLK	COM
A\	A\	ORG	A\
B	B	RED	B
COM	COM	WHT	COM
B\	B\	YEL	B\



REV	DESCRIPTION	DATE	APVD

NANOTEC:
SH4009S0306

SCALE	FREE	APVD	CHKD	DRN	SIGNATURE	DATE
X	±0.5	S.K.	CHKD	DRN	J.W.	09.06.06
1PL	±0.2					
2PL	±0.1					
ANGLE	±30°					

STEPPING MOTOR
DWG.NO SH4009S0306