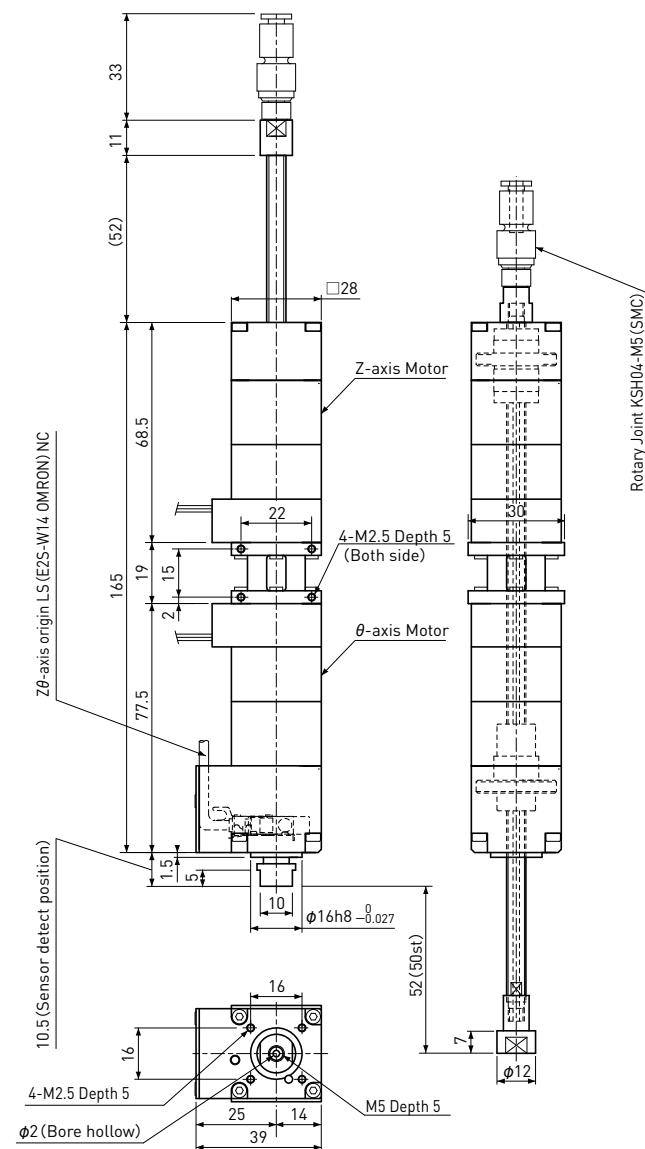


Standard style of VZ θ DD series

Direct Drive type

DDVZ28 - G10 - 050 N

□28 / NEMA 11 2-phase Stepping Motor
Lead 10mm Travel 50mm



Parts List	
Motor	NEMA 11 Hollow Stepping Motor 0.67A/phase
Drive Screw	Ball Screw $\phi 6$ (Lead 10mm)
Sliding Guide	Ball Spline $\phi 6$ mm
Sensor (Linear, Rotary)	Proximity Sensor E2S-W14-1M (OMRON)

Motor (Z, θ -axis)	
A	Black
$\bar{A}$	Green
B	Red
$\bar{B}$	Blue

UL1061, AWG24 (300mm)

Sensor (Z, θ -axis)	
+12~24V	Brown
LS	Black
GND	Blue

1000mm

● Specifications

※The numbers in table below are reference. Detail dimensions will be provided by drawing.

Items	Z Axis	θ Axis
Movable Range	50mm	$\pm 360^\circ$
Repeatability	± 0.010 mm	$\pm 0.03^\circ$
Resolution	50 μ m (Full Step)	1.8° (Full Step)
Maximum Speed	120mm / sec	3 rev / sec
Maximum acceleration	0.6 m/sec ²	150 π rad/sec ²
Reference Thrust Force	5N	—
Maximun Permissible Moment	—	0.15 $\times 10^{-4}$ kg·m ² (※1)
Mass	540g	
Operating Temperature	0~40°C (No Condensation)	

※1 For the Maximum Permissible Moment, see "Reference of Moment of Inertia" table above.
 ※2 For the technical information, see "Actuator Technical Description".

Reference of Moment of Inertia		
Dia.	Height	
	Aluminum	Steel
$\phi 20$ mm	340mm (300g)	120mm (300g)
$\phi 30$ mm	65mm (130g)	25mm (130g)
$\phi 40$ mm	20mm (75g)	7.5mm (75g)

Precautions

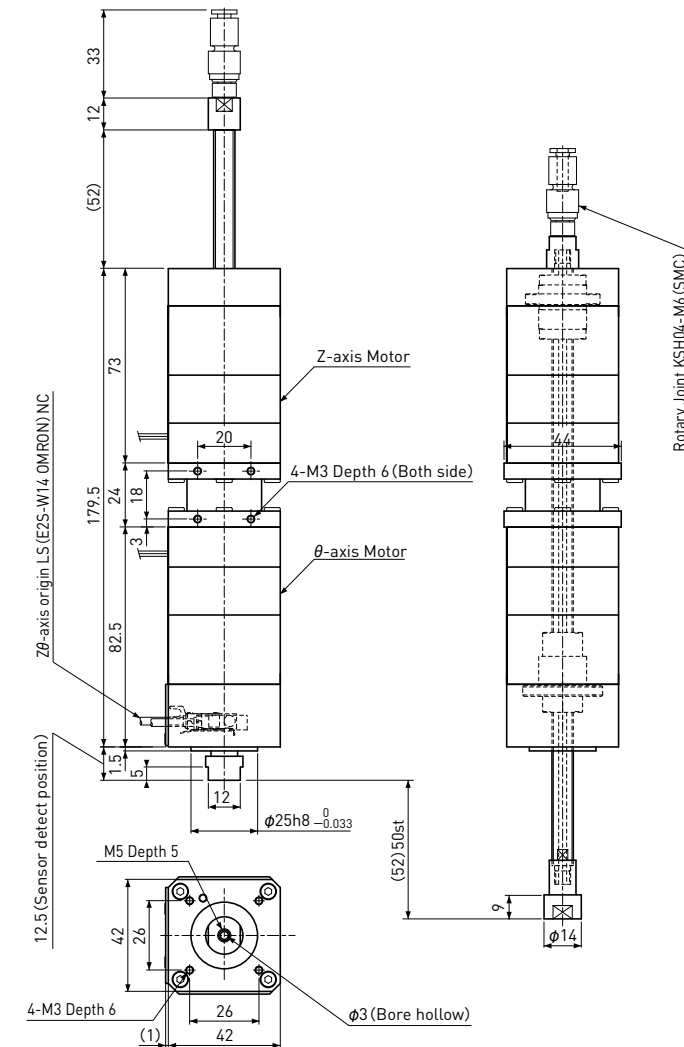
- 1) The Z-axis does not have brake device. Please be careful when the power supply is switched off in case Z-axis may free-fall.
- 2) Reference of Moment of Inertia table shows the theoretical values. KSS recommends that you should apply actual moment to the machine and confirm the safety operation before use.

Standard style of VZ θ DD series

Direct Drive type

DDVZ42 - G10 - 050 N

□42 / NEMA 17 2-phase Stepping Motor
Lead 10mm Travel 50mm



Parts List	
Motor	NEMA 17 Hollow Stepping Motor 1.2A/phase
Drive Screw	Ball Screw $\phi 8$ (Lead 10mm)
Sliding Guide	Ball Spline $\phi 8$ mm
Sensor (Linear, Rotary)	Proximity Sensor E2S-W14-1M (OMRON)

Motor (Z, θ -axis)	
A	Black
$\bar{A}$	Green
B	Red
$\bar{B}$	Blue

UL1061, AWG24 (300mm)

Sensor (Z, θ -axis)	
+12~24V	Brown
LS	Black
GND	Blue

1000mm

● Specifications

※The numbers in table below are reference. Detail dimensions will be provided by drawing.

Items	Z Axis	θ Axis
Movable Range	50mm	$\pm 360^\circ$
Repeatability	± 0.010 mm	$\pm 0.03^\circ$
Resolution	50 μ m (Full Step)	1.8° (Full Step)
Maximum Speed	200mm / sec	3 rev / sec
Maximum acceleration	1 m/sec ²	150 π rad/sec ²
Reference Thrust Force	25N	—
Maximun Permissible Moment	—	0.15 $\times 10^{-3}$ kg·m ² (※1)
Mass	1150g	
Operating Temperature	0~40°C (No Condensation)	

※1 For the Maximum Permissible Moment, see "Reference of Moment of Inertia" table above.
 ※2 For the technical information, see "Actuator Technical Description".

Reference of Moment of Inertia		
Dia.	Height	
	Aluminum	Steel
$\phi 30$ mm	670mm (1300g)	240mm (1300g)
$\phi 50$ mm	85mm (460g)	30mm (460g)
$\phi 100$ mm	5mm (110g)	1.5mm (90g)

Precautions

- 1) The Z-axis does not have brake device. Please be careful when the power supply is switched off in case Z-axis may free-fall.
- 2) Reference of Moment of Inertia table shows the theoretical values. KSS recommends that you should apply actual moment to the machine and confirm the safety operation before use.