

# SE46

• General characteristics

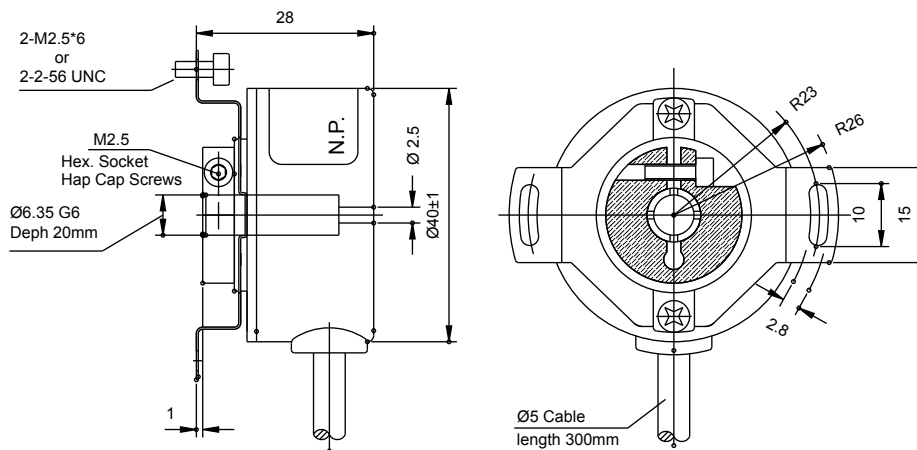


Assembling method	2 screw (M2.5 or 2-56 UNC) Ø 46 mm
Input shaft	length 10~20 mm - Ø 6.35 mm G6
Operative temperature	-20° C ~ +100° C
Storage temperature	-20° C ~ +100° C
Protection	IP50
Axial load	10 N
Radial load	20 N
Max revolutions	6000 rpm
Feedback signals	A, A/, B, B/, Z, Z/
Phasing	90° electrical between A and B phases
Material body	Metal
Vibration resistance	100 m/s <sup>2</sup> , 10...200Hz
Shock resistance	1000 m/s <sup>2</sup> , 6ms
Connections	cable Ø5mm length 300mm

• Specifications

Model Code	Outputs	Power supply voltage (Vdc)	Maximal current (mA)	Output current (mA)	Output voltage (V)	Leading and falling edge (ms)	Resolution (ppr)	Maxmal output frequency (kHz)	Starting torque (Nm)	Weight (gr)
SE460400AA10030	Line driver or push-pull 24 Vdc	10~30 ±10%	<150@VDD=24Vdc	±20	>2,5 (H) <0,5 (L)	<100	400	<100	3x10 <sup>-3</sup>	80
SE460400AB10030	Line driver 5 Vdc	5 ±5%	<150@VDD=5Vdc	±20	>2,5 (H) <0,5 (L)	<100	400	<100	3x10 <sup>-3</sup>	80
SE461000AA10030	Line driver or push-pull 24 Vdc	10~30 ±10%	<150@VDD=24Vdc	±20	>2,5 (H) <0,5 (L)	<100	1000	<100	3x10 <sup>-3</sup>	80
SE461000AB10030	Line driver 5 Vdc	10~30 ±10%	<150@VDD=24Vdc	±20	>2,5 (H) <0,5 (L)	<100	1000	<100	3x10 <sup>-3</sup>	80
SE462000AA10030	Line driver or push-pull 24 Vdc	10~30 ±10%	<150@VDD=24Vdc	±20	>2,5 (H) <0,5 (L)	<100	2000	<100	3x10 <sup>-3</sup>	80
SE462000AB10030	Line driver 5 Vdc	10~30 ±10%	<150@VDD=24Vdc	±20	>2,5 (H) <0,5 (L)	<100	2000	<100	3x10 <sup>-3</sup>	80

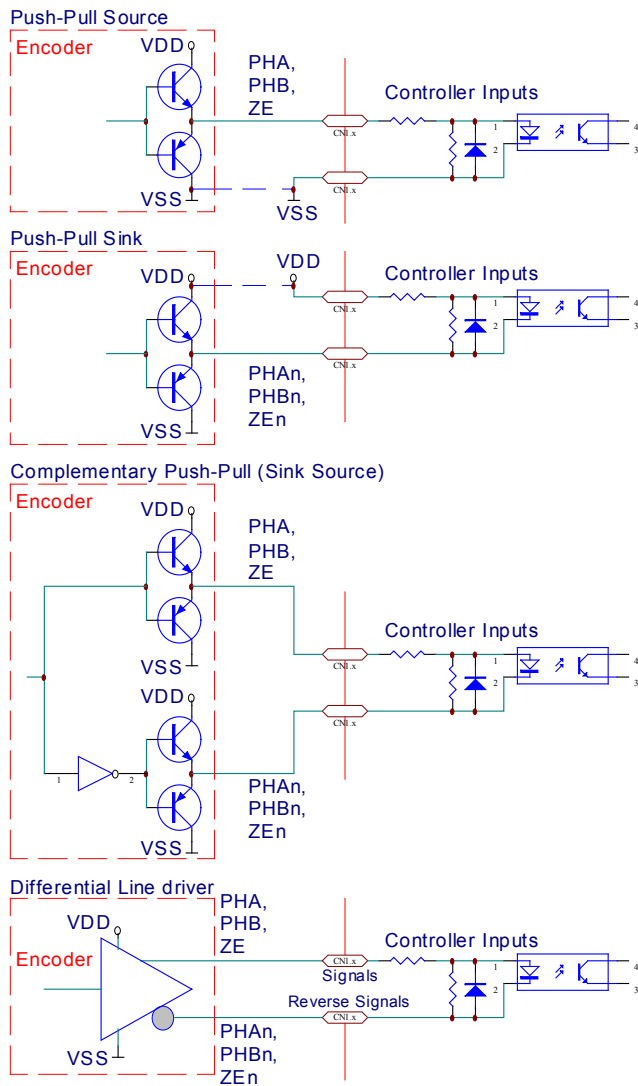
• Dimensions (Unit: mm)



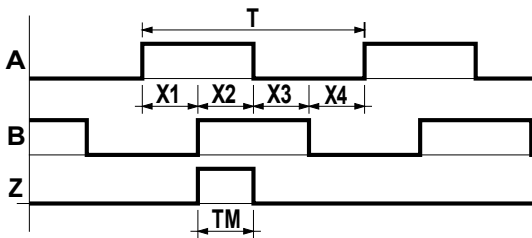
• Wires output

Lead color	White	Black	Red	Pink	Green	Blue	Yellow	Orange	[Shield]
Connection	VDC	0V	A	A/	B	B/	Z	Z/	G
Description	Power supply (+)	Power supply (-)	Non-inverting output phase A	Inverting output phase A	Non-inverting output phase B	Inverting output phase B	Non-inverting output phase Z	Inverting output phase Z	Cable shield

• Output circuitry



• Waveforms



The waveforms viewed from the coupled plate and clockwise rotation

Waveforms Ratio :  $X1 + X2 = 0.5T \pm 0.1T$

$X2 + X3 = 0.5T \pm 0.1T$

Phase Shift :  $Xn > 0.15T$  ( $n=1,2,3,4$ )

Zero Signal Width :  $TM = 0.25T$

Quality of motors, coding table and usage

2-phases hybrid step motors  
NEMA 10 (25 mm)

2-phases hybrid step motors  
NEMA 12 (28 mm)  
NEMA 14 (35 mm)

2-phases hybrid step motors  
NEMA 17 (42 mm)

2-phases hybrid step motors  
NEMA 23 (57 mm)

2-phases hybrid step motors  
NEMA 24 (60 mm)

2-phases hybrid step motors  
NEMA 34 (86 mm)

2-phases hybrid step motors  
NEMA 42 (110 mm)  
Linear actuator  
NEMA 17 (42 mm)

2-phases permanent magnet step motors  
NEMA 12 (25 mm)  
NEMA 14 (35 mm)

2-phases permanent magnet step motors  
NEMA 17 (42 mm)

DC brushless motors  
NEMA 17 (42 mm)  
NEMA 23 (57 mm)

DC brushless motors with integrated driver  
NEMA 17 (42 mm)  
NEMA 23 (57 mm)

Encoders

Planetary gearboxes

Notes