

PS40A

Encoder modules



● Application

- Stepping Motor
- Automated Equipment

● Feature

- Reliable sturdy design
- Small Size
- Easy Mounting

● Resolution

600, 625, 720, 800, 1000, 1024, 1200, 1250, 1440, 1600, 2000, 2048, 2400, 2500, 2880, 3200, 4000, 4096, 16000 P/R

● Electrical Spec

Resolution	600 ~ 4096			5000 ~ 16000
Output circuit	Z_VH / Z_VT Z_OH / Z_OT	Z_PH / Z_PT	Z_LH / Z_LT	Z_LH / Z_LT
Supply voltage	8 ~ 28V · 4.5 ~ 5.5V			8 ~ 28V · 4.5 ~ 5.5V
Supply current (Max.)	80mA		100mA	110mA
Signal	A, B, Z		A+,A-,B+,B-,Z+,Z-	A+,A-,B+,B-,Z+,Z-
Rise/fall time (Max.)	250ns*	50ns		10ns
Frequency	300kHz	500kHz		1.5MHz
Outout voltage	"H"	VCC – 2V		2.4V min.
	"L"	0.5V Max.		0.5V Max.
Max. output current	20mA	100mA	20mA · 100mA	20mA

*Pull up Resistance = 2kΩ

● Mechanical Spec

Hollow Diameter	Φ 5, 6, 6.35, 8mm
Housing material	PC
Max. R.P.M.	7500 rpm *
Net Weight	60g

*R.P.M = Frequency * 60 / Resolution

● Environmental Spec

Operating Temp.	-20 ~ +85°C
Storage Temp.	-20 ~ +85°C
Operating Humidity	RH 85% Max. non-collecting
Shock	490 m/s ² , 3Dx2 times
Vibration	1.2mm, 10~55KHz, 3Dx30min.
Protection	IP 40

PS40A

Encoder modules

● Connection

Signal : A, B, Z (UL2464 · AWG 26 · 5pin + Shield)

JST-S6B-ZR-SM4A-TF (Compatible headers)

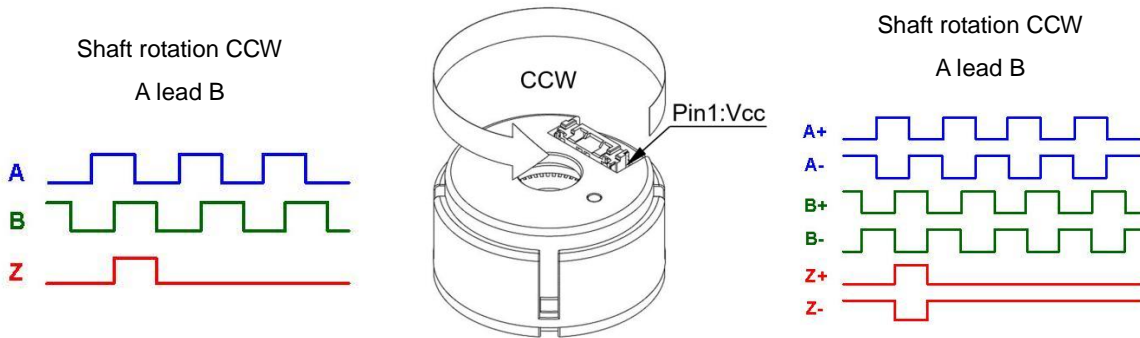
Red	Black	White	Green	Yellow	
Vcc	Gnd	A	B	Z	Shield

Signal : A+, A-, B+, B-, Z+, Z- (UL2517 · AWG 26 or AWG 28 · 8pin + Shield)

Molex-5023860970

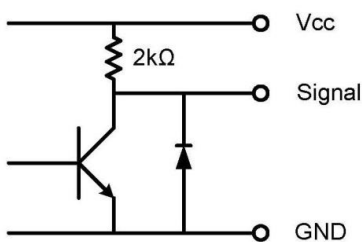
Red	Black	White	White/Black	Green	Green/Black	Yellow	Yellow/Black	
Vcc	Gnd	A+	A-	B+	B-	Z+	Z-	Shield

● Output Waveform

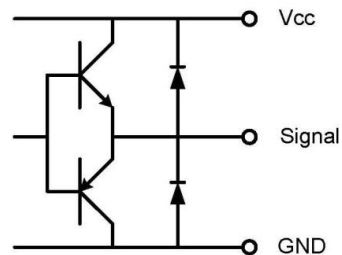


● Output Circuit

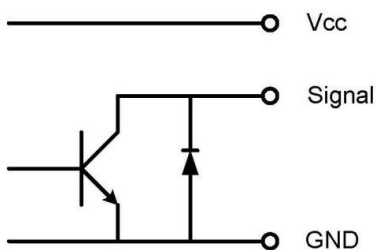
Voltage output



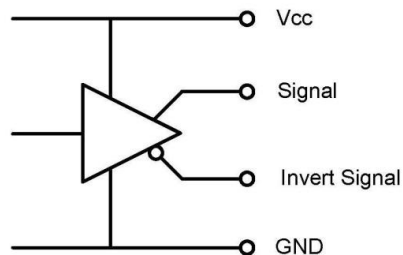
Push pull



Open collector



Line driver 5V =>(26C31) · 28V(7272)

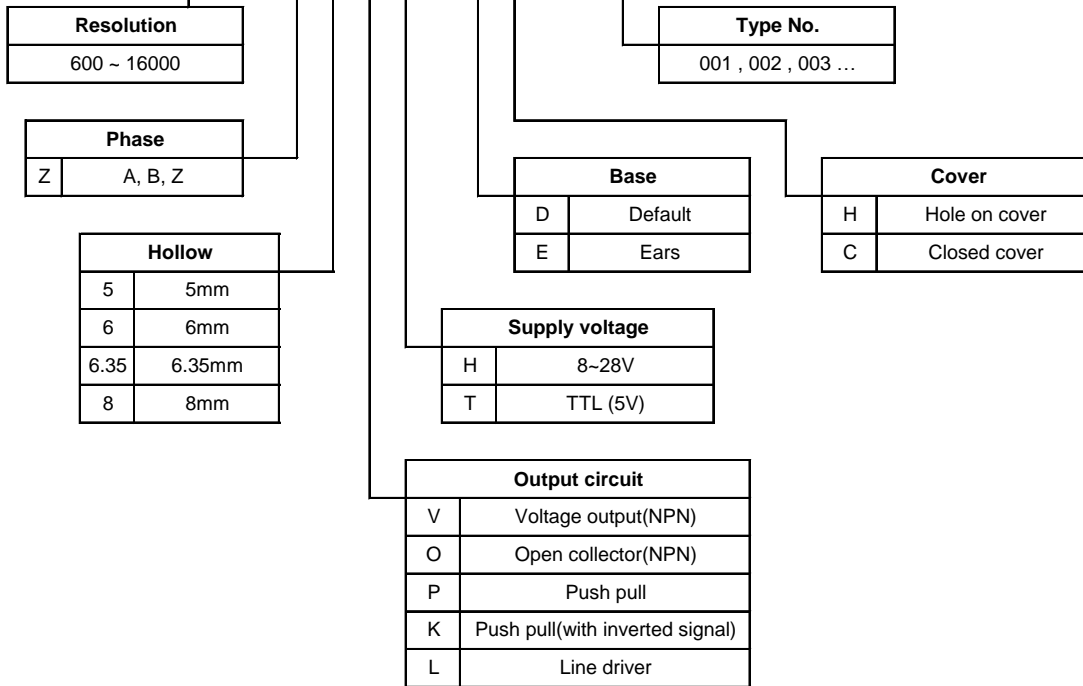


PS40A

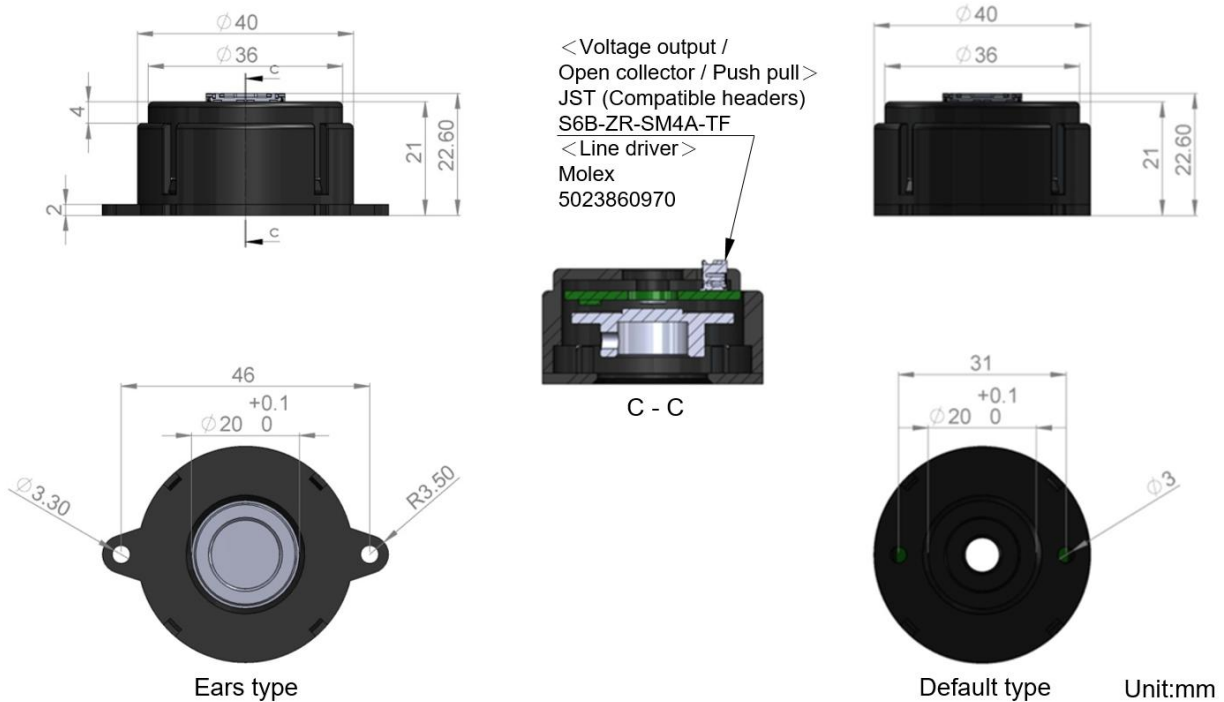
Encoder modules

Ordering Information

PS40A - XXXX - X X X X - X X - NXXX



Mechanical Drawing



PS40A

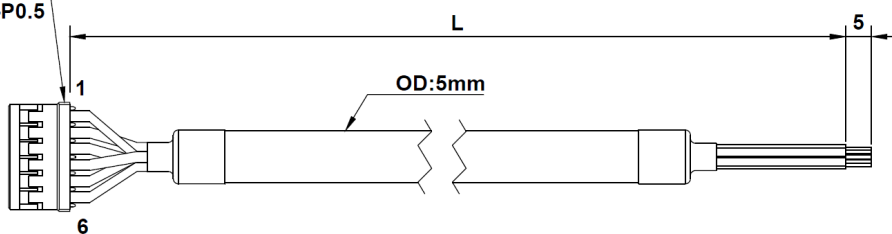
Encoder modules

● Cable Introduction

< Voltage output / Open collector / Push pull >

JST (Compatible housing)
ZHR-6
SZH-002T-P0.5

Color:
1.Red
2.Black
3.White
4.Green
5.Yellow
6.Shield



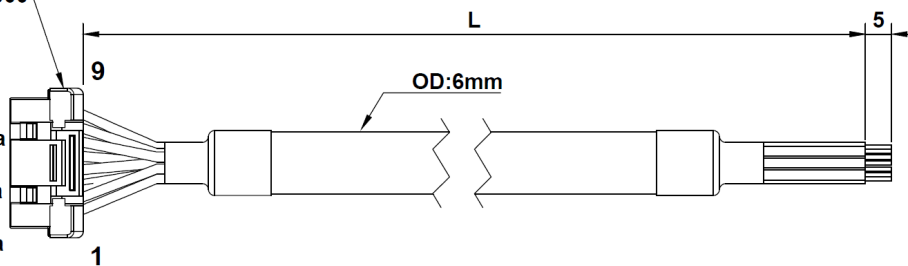
<Wire spec>
AWG26 · UL2464 · Sprial shielding

Cable length : 305 · 500mm

< Line driver >

Molex
5023800900
5023810000

Color:
1.Red
2.Black
3.White
4.Whi/Bla
5.Green
6.Gre/Bla
7.Yellow
8.Yell/Bla
9.Shield



<Wire spec>
AWG26 or AWG28 · UL2517 · Braid shielding

Stranded type:
1.Red+Black
2.White+Whi/Bla
3.Green+Gre/Bla
4.Yellow+Yell/Bla

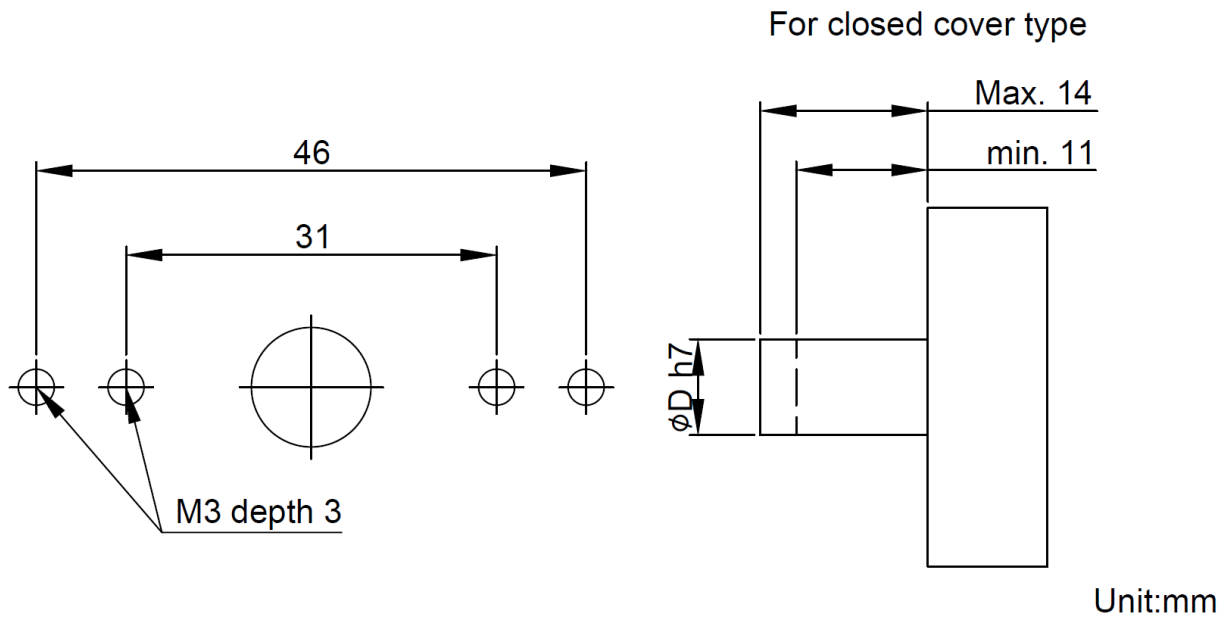
Cable length : 305 · 500mm

PS40A

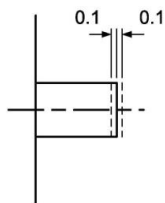
Encoder modules

● Setting Dimension

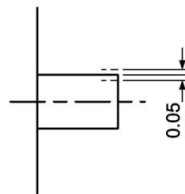
Mounting Screw Size : M3 x 5mm



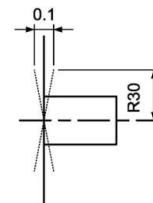
Axial assembly tolerance



Radial assembly tolerance



Concentric angle tolerance



Headquarter Switzerland:
Angst+Pfister Sensors and Power AG

Thurgauerstrasse 66
CH-8050 Zurich
Phone +41 44 877 35 00
sensorsandpower@angst-pfister.com

Office Germany:
Angst+Pfister Sensors and Power
Deutschland GmbH
Edisonstraße 16
D-85716 Unterschleißheim
Phone +49 89 374 288 87 0
sensorsandpower.de@angst-pfister.com



We are here for you. Addresses and Contacts.

Sales Germany & Austria

Geometrical sensors
Other products

Kurt Stritzelberger
Phone +49 89 374 288 87 22
kurt.stritzelberger@angst-pfister.com

Pressure sensors
Other products

Gerhard Vetter
Phone +49 89 374 288 87 26
gerhard.vetter@angst-pfister.com

Gas sensors and modules

Peter Felder
Phone +41 44 877 35 05
peter.felder@angst-pfister.com

Sales Switzerland & Liechtenstein

Postcode 3000 – 9999

Basil Frei
Phone +41 44 877 35 18
basil.frei@angst-pfister.com

Postcode 1000 – 2999

Christian Mohrenstecher
Phone +41 76 444 57 93
christian.mohrenstecher@angst-pfister.com

Sales International Key Accounts

Peter Felder
Phone +41 44 877 35 05
peter.felder@angst-pfister.com

Sales Other Countries / Product Management

Pressure Sensors
Load Cells

Philipp Kistler
Phone +41 44 877 35 03
philipp.kistler@angst-pfister.com

Gas sensors
Gas sensor modules

Dr. Thomas Clausen
Phone +49 89 374 288 87 24
thomas.clausen@angst-pfister.com

Flow / Level / Medical products

Dr. Adriano Pittarelli
Phone +49 89 374 288 87 67
adriano.pittarelli@angst-pfister.com

Power supplies

Sebastiano Leggio
Phone +41 44 877 35 06
sebastiano.leggio@angst-pfister.com

Linear position sensors
Angle sensors

Eric Letsch
Phone +41 44 877 35 14
eric.letsch@angst-pfister.com

Accelerometers
Sensor elements

Christoph Kleye
Phone +49 89 374 288 87 61
christoph.kleye@angst-pfister.com

Drive technology
CH Postcode 5000 – 9999 / DE

Roman Homa
Phone +41 76 444 00 86
roman.homa@angst-pfister.com

Drive technology
CH Postcode 1000 – 4999 / AT / IT / FR

Christian Mohrenstecher
Phone +41 76 444 57 93
christian.mohrenstecher@angst-pfister.com

Harald Thomas
Phone +49 89 374 288 87 23
harald.thomas@angst-pfister.com