

※ ISC5208 SERIES

Shaft diameter $\Phi 8$ mm, clamping flange, housing diameter $\Phi 52$ mm.

Low price at high performance, small volume, light weight, easy for installing

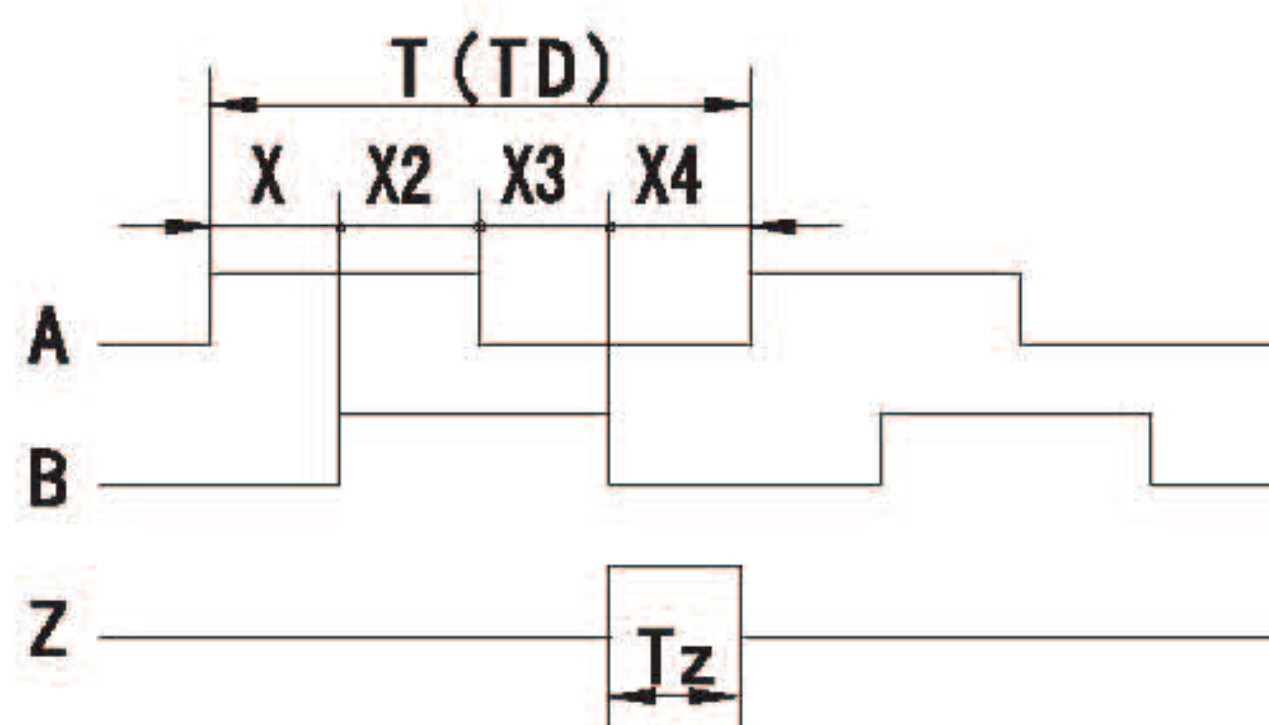
Applications:

Measure the distance, angle, position, acceleration

molding machines, packing machines, machine tool and other digital control equipment.

Output waveform

90° Output phase difference, CW rotation (CW rotation as seen from fit surface)



Square-wave accuracy: $X_1 + X_2 = 1/2T \pm 1/12T$

$X_3 + X_4 = 1/2T \pm 1/12T$

Pitch error of period: $\pm 0.01T$

Pitch error of phase position: $\leq 1/18T$

Z phase: $T_z = 1/4T$ (1T, 1/2T, 1/4T...)

Period of pulses: $T = 360^\circ / N$ (N : output pulses)

Signal accuracy: $X_n = 1/4T \pm 1/12T$ (n=1, 2, 3, 4)

A leads B clockwise when viewing the encoder shaft end,

The position of Z phase against A, B phase is not specified.

Terminal assignment

| Signal | +5V | 0V | SIG A | SIG \bar{A} | SIG B | SIG \bar{B} | SIG Z | SIG \bar{Z} | Shield |
|-------------|-----|-------|-------|---------------|-------|---------------|--------|---------------|--------|
| Cable Color | Red | Black | Green | Brown | White | Grey | Yellow | Orange | N.C |

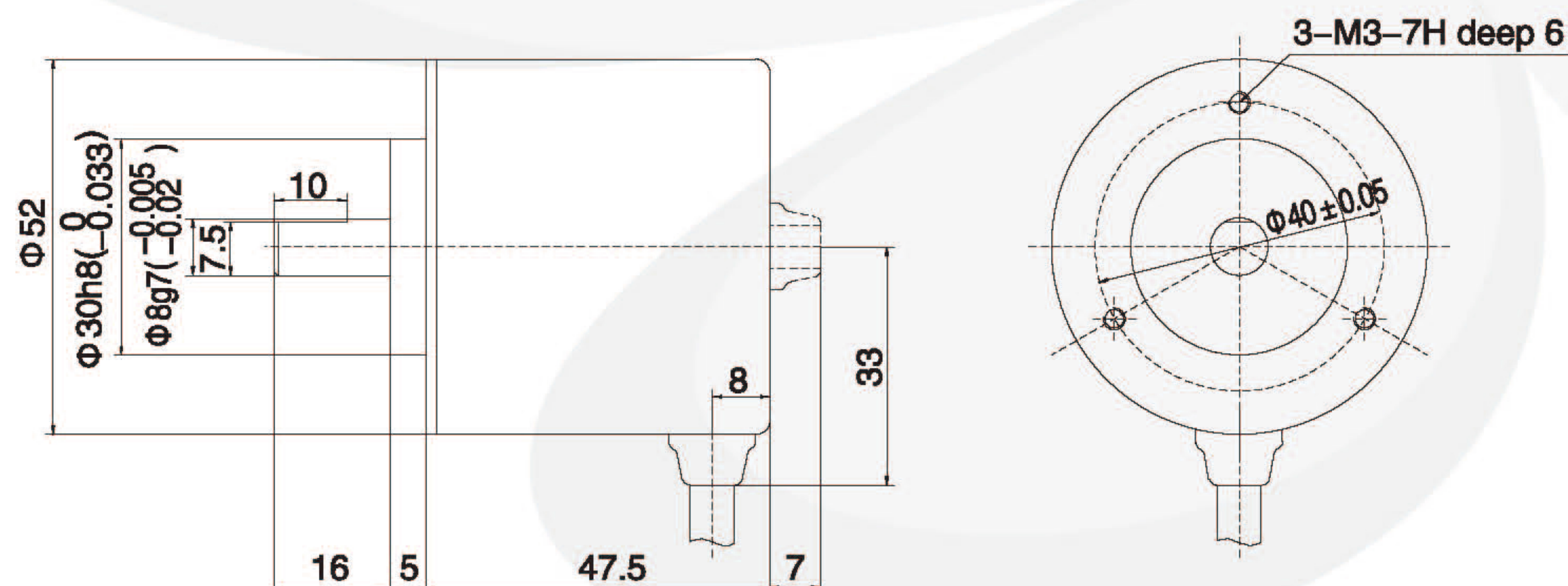
Note: Shield is attached to connector housing, One meter cable lengths (other cable lengths on order).

Ordering code

| | | | | | | | | |
|---------|---|-----------------|------------|------------------|----------------|---|----------------|----------------|
| ISC5208 | — | G01 | G | 1024 | BZ1 | — | 12-24 | C |
| Series | | Sequence Number | Connection | Number of Pulses | Output Signals | | Supply Voltage | Output Circuit |

Series: ISC5208, Radial cable: G, Number of pulses: 1024 p/r, Output signals : ABZ, $T_z = 1T$, Supply voltage: 12-24V DC, Output circuit: Open collector NPN, Record: ISC5208-G01G1024BZ1-12-24C

Dimensions



TECHNICAL SPECIFICATIONS

| ELECTRICAL SPECIFICATIONS | |
|---------------------------------|--|
| Output wave | Square wave |
| Output signals | A, B, Z, (Line driver output A, \bar{A} , B, \bar{B} , Z, \bar{Z} phase) |
| Current consumption | $\leq 150\text{mA}$ |
| Response Frequency | 0~100KHz |
| Output phase difference | $90^\circ \pm 45^\circ$ |
| Supply voltage | 5V DC, 5-12V DC, 12-24V DC |
| Signal level | $V_H \geq 85\%V_{CC}$, $V_L \leq 0.3V$ |
| Number of pulses | 100, 120, 125, 150, 180, 200, 250, 256, 300, 360, 400, 500, 512, 600, 720, 800, 900, 1000, 1024, 1200, 1800, 2000, 2048, 2500 (Other number of pulse available on request) |
| Output circuit | Open collector NPN, Push pull, Line driver, Voltage |
| MECHANICAL SPECIFICATIONS | |
| Speed without sealing | 6000rpm |
| Rotor moment of inertia | Appr. $6.0 \times 10^{-6} \text{Kg} \cdot \text{m}^2$ |
| Starting torque without sealing | $\leq 5.0 \times 10^{-3} \text{Nm}$ (+25°C) |
| Maximum load permitted on shaft | Radial 35N, Axial 25N |
| Shock resistance | 980m/s^2 , 6ms, 2 times each on XYZ |
| Vibration proof | 50m/s^2 , 10~200Hz, 2 hours each on XYZ |
| Working life | MTBF $\geq 25000\text{h}$ (+25°C, 2000rpm) |
| Weight | Appr. 210g (with 1 meter cable) |
| ENVIRONMENTAL SPECIFICATIONS | |
| Working humidity | 30~85% (No condensation) |
| Storage temperature | -40°C~100°C |
| Working temperature | -25°C~85°C |
| Protection class | IP54 |

※ ISA5208 SERIES

Shaft diameter $\Phi 8$ mm , clamping flange, housing diameter $\Phi 52$ mm.

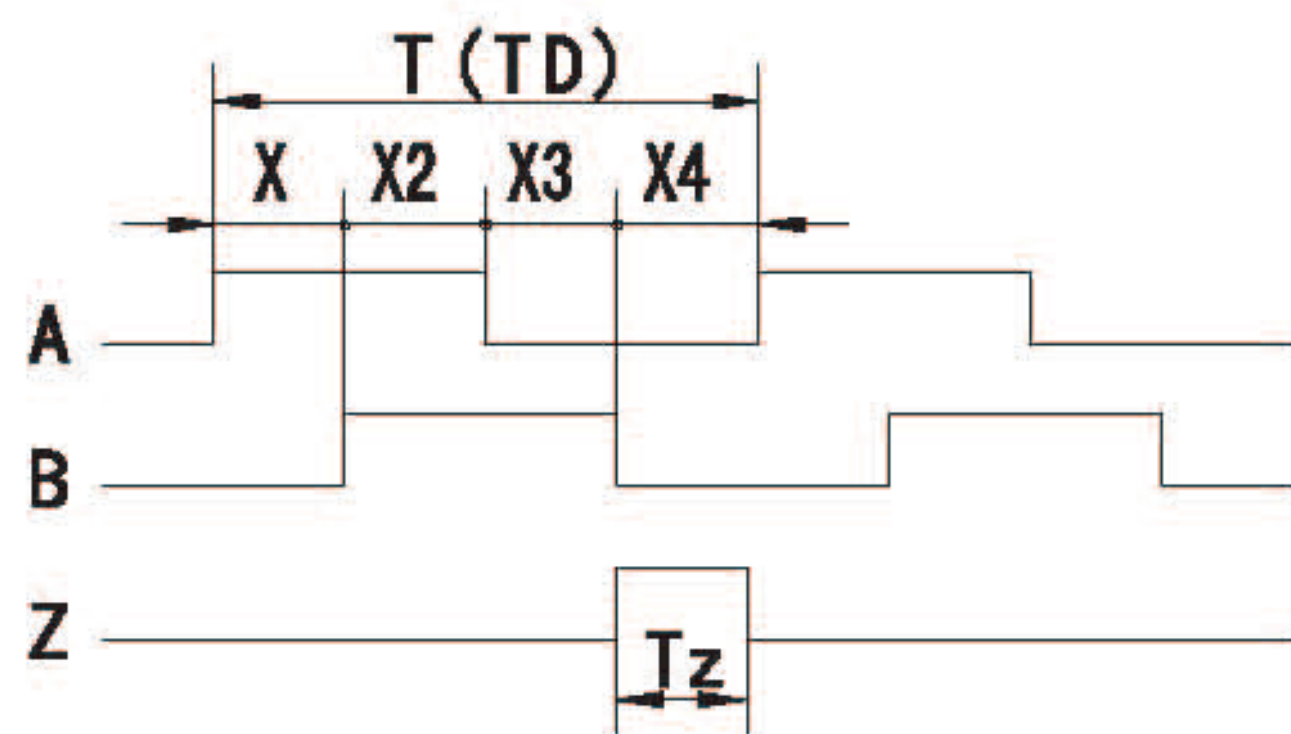
Low price at high performance, small volume, light weight, easy for installing

Applications:

Suitable for measuring the length or speed of target by wheel type. The circumference of wheel has three types: (S1=200mm, S2=204mm, S3=300mm)

Output waveform

90° Output phase difference, CW rotation (CW rotation as seen from fit surface)



Square-wave accuracy: $X_1+X_2=1/2T \pm 1/12T$
 $X_3+X_4=1/2T \pm 1/12T$

Pitch error of period: $\pm 0.01T$

Pitch error of phase position: $\leq 1/18T$

Z phase: $T_z = 1/4T$ (1T, 1/2T, 1/4T...)

Period of pulses: $T=360^\circ / N$ (N : output pulses)

Signal accuracy: $X_n=1/4T \pm 1/12T$ (n=1, 2, 3, 4)

A leads B clockwise when viewing the encoder shaft end,
The position of Z phase against A, B phase is not specified.

Terminal assignment

| Signal | +5V | 0V | SIG A | SIG \bar{A} | SIG B | SIG \bar{B} | SIG Z | SIG \bar{Z} | Shield |
|-------------|-----|-------|-------|---------------|-------|---------------|--------|---------------|--------|
| Cable Color | Red | Black | Green | Brown | White | Grey | Yellow | Orange | N.C |

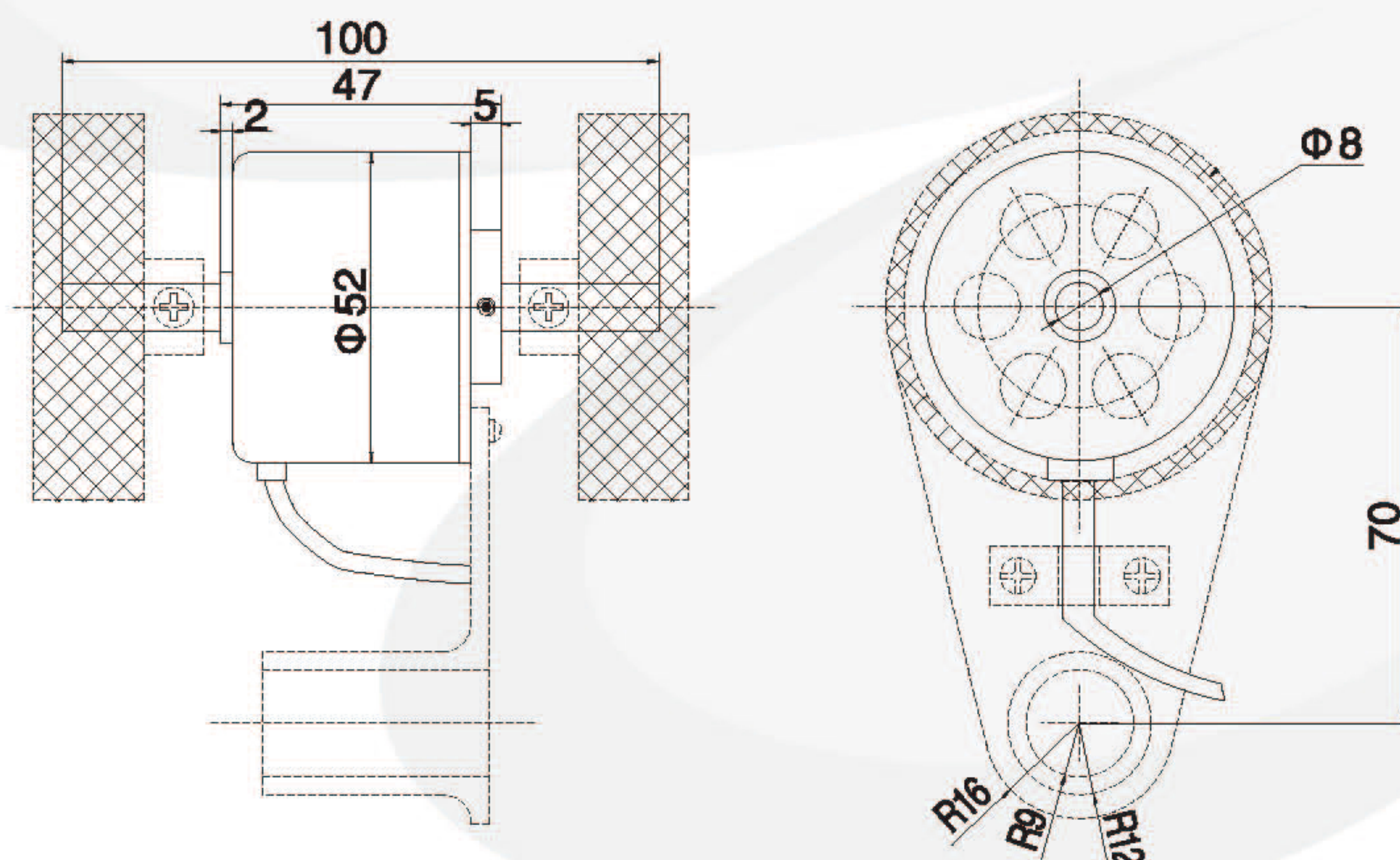
Note: Shield is attached to connector housing, One meter cable lengths (other cable lengths on order).

Ordering code

| | | | | | | | | |
|---------|---|-----------------|------------|------------------|----------------|---|----------------|----------------|
| ISA5208 | — | 401 | G | 300 | BZ1 | — | 5 | L |
| Series | | Sequence Number | Connection | Number of Pulses | Output Signals | | Supply Voltage | Output Circuit |

Series: ISA5208, Radial cable: G, Number of pulses: 300 p/r, Output signals: AAB \bar{B} Z \bar{Z} , $T_z=1T$, Supply voltage: 5V DC, Output circuit: Line driver, Record: ISA5208-401G300BZ1-5L

Dimensions



TECHNICAL SPECIFICATIONS

| ELECTRICAL SPECIFICATIONS | |
|---------------------------------|---|
| Output wave | Square wave |
| Output signals | A, B, Z, (Line driver output A, \bar{A} , B, \bar{B} , Z, \bar{Z} phase) |
| Current consumption | $\leq 150mA$ |
| Response Frequency | 0~100KHz |
| Output phase difference | $90^\circ \pm 45^\circ$ |
| Supply voltage | 5V DC, 5-12V DC, 12-24V DC |
| Signal level | $V_H \geq 85\%V_{CC}$, $V_L \leq 0.3V$ |
| Number of pulses | 120,200,250,300,360,400,500,600, 740,800,900,1000,1024,1200,1500, 1800,2000,2048,2500,3000,3600 (Other number of pulse available on request) |
| Output circuit | Open collector NPN, Push pull, Line driver, Voltage |
| MECHANICAL SPECIFICATIONS | |
| Speed without sealing | 5000rpm |
| Rotor moment of inertia | Appr. $7.5 \times 10^{-6} Kgm^2$ |
| Starting torque without sealing | $\leq 4.0 \times 10^{-3} Nm$ (+25°C) |
| Maximum load permitted on shaft | Radial 75N, Axial 50N |
| Shock resistance | $980m/s^2$, 6ms, 2 times each on XYZ |
| Vibration proof | $50m/s^2$, 10~200Hz, 2 hours each on XYZ |
| Working life | MTBF $\geq 25000h$ (+25°C, 2000rpm) |
| Weight | Appr. 440g (with 0.5 meter cable) |
| ENVIRONMENTAL SPECIFICATIONS | |
| Working humidity | 30~85% (No condensation) |
| Storage temperature | -30°C~85°C |
| Working temperature | -10°C~70°C |
| Protection class | IP54 |