

## ※ ISM6045 SERIES

Suitable for manual pulse input type such as NC or milling machinery

High reliability, terminal connection type

Power supply: 5V DC, 12V DC

Customer's logo is available

### Application:

Industrial tooling machinery



## ➤ TECHNICAL SPECIFICATIONS

### ELECTRICAL SPECIFICATIONS

Output wave	Square wave
Output signals	A, B (Line driver output A, A, B, B phase)
Current consumption	≤ 100mA
Response Frequency	0~20KHz
Output phase difference	90° ± 45°
Supply voltage	5V DC, 12V DC
Signal level	$V_{OH} \geq 85\%V_{CC}$ , $V_{OL} \leq 0.3V$
Number of pulses	100 (Other number of pulse available on request)
Output circuit	Open collector NPN, Push pull, Line driver, Voltage

### MECHANICAL SPECIFICATIONS

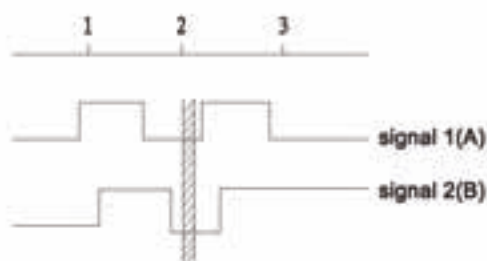
Signal position	4 kind
Speed without sealing	500rpm
Starting torque without sealing	≤ 1.0x 10 <sup>-3</sup> Nm (+25°C)
Shock resistance	980m/s <sup>2</sup> , 6ms, 2 times each on XYZ
Vibration proof	50m/s <sup>2</sup> , 10~200Hz, 2 hours each on XYZ
Working life	MTBF ≥ 10000h (+25°C, 2000rpm)
Weight	Appr. 200g

### ENVIRONMENTAL SPECIFICATIONS

Working humidity	30~85% (No condensation)
Storage temperature	-30°C~85°C
Working temperature	-10°C~70°C
Protection class	IP54

## ➤ Output waveform

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



A leads B clockwise when viewing the encoder shaft end.

Click-stop position falls within hatched area.

## ➤ Terminal assignment

Code	1	2	3	4	5	6
Line driver output	+5V	0V	SIG A	SIG A	SIG B	SIG B
Other Output circuit	+5V	0V	SIG A	SIG B	-	-

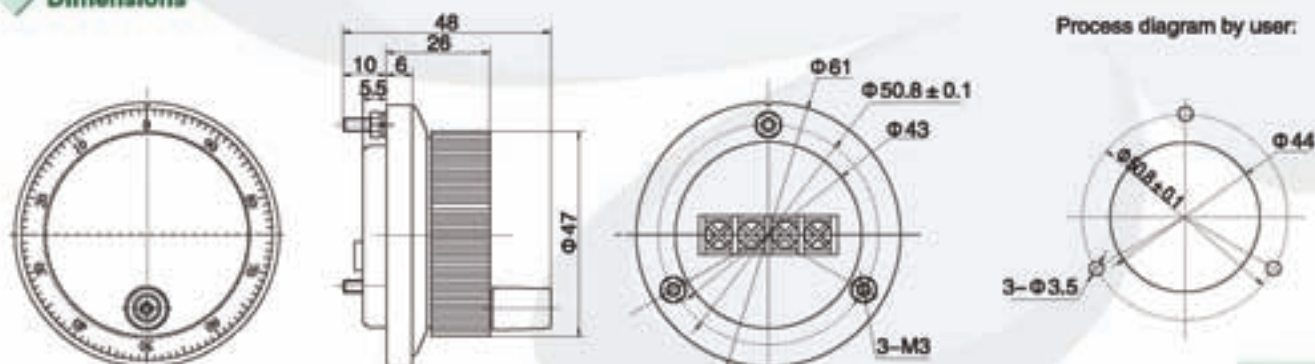
## ➤ Ordering code

ISM6045	—	002	100	B	—	12	E
Series		Sequence Number	Number of Pulses	Output Signals		Supply Voltage	Output Circuit

Series: ISM6045, Number of pulses: 100 p/r, Output signals: AB, Supply voltage: 12V DC, Output circuit: Voltage,

Record: ISM6045-002-100B-12E

## ➤ Dimensions



Process diagram by user:

## ISC3806 SERIES

Shaft diameter  $\Phi 6$  mm or  $\Phi 8$  mm , clamping flange, housing diameter  $\Phi 38$  mm.

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

### Applications:

Measure the distance, stop dog positioning, curtained door, textile machines



## TECHNICAL SPECIFICATIONS

### ELECTRICAL SPECIFICATIONS

Output wave	Square wave
Output signals	A, B, Z, (Line driver output A, A, B, B, Z, Z phase)
Current consumption	$\leq 120\text{mA}$
Response Frequency	0~100KHz
Output phase difference	$90^\circ \pm 45^\circ$
Supply voltage	5V DC, 5-12V DC, 12-24V DC
Signal level	$V_{OH} \geq 85\%V_{CC}$ , $V_{OL} \leq 0.3V$
Number of pulses	10, 15, 20, 30, 40, 50, 60, 100, 120, 125, 150, 180, 200, 240, 250, 256, 300, 360, 400, 480, 500, 512, 600, 720, 740, 800, 900, 960, 1000, 1024, 1200, 1250, 1440, 1500, 1800, 2000, 2048, 2500 (Other number of pulse available on request)
Output circuit	Open collector NPN, Push pull, Line driver, Voltage

### MECHANICAL SPECIFICATIONS

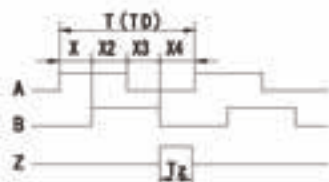
Speed without sealing	5000rpm
Rotor moment of inertia	Appr. $3.5 \times 10^{-4} \text{Kg} \cdot \text{m}^2$
Starting torque without sealing	$\leq 1.5 \times 10^{-4} \text{Nm}$ (+25°C)
Maximum load permitted on shaft	Radial 20N, Axial 10N
Shock resistance	980m/s <sup>2</sup> , 6ms, 2 times each on XYZ
Vibration proof	50m/s <sup>2</sup> , 10~200Hz, 2 hours each on XYZ
Working life	MTBF $\geq 25000\text{h}$ (+25°C, 2000rpm)
Weight	Appr. 130g (with 0.5 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

### 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 A	SIG B	SIG B	SIG Z	SIG Z	Shield
Cable Color	Red	Black	Green	Brown	White	Grey	Yellow	Orange	N.C

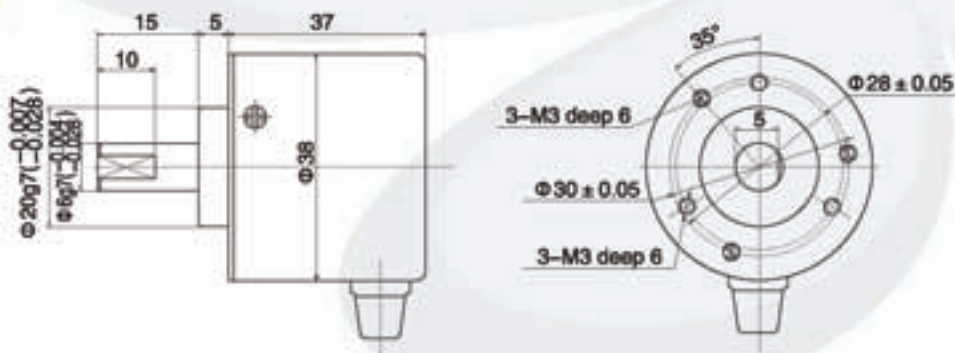
Note: Shield is attached to connector housing. One meter cable lengths (other cable lengths on order).

### Ordering code

ISC3806	—	H03	G	600	BZ3	—	5-12	C
Series		Sequence Number	Connection	Number of Pulses	Output Signals		Supply Voltage	Output Circuit

Series: ISC3806, Radial cable: G, Number of pulses: 600 p/r, Output signals: ABZ,  $T_z = 1/4T$ , Supply voltage: 5-12V DC, Output circuit: Open collector NPN, Record: ISC3806-H03G600BZ3-5-12C

### Dimensions





## ※ IHC3808 SERIES

Blind and hollow shaft encoder, axis inside diameter  $\varnothing 8\text{mm}$ ,  $\varnothing 6\&\varnothing 6.35\text{mm}$ (Option), housing diameter  $\varnothing 38\text{mm}$ .

With flex bracket flange, easy for installing, small volume, light weight, stable output.

### Applications:

Computerized embroidery punching machine, textile machines



## TECHNICAL SPECIFICATIONS

### ELECTRICAL SPECIFICATIONS

Output wave	Square wave
Output signals	A, B, Z, (Line driver output A, A, B, B, Z, Z phase)
Current consumption	$\leq 120\text{mA}$
Response Frequency	0~100KHz
Output phase difference	$90^\circ \pm 45^\circ$
Supply voltage	5V DC, 5-12V DC, 12-24V DC
Signal level	$V_{OH} \geq 85\%V_{CC}$ , $V_{OL} \leq 0.3V$
Number of pulses	100, 120, 125, 150, 180, 200, 240, 250, 300, 360, 400, 500, 600, 720, 800, 900, 960, 1000, 1024, 1200, 1250, 1440, 1500, 1800, 2000, 2048, 2500 (Other number of pulse available on request)
Output circuit	Open collector NPN, Push pull, Line driver, Voltage

### MECHANICAL SPECIFICATIONS

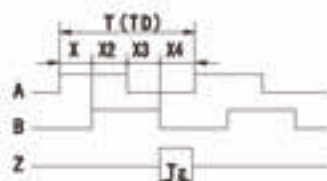
Speed without sealing	4500rpm
Rotor moment of inertia	Appr. $3.5 \times 10^{-4} \text{Kg} \cdot \text{m}^2$
Starting torque without sealing	$\leq 5.0 \times 10^{-4} \text{Nm}$ (+25°C)
Maximum load permitted on shaft	Radial 20N, Axial 10N
Shock resistance	980m/s <sup>2</sup> , 6ms, 2 times each on XYZ
Vibration proof	50m/s <sup>2</sup> , 10~200Hz, 2 hours each on XYZ
Working life	MTBF $\geq 25000\text{h}$ (+25°C, 2000rpm)
Weight	Appr. 140g (with 1 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

## Output waveform

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



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

$$X_1 + X_2 = 1/2T \pm 1/12T$$

Pitch error of period:  $\pm 0.01T$

Pitch error of phase position:  $\leq 1/16T$

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 A	SIG B	SIG B	SIG Z	SIG Z	Shield
Cable Color	Red	Black	Green	Brown	White	Grey	Yellow	Orange	N.C

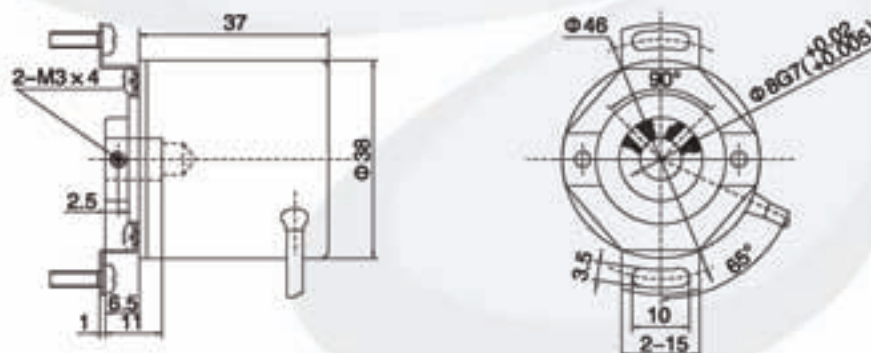
Note: Shield is attached to connector housing, One meter cable lengths (other cable lengths on order).

## Ordering code

IHC3808	—	401	G	600	BZ1	—	12-24	C
Series		Sequence Number	Connection	Number of Pulses	Output Signals		Supply Voltage	Output Circuit

Series: IHC3808, Radial cable: G, Number of pulses: 600 p/r, Output signals: ABZ,  $T_z = 1T$ , Supply voltage: 12-24V DC, Output circuit: Open collector NPN, Record: IHC3808-401G600BZ1-12-24C

## Dimensions



## ※ IHA6012 SERIES

Hollow shaft encoder, axis inside diameter  $\phi 12$  mm, ( $\phi 6$  mm,  $\phi 6.35$  mm,  $\phi 8$  mm,  $\phi 10$  mm on order), housing diameter  $\phi 60$  mm.

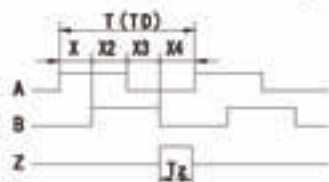
With flex bracket flange, easy for installing, light weight, stable output.

### Applications:

Computer numerical control tooling machines

### 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 A	SIG B	SIG B	SIG Z	SIG Z	Shield
Cable Color	Red	Black	Green	Brown	White	Grey	Yellow	Orange	N.C

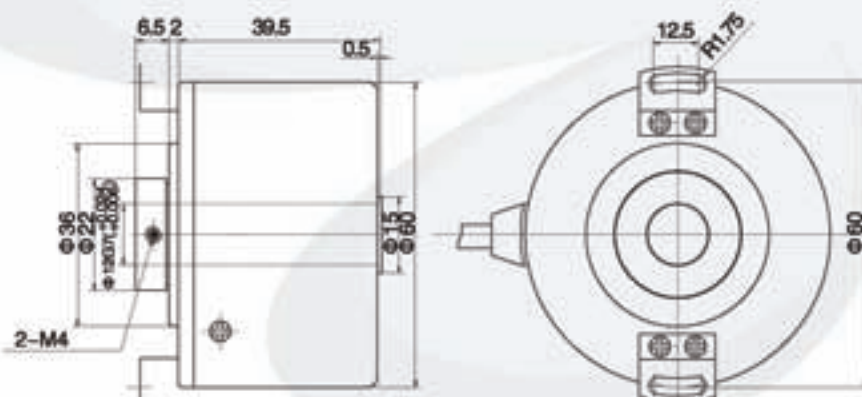
Note: Shield is attached to connector housing, One meter cable lengths (other cable lengths on order).

### Ordering code

IHA6012	—	401	G	1024	BZ1	—	5	L
Series		Sequence Number	Connection	Number of Pulses	Output Signals		Supply Voltage	Output Circuit

Series: IHA6012, Radial cable: G, Number of pulses: 1024 p/r, Output signals: ABZ,  $T_z=1T$ , Supply voltage: 5V DC, Output circuit: Line driver, Record: IHA6012-401G1024BZ1-5L

### Dimensions



### TECHNICAL SPECIFICATIONS

ELECTRICAL SPECIFICATIONS	
Output wave	Square wave
Output signals	A, B, Z, (Line driver output A, A, B, B, Z, Z phase)
Current consumption	$\leq 150$ 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	$V_{in} \geq 85\%V_{cc}$ , $V_{out} \leq 0.3V$
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	6000rpm
Rotor moment of inertia	Appr. $4.0 \times 10^{-4} \text{ Kg} \cdot \text{m}^2$
Starting torque without sealing	$\leq 2.5 \times 10^{-4} \text{ Nm}$ (+25°C)
Maximum load permitted on shaft	Radial 20N, Axial 10N
Shock resistance	980m/s <sup>2</sup> , 6ms, 2 times each on XYZ
Vibration proof	50m/s <sup>2</sup> , 10~200Hz, 2 hours each on XYZ
Working life	MTBF $\geq 10000$ h (+25°C, 2000rpm)
Weight	Appr. 250g (with 1 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



## ※ ISM8060 SERIES

Suitable for manual pulse input type such as NC or milling machinery

High reliability, terminal connection type

Power supply: 5V DC, 12V DC, 24V DC

Customer's logo is available

### Application:

Industrial tooling machinery



## TECHNICAL SPECIFICATIONS

### ELECTRICAL SPECIFICATIONS

Output wave	Square wave
Output signals	A, B (Line driver output A, A, B, B phase)
Current consumption	≤ 100mA
Response Frequency	0~20KHz
Output phase difference	90° ± 45°
Supply voltage	5V DC, 12V DC
Signal level	$V_H \geq 85\%V_{CC}$ , $V_L \leq 0.3V$
Number of pulses	100 (Other number of pulse available on request)
Output circuit	Open collector NPN, Push pull, Line driver, Voltage

### MECHANICAL SPECIFICATIONS

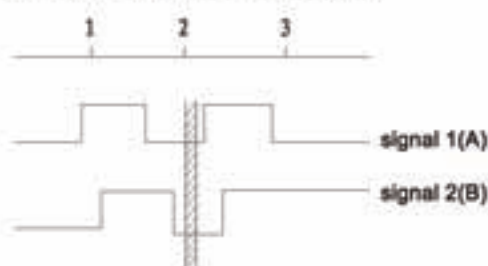
Signal position	4 kind
Speed without sealing	500rpm
Starting torque without sealing	≤ 1.0 × 10 <sup>-4</sup> Nm (+25°C)
Shock resistance	960m/s <sup>2</sup> , 6ms, 2 times each on XYZ
Vibration proof	50m/s <sup>2</sup> , 10~200Hz, 2 hours each on XYZ
Working life	MTBF ≥ 10000h (+25°C, 2000rpm)
Weight	Appr. 275g

### ENVIRONMENTAL SPECIFICATIONS

Working humidity	30~85% (No condensation)
Storage temperature	-30°C~85°C
Working temperature	-10°C~70°C
Protection class	IP54

### Output waveform

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



A leads B clockwise when viewing the encoder shaft end.  
Click-stop position falls within hatched area.

### Terminal assignment

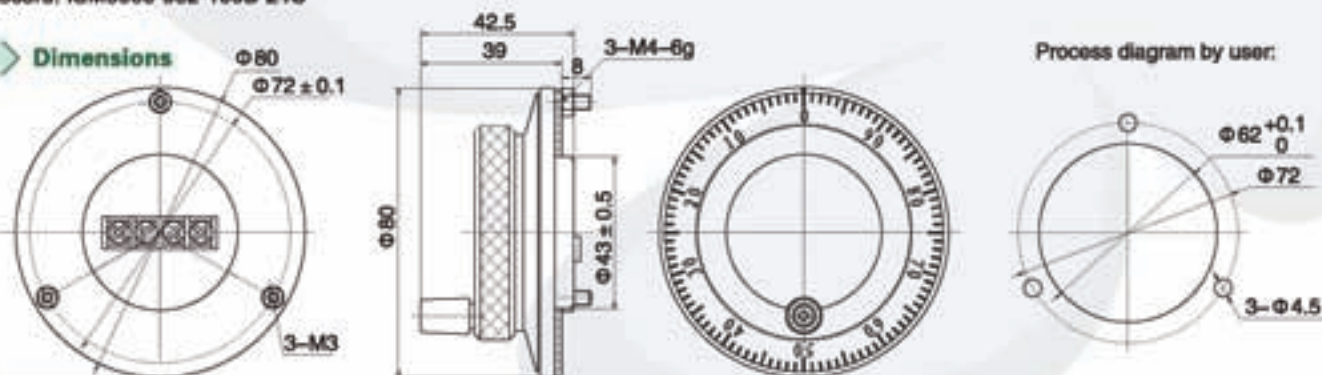
Code	1	2	3	4	5	6
Line driver output	+5V	0V	SIG A	SIG A	SIG B	SIG B
Other Output circuit	+5V	0V	SIG A	SIG B	-	-

### Ordering code

ISM8060	002	100	B	24	C
Series	Sequence Number	Number of Pulses	Output Signals	Supply Voltage	Output Circuit

Series: ISM8060, Number of pulses: 100 p/r, Output signals: AB, Supply voltage: 24V DC, Output circuit: Open collector NPN,  
Record: ISM8060-002-100B-24C

### Dimensions



# ※ ISMM2080, ISMM1468 SERIES

Suitable for manual pulse input type such as NC or milling machinery

High reliability, terminal connection type

Power supply: 5V DC, 12V DC

Customer's logo is available

## Application:

Industrial tooling machinery



ISMM2080



ISMM1468

## TECHNICAL SPECIFICATIONS

### ELECTRICAL SPECIFICATIONS

Output wave	Square wave
Output signals	A, B (Line driver output A, A, B, B phase)
Current consumption	≤ 100mA
Response Frequency	0~20KHz
Output phase difference	90° ± 45°
Supply voltage	5V DC, 12V DC
Signal level	$V_{in} \geq 85\%V_{CC}$ , $V_{L} \leq 0.3V$
Number of pulses	100 (Other number of pulse available on request)
Output circuit	Open collector NPN, Push pull, Line driver, Voltage

### MECHANICAL SPECIFICATIONS

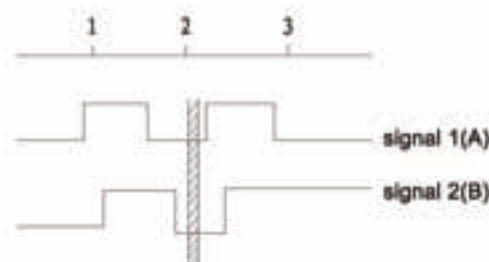
Signal position	2 kind
Speed without sealing	500rpm
Starting torque without sealing	$2.0 \times 10^{-4} \sim 6.0 \times 10^{-4} \text{Nm}$ (+25°C)
Shock resistance	980m/s <sup>2</sup> , 6ms, 2 times each on XYZ
Vibration proof	50m/s <sup>2</sup> , 10~200Hz, 2 hours each on XYZ
Working life	MTBF ≥ 10000h (+25°C, 2000rpm)
Weight	Appr. 740g

### ENVIRONMENTAL SPECIFICATIONS

Working humidity	30~85% (No condensation)
Storage temperature	-30°C~85°C
Working temperature	-10°C~70°C
Protection class	IP54

## Output waveform

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



A leads B clockwise when viewing the encoder shaft end.  
Click-stop position falls within hatched area.

## Terminal assignment

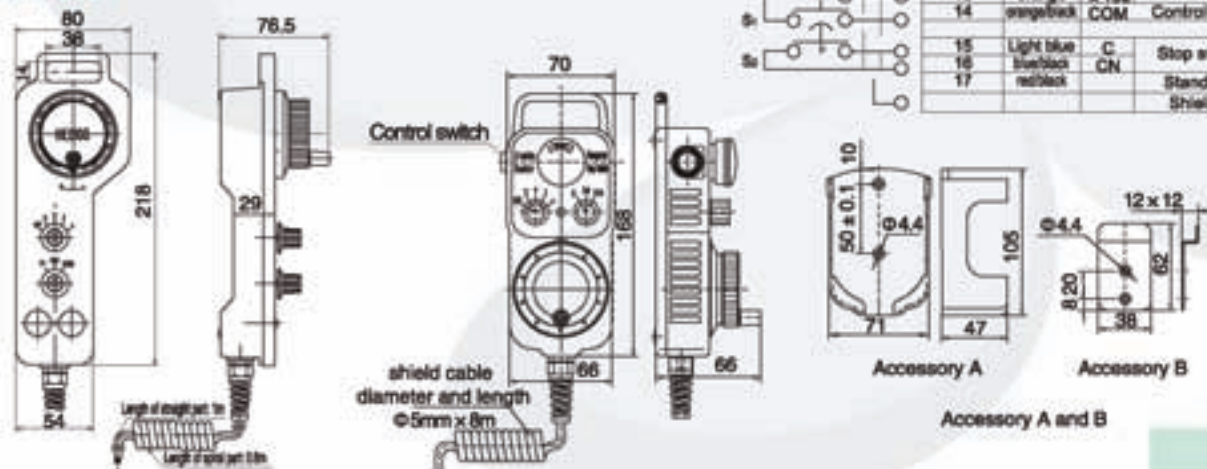
ELECTRICAL SPENIFICATIONS OF SELECTION SWITCH			
Switch load	0.4VA	Max. voltage	25V
Circuit width	0.1-50mA		
ELECTRICAL SPENIFICATIONS OF CONTROL SWITCH			
Connection Point	AC Max. load	AC220V 0.5A	
	DC Max. load	DC24V 1A	
ELECTRICAL SPENIFICATIONS OF STOP SWITCH			
Connection Point	AC Max. load	AC220V 0.5A	
	DC Max. load	DC30V 1A	

## Ordering code

ISMM1468	—	001	100	B	—	5	L
Series		Sequence Number	Number of Pulses	Output Signals		Supply Voltage	Output Circuit

Series: ISMM1468, Number of pulses: 100 p/r, Output signals: AB, Supply voltage: 5V DC, Output circuit: Line driver, Record: ISMM1468-001-100B-5L

## Dimensions

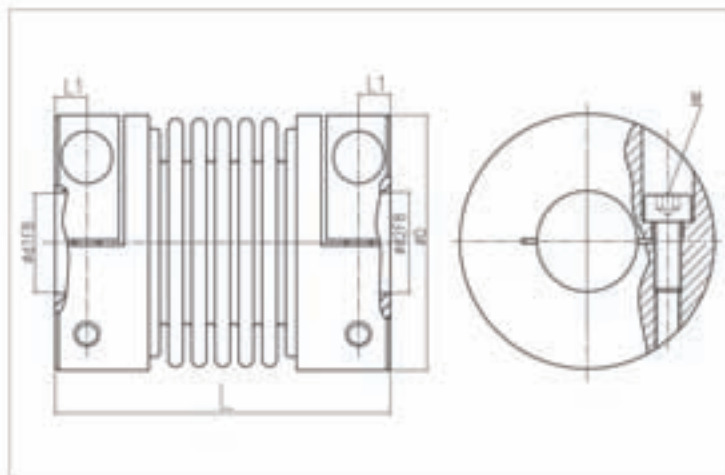


Item	Wire color	Signal	Note
1	red	+5V	Manual encoder
2	black	0V	
3	green	A	
4	white	B	
3*	purple	A	
4*	green/black	B	
5	green/black	+	Indicator lamp
6	white/black	-	
7	yellow	OFF	Select axis
8	yellow/black	X	
9	brown	Y	
10	brown/black	Z	
9*	pink	4	When select the 5th, 6th axis
10*	pink/black	5	
11	gray	x1	Select multiple
12	gray/black	x10	
13	orange	x100	
14	orange/black	COM	Control switch
15	Light blue	C	Stop switch
16	blue/black	CN	Standby
17	red/black		Shield



# BB系列 弹性联轴器

## BB series flexible coupling



### BB系列弹性联轴器(经济型)说明

### Instructions of BB series flexible coupling (inexpensive type)

此款BB联轴器利用沉头螺栓拧紧的力量来使狭缝收缩，而将轴心紧紧夹持住。固定和拆卸方便，而且不会造成轴心的损坏。

BB series coupling use setscrews to hold the axis. It is convenient to assemble and disassemble, and no damage will be caused to the shaft.

经济型BB弹性联轴器适合于中小扭矩、中小空间场合使用。您可以根据您的需要来选择所需产品。  
(特殊孔径和键槽均可按需求加工)

BB series flexible coupling can be used for little torque & space. Specification on request.  
(Special bore size and slot available on request)

### BB系列说明

### Instructions

BB系列最大的特点是利用胀套联接，零回转间隙、拆装方便。此外，其抱紧方式稳定、牢固。

BB series join with locking assembly, zero backlash, convenient to assemble and disassemble.

BB系列轴套材料为：硬质铝合金

Body material: Hard Aluminum alloy

中间体材料为：全不锈钢波纹管

Sleeve material: Stainless steel bellows

项目类型 Item type	d1 Bore	d2 Bore	D	L	L1	M	额定扭矩 Rated Torque (N.m)	最大扭矩 Max. Torque	偏心误差 eccentricity error	轴角偏角 Shaft angel	最高转速 Max. Rotational (rpm)	运转 Rated
BB	5-12	5-12	23	32	3	M3	2N.m	4N.m	±0.5mm	≤2°	8800	同步运转 In-phase operate
	5-18	5-18	38	50	5	M4	6N.m	12N.m	±0.5mm	≤2°	7200	
可根据客户要求加工定制							Can be produced on client's request					

(定货范例 ordering example) BB-15×15-D38L50

(用户端孔径 bore size on user's end) d1

(联轴器总长 total length of the coupling) L

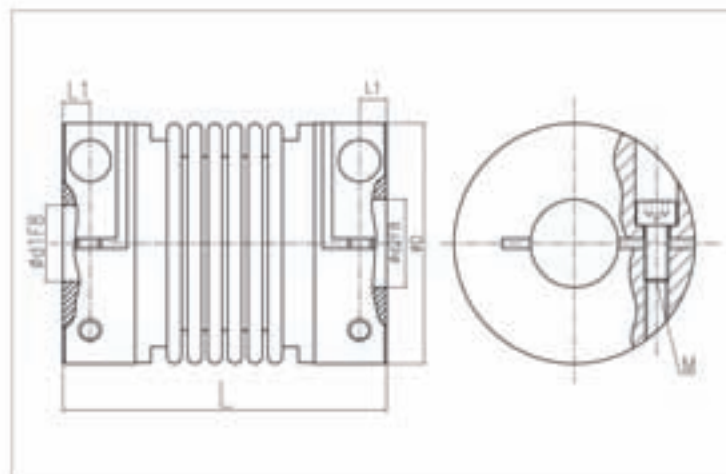
(用户端孔径 bore size on user's end) d2

(联轴器最大外径 Max. housing diameter of coupling) D

### BB适用 For BB series

改变项 (Alternative item)	代号 Code name	指定 Appointment	元/批 RMB/batch
	d1、 d2	客户需要的孔径 bore size on client's request	另行报价 special quote

**BB1系列 弹性联轴器**  
BB1series flexible coupling



**BB1系列弹性联轴器特点**

**Features of BB1 series flexible coupling**

- |                                      |  |
|--------------------------------------|--|
| 1、波纹管型弹性联轴器，适合大扭矩场合应用                | Bellow type flexible coupling for big torque   |
| 2、高扭矩刚性、低惯性和卓越的灵敏度                   | High torque capacity, low inertia and excellent response   |
| 3、零回转变隙                              | Zero backlash  |
| 4、弹性波纹管结构补偿径向、角向和轴向偏差                | Spring action bellows configuration absorbs parallel, angular misalignments and shaft end-play       |
| 5、偏差存在的情况下也可保持等速度运作                  | Smooth operate when misalignments occur  |
| 6、顺时针和逆时针回转特性完全相同                    | Identical clockwise and anticlockwise rotation characteristics                                       |
| 7、两端不同孔径大小的产品型号也备有库存（特殊孔径和键槽均可按需求加工） | Stock for different bore size on 2 sides available (Special bore size and slot available on request) |

BB1系列轴套材料为：硬质铝合金

Body Material: Aluminum Alloy

中间体材料为：全不锈钢波纹管

Sleeve material: Stainless steel bellows

项目类型 item type	d1 Bore	d2 Bore	D	L	L1	M	额定扭矩 Rated Torque (N.m)	最大扭矩 Max. Torque	偏心误差 eccentricity error	轴角偏角 Shaft angel	最高转速 Max. Rotational (rpm)	运转 Rated
BB1	14-22	14-22	50	70	6.8	M6	35N.m	70N.m	±0.25mm	≤2.5°	4800	同步运转 In-phase operate
	15-26	15-26	60	71	6.8	M6	55N.m	110N.m	±0.25mm	≤2.5°	3500	
	15-26	15-26	60	81	6.8	M6	55N.m	110N.m	±0.25mm	≤2.5°	3500	
	15-26	15-26	60	91	6.8	M6	55N.m	110N.m	±0.25mm	≤2.5°	3500	

可根据客户要求加工定制

Can be produced on client's request

(定货范例 ordering example) BB1-15×15-D50L70

(用户端孔径 bore size on user's end) d1

(联轴器总长 total length of the coupling) L

(用户端孔径 bore size on user's end) d2

(联轴器最大外径 Max. housing diameter of coupling) D

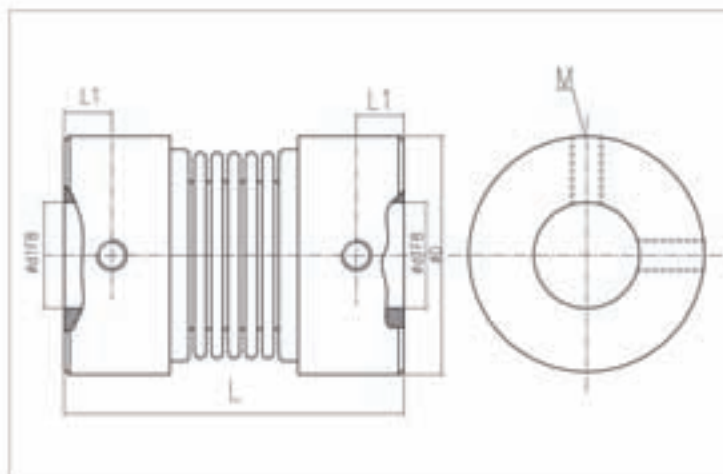
**BB1适用 For BB1 series**

改变项 (Alternative item)	代号 Code name	指定 On request	元/批 RMB/batch
	d1. d2	客户需要的孔径 bore size on client's request	另行报价 special quote



# DB系列 弹性联轴器

## DBseries flexible coupling



### DB系列弹性联轴器说明

### Instructions of DB series flexible coupling

1. 此款DB联轴器采用紧固螺栓的方式来使轴心固定，这是一种最传统、成本最低的固定方式。但是，螺栓的前端与轴心直接接触，可能会造成轴心的损伤或拆卸困难。

DB series flexible coupling use setscrews to hold the axis, this is a low-cost type features the most conventional attachment. However, the point of setscrew may cause damage to the shaft and may be difficult to remove.

2. DB弹性联轴器适合于小扭矩、小空间场合使用。您可以根据您的需要来选择所需产品。  
(特殊孔径和键槽均可按需求加工)

DB series flexible coupling can be used for little torque & space. Specification on request.  
(Special bore size and slot available on request)

DB系列轴套材料为：硬质铝合金  
中间体材料为：全不锈钢波纹管

Body Material: Aluminum Alloy

Sleeve material: Stainless steel bellows

### 安装注意事项

### Notes to assemble

1. 安装时确保动力电源已断开 Make sure the power is off when assemble
2. 安装前或安装过程中应避免钢制波纹管受损坏 Avoid any damage to stainless bellows before and in assemble
3. 安装过程中要保证波纹管与夹紧环和两端轴充分接触 Plenty contact between bellows and clamp when assemble.
4. 两端轴对中误差不能超过允许发偏移量 Parallel misalignment can not be bigger than offset value

项目类型 Item type	d1 Bore	d2 Bore	D	L	L1	M	额定扭矩 Rated Torque (N.m)	最大扭矩 Max. Torque	偏心误差 eccentricity error	轴角偏角 Shaft angel	最高转速 Max. Rotational (rpm)	运转 Rated
DB	4-10	4-10	20	27	3.5	M4	2N.m	4N.m	±0.25mm	≤2°	20000	同步运转 In-phase operate
	4-12	4-12	20	30	3.5	M4	2N.m	4N.m	±0.25mm	≤2°	20000	
	5-14	5-14	23	32	4.5	M4	2N.m	4N.m	±0.25mm	≤2°	18000	
	5-22	5-22	38	50	5	M5	6N.m	12N.m	±0.25mm	≤2°	10000	

可根据客户要求加工定制

Can be produced on client's request

(定货范例 ordering example) DB-15×15-D38L60

(用户端孔径 bore size on user's end) d1

(用户端孔径 bore size on user's end) d2

(联轴器总长 total length of the coupling) L

(联轴器最大外径 Max. housing diameter of coupling) D

### DB适用 For DB series

改变项 (Alternative item)	代号 Code name	指定 On request	元/批 RMB/batch
	d1. d2	客户需要的孔径 bore size on client's request	另行报价 special quote