SWS Bearings LTD
High Quality Bearing Manufacturer



Motor Encoder Unit





SWS Bearings LTD

-Your Reliable Bearings Factory-

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SWS Bearings Limited is one of the most reliable bearings factories and exporters in China. We mainly supply roller and ball bearings.

SWS was founded in 2007, located in Changzhou city,jian Province

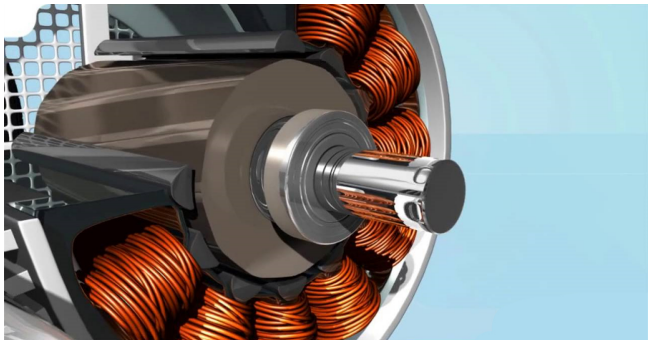
It just takes around 2 hours from Changzhou to Shanghai by car, and v convenient transportation.

SWS has invested three factories in Shandong and Dalian city.

Our products sell worldwide.

Our products and service include:

- Miniature and middle-large size deep groove ball bearing
- Double-row self-aligning roller bearing
- Four-row heavy type cylindrical roller bearing
- Self-aligning roller bearing
- Axial thrust ball bearing, thrust ball and roller bearing
- Needle roller bearing
- High precision spindle bearing
- Pillow block bearing, bush, steel balls
- Technical support
- Maintenance
- Products training



Bore size range:3mm~6.5m

Weight range:10.5g~2.6ton

SWS bearings are widely used in railway, mining, mechanical equipment, automobile, ship, metallurgy, petrifaction, electric power, agriculture, textile and aviation, etc.

SWS products have sell to Europe, Asia, America, south-east Asia, which are our most important market. We have spent much time on developing new products, and also produce top quality products. We are very popular in domestic and abroad.

Welcome your inquiry and Look forward our cooperation in the future.

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Motor Encoder Unit

Suited for most AC induction motors, the Motor Encoder Unit is available in a range of sizes for shaft diameters from 15 to 45 mm, with a free cable end or connector that best fits your application.

The solution

Encoders are required where the speed and/or direction of rotation of AC induction motors is to be continuously monitored.

Conventional encoders are typically mounted external to the motor, exposed to the envi-ronmental conditions, which often has a significant impact on encoder service life.

The Motor Encoder Unit, however, combines encoder and bearing functions. These units, which can be installed at either bearing position in an AC induction motor, are only 6,2 mm wider than the corre-sponding standard deep groove ball bearing.

A Motor Encoder Unit produces 2 signals, at 90 degree phase shift each with resolution ranging from 32 to 80 digital pulses per revolution, depending on the unit size.

Designs and variants

The Motor Encoder Unit is a compact, integrated unit consisting of:

·A pre-lubricated Explorer deep groove ball bearing in the 62 series with a snap ring groove in the outer ring and an RS1 contact seal

·An impulse ring

·A sensor body

·A cable outlet and connecting cable

The impulse ring, which attaches to the inner ring of the bearing, is a composite magnetized ring that contains between 32 and 80 north and south poles. The sensor body, which is attached to the outer ring, protects the pat-ented effect cells. The multiwire con-necting cable extends in the radial direction.

The bearing is protected by a contact seal on one side. On the opposite side of the bearing, the impulse ring and sensor body create an effective labyrinth seal to keep l ubricant in and solid contaminants out of the bearing.

Features

·Bearing and sensors integrated into a single unit

·Enables monitoring of speed and direction of the shaft

·Accurately detects speeds from 0 to 13 000 r/min depending on limiting speed of bearing

·Wide range of cable length and connectors available

Benefits

·Compact and ready-to-mount

·Reduced number of components

·Designed to be robust and reliable

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Factory



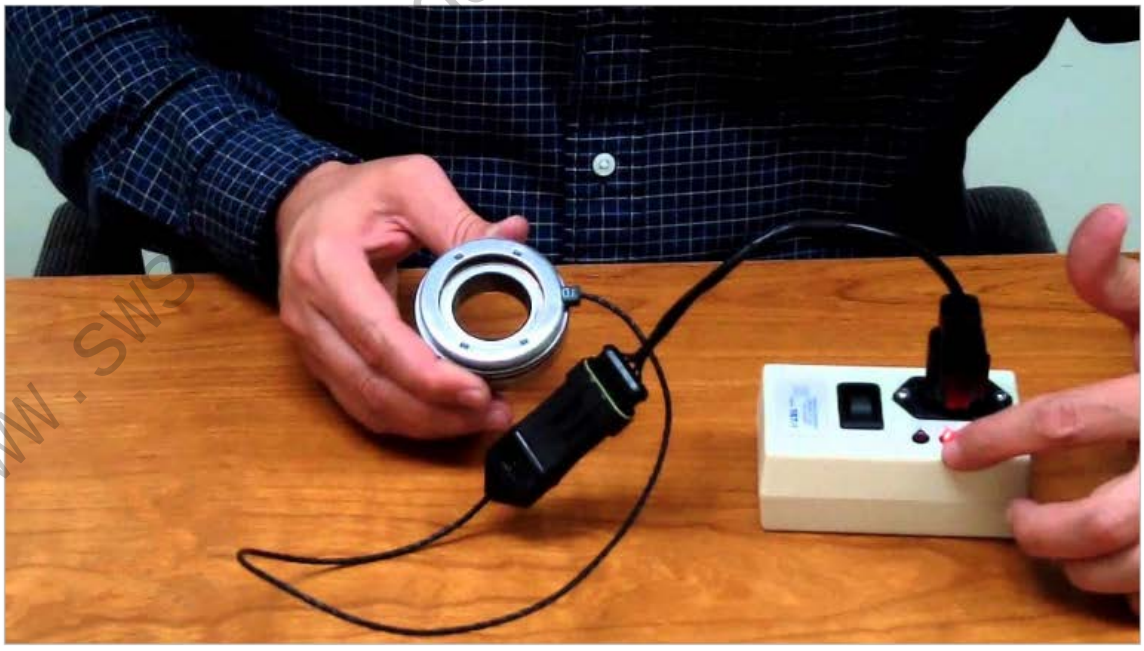
Office



Display



Display



Display

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SWS Bearings LTD
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Inspection and Test


Projection measuring instrument


Roundness


Profiler


Life testing machine


Left digital hardness tester,the right of the microspoce


Left measuring roundness,contour,
The right of the measured rougsured,convexity

Packaging & Shipping









SHIPMENT ➡ PACKAGING ➡ TRUCK LOADING

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High-performance filtering

All standard Motor Encoder Units are protected with high-performance filtering, so they can adapt to the electric environment typically found in industrial and automotive applications.

Sensor technology

The Motor Encoder Unit uses compact and robust sensors that produce an incre-mental encoder signal. The sensors are accurate down to zero r/min. An integrated active circuit (requiring an external voltage supply) in the sensor body contains two Hall effect cells that produce an output signal consisting of two square waves.

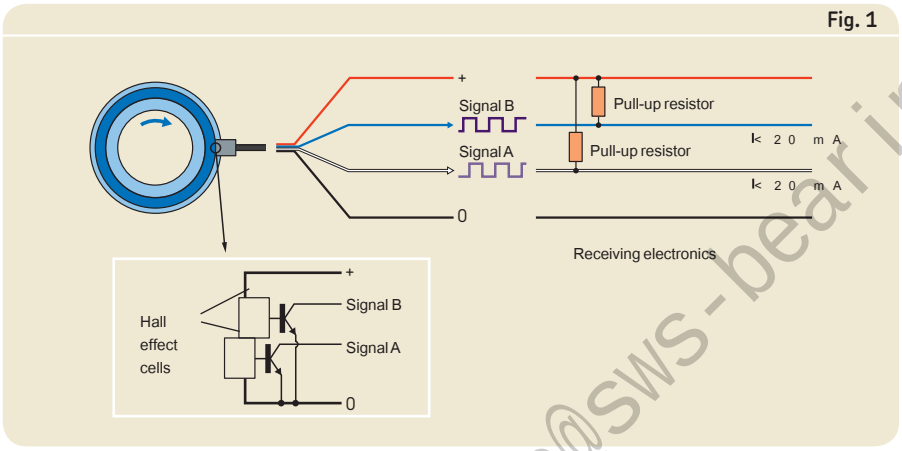
Requirements for the receiving interface

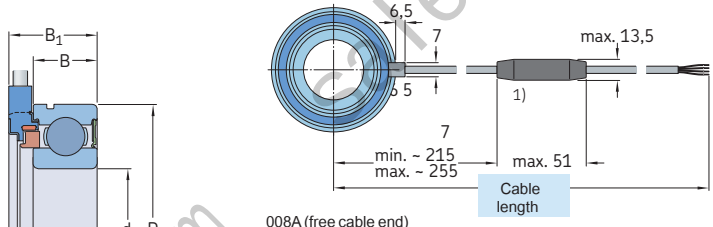
The receiving interface must be able to process the signals, which are provided via open collector circuits. A typical schematic drawing is shown in fig. 1.

Resistors

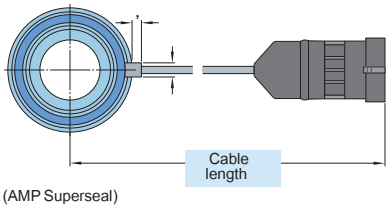
Pull-up resistors should be placed between the voltage supply and the conductors for the output signals to limit the output current to 20 mA. Recommended pull-up resistors for typical voltage supply values are listed in table 1.

Fig. 1





008A (free cable end)



108A (AMP Superseal)

Table 1

Recommended pull-up resistors

Voltage supply	Resistance min.	Power
V DC	W	W
5	270	0,25
9	470	0,25
12	680	0,25
18	1 000	0,25

Bearing								Sensor unit				Mass	Designation
Principal dimensions				Basic load ratings dynamic	static	Fatigue load limit	Limiting speed	No. of pulses	Period accuracy	Phase shift	Cable length ±10[2]		
d	D	B	B_1	C	C_0	P_u							
mm				kN		kN	r/min	–	%	°	mm	kg	–
15	35	11	17,2	7,8	3,75	0,16	13 000	32	±3	90 ±30	525	0,07	**BMB-6202/032S2/UB008A**
	35	11	17,2	7,8	3,75	0,16	13 000	32	±3	90 ±30	550	0,08	**BMB-6202/032S2/UB108A**
20	47	14	20,2	12,7	6,55	0,28	10 000	48	±4	90 ±20	535	0,13	**BMO-6204/048S2/UA008A**
	47	14	20,2	12,7	6,55	0,28	10 000	48	±4	90 ±20	560	0,15	**BMO-6204/048S2/UA108A**
25	52	15	21,2	14	7,8	0,335	8 500	48	±3	90 ±30	535	0,16	**BMO-6205/048S2/UA008A**
	52	15	21,2	14	7,8	0,335	8 500	48	±3	90 ±30	560	0,17	**BMO-6205/048S2/UA108A**
30	62	16	22,2	19,5	11,2	0,475	7 500	64	±4	90 ±20	540	0,24	**BMD-6206/064S2/UA008A**[3]
	62	16	22,2	19,5	11,2	0,475	7 500	64	±4	90 ±20	565	0,25	**BMD-6206/064S2/UA108A**
40	80	18	24,2	30,7	19	0,8	5 600	80	±5	90 ±30	546	0,46	**BMB-6208/080S2/UB008A**
	80	18	24,2	30,7	19	0,8	5 600	80	±5	90 ±30	570	0,46	**BMB-6208/080S2/UB108A**
			,2	33,2	21,6	0,915	5 000	80	±5	90 ±30	545	0,53	**BMB-6209/080S2/UB008A**
			,2	33,2	21,6	0,915	5 000	80	±5	90 ±30	570	0,54	**BMB-6209/080S2/UB108A**

ı this illustration are not valid for the new BMD as this product is only available without a dongle
d connectors available on request
ıd without a dongle on the cable

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