



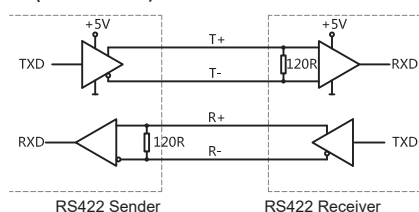
JSDS50 Series	
Sensing method	Optical
Housing size	Φ50 mm
Shaft diameter	Solid shaft Φ6、Φ8mm Blind hollow shaft Φ6、Φ8、Φ10mm
Measurement range	0~360°
Max. resolution	65536 (16 bit)
Supply voltage	5VDC, 10-30VDC
Protection	IP54/IP65

Mechanical characteristics

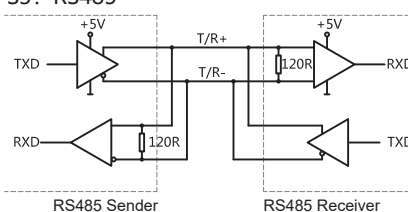
Shaft diameter	Φ6、Φ8、Φ10mm (Blind hollow shaft) ;Φ6、Φ8mm (Solid shaft)
Protection	IP54/IP65
Materials	Flange : Aluminum alloy Housing: Tensile iron shell +Black painted
Starting torque	≤0.01Nm
Shaft loading	max. 30 N Axialmax. 60 N Radial
Bearing life	10 ⁹ turns
Speed	max. 6000min
Rotor moment of inertia	approx. 1.8×10 ⁻⁶ kgm ²
Shock resistance	100g, 6ms
Vibration resistance	10g, 10...2000Hz
Working temperature	-40 C...+80 C
Storage temperature	-40 C...+80 C
Weight	Approx. 300g
Exit position	Radial

Electrical characteristics

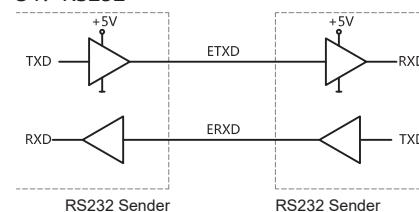
S2\S1: RS422/SSI



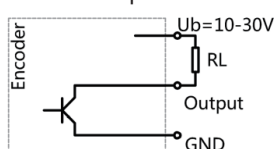
S3: RS485



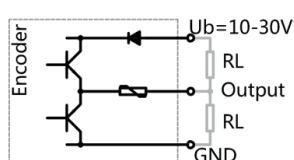
S4: RS232



P2: NPN Open Collector



P5: Push-Pull



Interface	Serial: SSI、RS422、RS485、RS232 Parallel: Push-pull、NPN Open Collector	Optional
Resolution	max. 16bit (65536) Optional (ST≤16 bit)	
Code	Binary Gray	Optional
Supply voltage	5V、10-30V	Optional
Power consumption(no load)	max. 200mA	

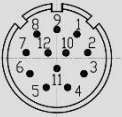
Refresh time	100Hz (9600bps) 200Hz (19.2Kbps) 400Hz (57.6Kbps) 500Hz (115.2Kbps)	Factory preset
Transfer rate	≤250K bit/s (SSI)	
Monoflop time	20±10µs (SSI)	
Output signal voltage	High: operating voltage minus voltage drop ; Low: ≤2.8V (Parallel)	
Input current	<6mA (Parallel)	
Absolute accuracy	±40" (16bit)	
Counting direction	Clockwise, increasing	Factory preset

Terminal assignment

(1) RS485/RS232 Wiring Guide

Signal		GND	+Ub	TXD+	TXD-	Function 1	Function 2	Function 3	Function 4
Colour		WH	BN	YE	GN	GY	PK	RD	BK

(2) SSI/RS422 Wiring Guide

Signal		GND	+Ub	CLK+	CLK-	DATA+	DATA-	Reserved	V/R	PRESET1	Reserved	Reserved	Reserved
Colour		WH	BN	GN	YE	GY	PK		RD	BK			
Flange Connector M23, 12-pir (9223)		1	2	3	4	5	6	7	8	9	10	11	12

(3) Parallel Wiring Guide

Signal		GND	+Ub	Bit0	Bit1	Bit2	Bit3	Bit4	Bit5	Bit6	Bit7
Colour		WH	BN	GN	YE	GY	PK	BU	RD	BK	PE
Signal		Bit8	Bit9	Bit10	Bit11	Bit12	Bit13	Latch	V/R	SET	
Colour		WH/GN	BN/GN	WH/YE	BN/YE	WH/GY	BN/GY	YE/BK	RD/BU	GN/BU	

Ordering information

JSDS50	XX	B	10	B	16	Y	C	S3	1	B	N	10-30	R	0.5	/	XXXX
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮		
① Extended No. XX	② Shaft type S: Solid shaft B: Blind hollow shaft	③Shaft diameter 6: Φ6mm 8: Φ8mm 10: Φ10mm (Blind hollow shaft)	④Output Code B: Bi nary G : Gray	⑤Resolution ^{ST 1)} 12: 4096 13: 8192 14: 16384 15: 32768 16: 65536	⑥Counting direction Empty: Clockwise,increasing Y: Counterclockwise,increasing O: Counting direction setting(electric) E: Counting direction setting(order)	⑦Zero setting options Empty:no C: Zero setting(electric) K: Zero setting(key) F: Zero setting(order)	⑧Parallel interface P2:NPN Open Collector P5:Push-Pull	Serial interface ³⁾ S1: SSI S2: RS422 S3: RS485 S4: RS232	⑨Baud rate(S2-S4) 1:115200 2: 57600 3: 38400 4: 19200 5: 9600	⑩Communication mode B: Timer mode(S2-S4) T: Answer mode(S1、 S4)	⑪Output logic(Parallel) Empty:Positive logic N:Negative logic	⑫ Supply voltage 5 : 5V 10-30: 10-30V	⑬ Exit position R: Radial C: Axial	⑭Connection type ²⁾ Figure: Cable length(m)	⑮ Special code XXXX	

Note: Printed in bold=standard items

Notes: 1, ¹⁾ Resolution available at a short notice (12bit,13bit,14bit,15bit,16bit) , other resolution on request.

2, ²⁾ While supply voltage is 5V DC, cable length≤8m.

3, ³⁾ If SSI is used as output interface, the maximum clock frequency will reach 250K bit/s (125K bit/s is recommended) , with answer communication mode.

4, Please chose the ordering information: Extended No., Shaft diameter, Output code, Singleturn resolution, Counting direction, Zero setting options, Output interface, Baud rate, Communication mode, Supply voltage, Exit position and Cable length.

5, Please contact us for further electrical parameter Settings and requirements.

Ordering example: JSDS50B10B14S1T10-30R2, Counting direction of the factory is set to clockwise increasing.

Explanation: JSDS50B Series, Shaft diameter 10mm, Output Binary, Singleturn resolution 14 bit, Clockwise, increasing, SSI Serial interface, Answer mode, DC 10-30V, Radial Output 2m.

Accessories (sold separately)

Note: Further stator coupling can be found in the accessories selection table.

Coupling

Model (common) : 8212B 8-8

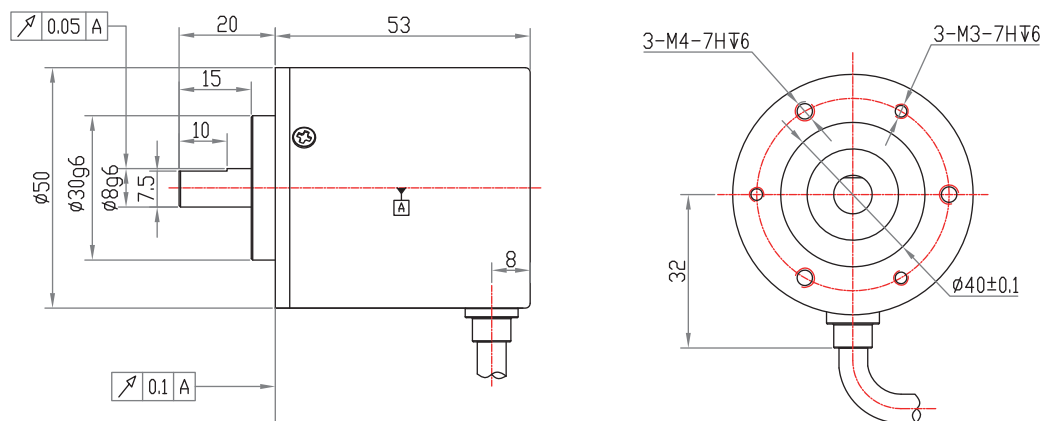
Stator coupling, double-winged

Model (common) : 8162

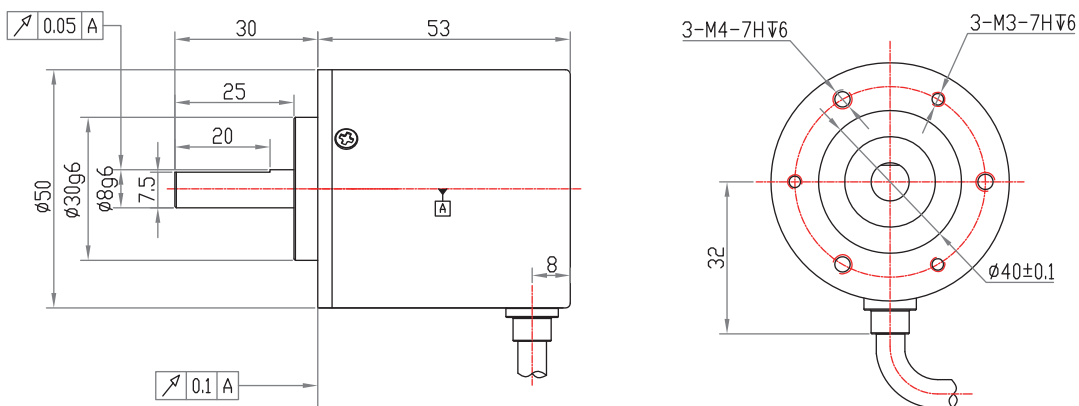


Dimensions

JSDS50S



JSDS5001S



JSDS50B

