

CE RoHS ISO9001



ENCODER BROCHURE



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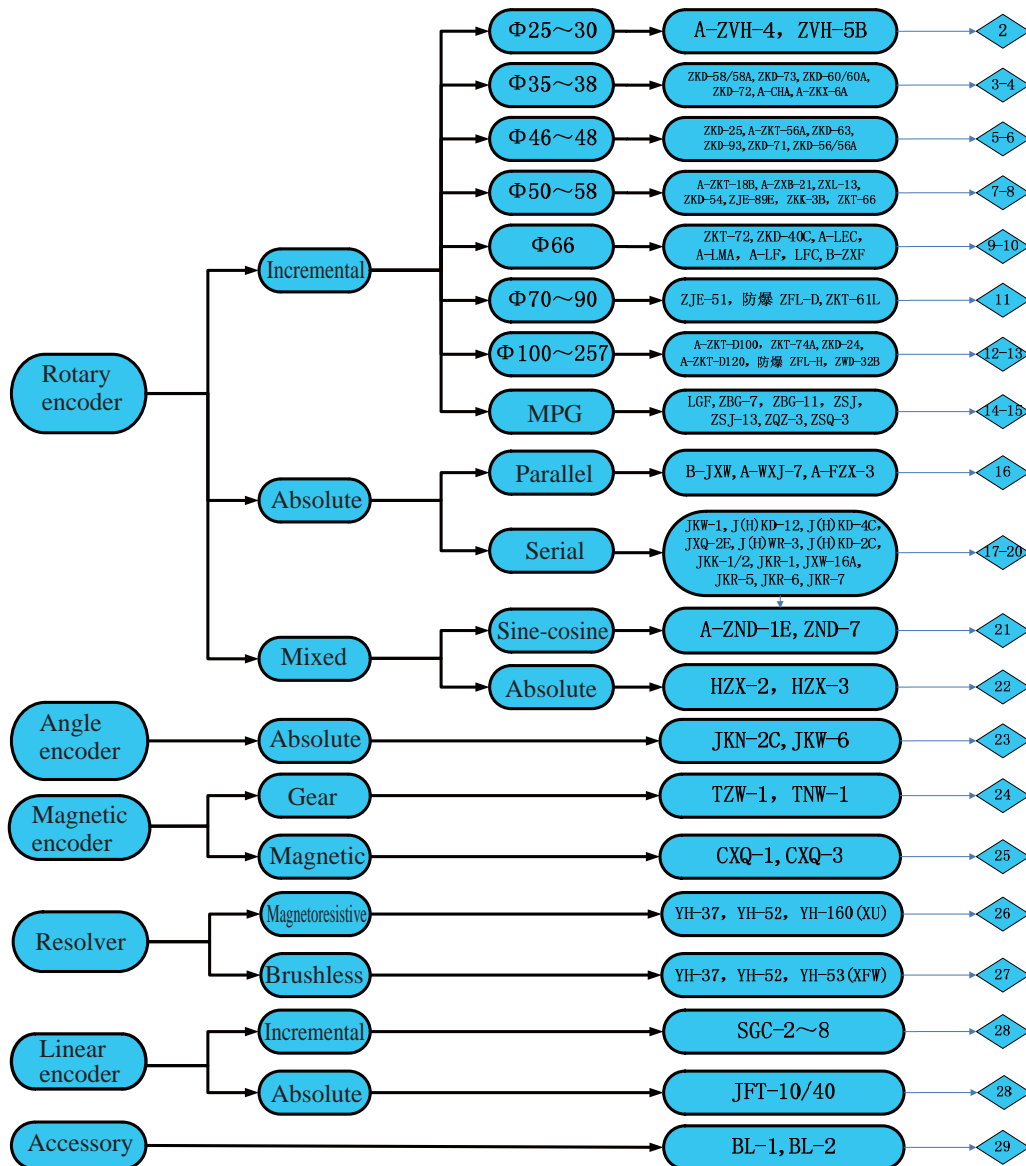
YHO-2023-03

Changchun Yuheng Optics Co., Ltd.



Company profile

Changchun Yuheng Optics Co.,Ltd. is a leading enterprise specialized in grating encoders, resolver and linear encoders,etc. The Industrial Science and Technology Park of Yuheng was completed in 2008 covers 30,000 m² with a 19,000m² building area. The company has grown rapidly in recent years, it now has more than 500 employees. Meanwhile, the annual production capacities of grating encoders, its main product, have reached over 1.5 million units. With its own independent R&D center and introducing Hi-tech transnational talents, the company combines production with study, research and application and has acquired more than 200 national patents, giving it a good lead in the field of encoders. Yuheng is the first to acquire ISO9001 among Chinese sensor industry and its grating encoders have been granted EU RoHS and CE certificate.



Incremental

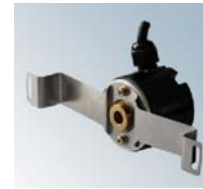


Application		Precision measuring instruments、 medical instruments	Precision measuring instruments、 medical instruments	Servo motor
Feature		Small size 、 light weight	Small size 、 light weight	Small、 thin
Model	【unit】	A-ZVH-4	ZVH-5B	ZKD-58/58A
Mechanical parameter				
Dimension	[mm]	φ25x41	φ30x43	φ35x20
Shaft type		Solid Shaft	Solid Shaft	Hollow Shaft
Shaft size / aperture	φ [mm]	4	4	Cone Shaft 7
Max. rotate speed	[r/min]	10000	10000	6000
Max. Shaft load Axial / Radial	[N]	9.8/4.9	10/5	10/10
Operating temperature	[C]	-20 ~ +85	-20 ~ +85	-30 ~ +85
Protection level		IP53	IP53	IP40
Connection type		Flange	Flange	Connecting Plate
Resolution	[P/r]	2500	2500	2500
Electrical parameter				
Output type		Voltage/Open Collector	Voltage/Open Collector	Line Driver
Power supply	DC [V]	5/8~26	5/8~26	5
Response frequency / Transmission rate	[KHz] / [Mbps]	100	100	350
Optional				



Application	Servo motor	Servo motor	Servo motor
Feature	Unibus output	Small, thin	Unibus output

Model	【unit】	ZKD-73	ZKD-60/60A	ZKD-72
Mechanical parameter				
Dimension	[mm]	φ35x20	φ37x26.5	φ37x26.5
Shaft type		Hollow Shaft	Hollow Shaft	Hollow Shaft
Shaft size / aperture	φ [mm]	Cone Shaft 7	Cone Shaft 9	Cone Shaft 9
Max. rotate speed	[r/min]	6000	6000	6000
Max. Shaft load Axial / Radial	[N]	10/10	10/10	10/10
Operating temperature	[°C]	-20 ~ +85	-30 ~ +85	-20 ~ +85
Protection level		IP40	IP40	IP50
Connection type		Connecting Plate	Connecting Plate	Connecting Plate
Resolution	[P/r]	17~23 bit	6000	17~23 bit
Electrical parameter				
Output type		RS485	Line Driver	RS485
Power supply	DC [V]	5	5	5
Response frequency / Transmission rate	[KHz] / [Mbps]	2	350	2
Optional				



Application	CNC machine tools, printing machines	CNC machine tools, printing machines	Elevator
Feature	Strong anti-interference	Strong anti-interference	Variety of magnetic pole signals

Model	【unit】	A-CHA	A-ZKX-6A	ZKD-25
Mechanical parameter				
Dimension	[mm]	Φ38x55	Φ38x42	Φ45x40
Shaft type		Solid Shaft	Hollow Shaft	Hollow Shaft
Shaft size / aperture	Φ [mm]	6	8/10	8
Max. rotate speed	[r/min]	5000	5000	1000
Max. Shaft load Axial / Radial	[N]	10/20	9.8/9.8	49/29.4
Operating temperature	[℃]	-30 ~ +85	-30 ~ +85	-20 ~ +70
Protection level		IP54	IP54	IP40
Connection type		Flange	Connecting Plate	Connecting Plate
Resolution	[P/r]	40000	40000	8192
Electrical parameter				
Output type		Voltage/Open Collector/ Line Driver/Push-Pull	Voltage/Open Collector/ Line Driver/Push-Pull	Line Driver
Power supply	DC [V]	5/8 ~ 26	5/8 ~ 26	12
Response frequency / Transmission rate	[KHz] / [Mbps]	100~300	100~300	100
Optional				





Application	Elevator	Servo motor, high-end CNC machine tools	Servo motor, high-end CNC machine tools
Feature	Thin, high resolution	Dustproof design, strong anti-interference	Dustproof design, strong anti-interference

Model	【unit】	A-ZKT-56A	ZKD-63	ZKD-93
Mechanical parameter				
Dimension	[mm]	φ46x25.5	φ48x26.5	φ48x35
Shaft type		Hollow Shaft	Hollow Shaft	Hollow Shaft
Shaft size / aperture	φ [mm]	8	Cone Shaft 9	Cone Shaft 9
Max. rotate speed	[r/min]	6000	5000	6000
Max. Shaft load Axial / Radial	[N]	10/10	10/10	10/10
Operating temperature	[C]	-30 ~ +85	-20 ~ +85	-30 ~ +85
Protection level		IP40/IP50	IP40	IP40
Connection type		Connecting Plate	Connecting Plate	Connecting Plate
Resolution	[P/r]	8192	8192	5000
Electrical parameter				
Output type		Voltage/Open Collector	Line Driver	Line Driver
Power supply	DC [V]	8 ~ 26	5	5
Response frequency / Transmission rate	[KHz] / [Mbps]	30	350	350
Optional				



Application	Servo motor	Servo motor, high-end CNC machine tools	Elevator
Feature	Unibus output, high resolution, dustproof design	Dustproof design, strong anti-interference	Thin

Model	[unit]	ZKD-71	ZKD-56/56A	A-ZKT-18B
Mechanical parameter				
Dimension	[mm]	φ48x33	φ48x33	φ50x30
Shaft type		Hollow Shaft	Hollow Shaft	Hollow Shaft
Shaft size / aperture	φ [mm]	Cone Shaft 9	Cone Shaft 9	6
Max. rotate speed	[r/min]	6000	6000	1000
Max. Shaft load Axial / Radial	[N]	10/10	10/10	20/30
Operating temperature	[℃]	-20 ~ +85	-30 ~ +85	-10 ~ +60
Protection level		IP50	IP40	IP51
Connection type		Connecting Plate	Connecting Plate	Connecting Plate
Resolution	[P/r]	17~23 bit	5000	512
Electrical parameter				
Output type		RS485	Line Driver	Open Collector
Power supply	DC [V]	5	5	12
Response frequency / Transimission rate	[KHz] / [Mbps]	2	350	8.5
Optional				





Application	Steel industry	Tanker	High precision measuring instrument
Feature	Strong anti-interference, wide temperature range	Dustproof design	High speed, magnetic pole signal

Model	【unit】	A-ZXB-21	ZXL-13	ZKD-54
Mechanical parameter				
Dimension	[mm]	φ50x70	φ46x65	φ54x40
Shaft type		Solid Shaft	Solid Shaft	Hollow Shaft
Shaft size / aperture	φ [mm]	8	8	Inner Cone 12
Max. rotate speed	[r/min]	5000	200	1000
Max. Shaft load Axial / Radial	[N]	30/50	20/20	10/10
Operating temperature	[℃]	-30 ~ +85	-10 ~ +60	-10 ~ +85
Protection level		IP65	IP40	IP40
Connection type		Coupling	Coupling	Connecting Plate
Resolution	[P/r]	40000	60	8192
Electrical parameter				
Output type		Voltage/Open Collector/ Line Driver/Push-Pull	Voltage/Open Collector	Line Driver
Power supply	DC [V]	5/8~26	5 ~ 15	12
Response frequency / Transmission rate	[KHz] / [Mbps]	100~300	5	100
Optional				



Application		CNC machine tools	High precision measuring instrument	Elevator
Feature		High protection level, anti-surge protection circuit design	Strong anti-interference, long life	Small size, strong anti-interference
Model	[unit]	ZJE-89E	ZKK-3B	ZKT-66
Mechanical parameter				
Dimension	[mm]	φ58x81	φ58x55	φ50x27.6
Shaft type		Solid Shaft	Hollow Shaft	Hollow Shaft
Shaft size / aperture	φ [mm]	5/6/8/9.52/10	12/14/15	8
Max. rotate speed	[r/min]	6000	3000	2000
Max. Shaft load Axial / Radial	[N]	30/50	20/30	10/10
Operating temperature	[C]	-30 ~ +85	-20 ~ +85	-20 ~ +100
Protection level		IP65	IP54	IP40
Connection type		Coupling	Connecting Plate	Connecting Plate
Resolution	[P/r]	80000	8192	2048
Electrical parameter				
Output type		Voltage/Open Collector/ Line Driver/Push-Pull	Voltage/Open Collector/ Line Driver/Push-Pull	Line Driver
Power supply	DC [V]	5/8 ~ 26	5/8 ~ 26	12
Response frequency / Transmission rate	[KHz] / [Mbps]	100~300	100~300	200
Optional				





Application	Elevator	Elevator	CNC machine tools, automation field
Feature	High resolution, high protection level	High resolution, dustproof design	Small starting torque

Model	【unit】	ZKT-72	ZKD-40C	A-LEC
Mechanical parameter				
Dimension	[mm]	φ66x45	φ66x44.5	φ66x71
Shaft type		Hollow Shaft	Hollow Shaft	Solid Shaft
Shaft size / aperture	φ [mm]	16/20	20	5/6/8/9.5/10
Max. rotate speed	[r/min]	3000	5000	6000
Max. Shaft load Axial / Radial	[N]	20/20	50/50	20/40
Operating temperature	[℃]	-20 ~ +85	-40 ~ +85	-30 ~ +85
Protection level		IP65	IP40	IP54/IP65
Connection type		Connecting Plate	Connecting Plate	Coupling
Resolution	[P/r]	10000	1000	80000
Electrical parameter				
Output type		Line Driver/Push-pull	Line Driver	Voltage/Open Collector/ Line Driver/Push-Pull
Power supply	DC [V]	5/8 ~ 26	5	5/8 ~ 26
Response frequency / Transmission rate	[KHz] / [Mbps]	0~350	200	300
Optional				



Application		CNC machine tools, high precision measuring instrument	CNC machine tools, high precision measuring instrument	CNC machine tools, high precision measuring instrument	CNC machine tools, high precision measuring instrument
Feature		Strong anti-interference, long life	Strong anti-interference, long life	Strong anti-interference, long life	Strong anti-interference, long life
Model	[unit]	A-LMA	A-LF	LFC	B-ZXF
Mechanical parameter					
Dimension	[mm]	φ66x90	φ66x133	φ66x133	φ66x89
Shaft type		Solid Shaft	Solid Shaft	Solid Shaft	Solid Shaft
Shaft size / aperture	φ [mm]	5/6/8/10	15	15	15
Max. rotate speed	[r/min]	6000	6000	6000	6000
Max. Shaft load Axial / Radial	[N]	20/40	50/50	50/50	50/50
Operating temperature	[C]	-30 ~ +85	-20 ~ +85	-20 ~ +85	-20 ~ +85
Protection level		IP54	IP65/IP54	IP65	IP65/IP54
Connection type		Coupling	Coupling	Coupling	Coupling
Resolution	[P/r]	80000	80000	8192	80000
Electrical parameter					
Output type		Voltage/Open Collector/ Line Driver/Push-Pull	Voltage/Open Collector/ Line Driver/Push-Pull	Voltage/Open Collector/ Line Driver/Push-Pull	Voltage/Open Collector/ Line Driver/Push-Pull
Power supply	DC [V]	5/8 ~ 26	5/8 ~ 26	5/8 ~ 26	5/8 ~ 26
Response frequency / Transmission rate	[KHz] / [Mbps]	300	300	100~300	100~300
Optional					





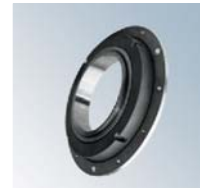
Application	Automation field	Explosion-proof environment	Ceramic machine
Feature	Strong axle load capacity	Explosion-proof	Strong anti-interference, long life

Model	【unit】	ZJE-51	ZFL-D	ZKT-61L
Mechanical parameter				
Dimension	[mm]	φ78x93	φ76x92.6	φ90x56
Shaft type		Solid Shaft	Solid Shaft	Hollow Shaft
Shaft size / aperture	φ [mm]	10	4/5/6	25~45
Max. rotate speed	[r/min]	5000	5000	3000
Max. Shaft load Axial / Radial	[N]	50/100	4.9/4.9	20/30
Operating temperature	[℃]	-10 ~ +70	-20 ~ +40	-20 ~ +80
Protection level		IP65	IP52	IP64
Connection type		Coupling	Coupling	Connecting Plate
Resolution	[P/r]	5400	5000	10000
Electrical parameter				
Output type		Push-Pull	Voltage/Open Collector/ Line Driver/Push-Pull	Line Driver
Power supply	DC [V]	10~30	5/8 ~ 26	5/8 ~ 26
Response frequency / Transmission rate	[KHz] / [Mbps]	100	100~300	150~300
Optional				



Application		Elevator	Elevator	Elevator
Feature		Metal scale, high reliability, long life	Multiple axis selection	High speed, high resolution
Model	【unit】	A-ZKT-D100	ZKT-74A	ZKD-24
Mechanical parameter				
Dimension	[mm]	φ100x43	φ100x40	φ100x56
Shaft type		Hollow Shaft	Hollow Shaft	Hollow Shaft
Shaft size / aperture	φ [mm]	20~30	20/30/38/40	30
Max. rotate speed	[r/min]	3300	3000	500
Max. Shaft load Axial / Radial	[N]	20/40	20/40	50/50
Operating temperature	[℃]	-30 ~ +85	-30 ~ +85	-30 ~ +85
Protection level		IP40	IP40	IP52
Connection type		Connecting Plate	Connecting Plate	Connecting Plate/Screw/Key
Resolution	[P/r]	1024	1024	8192
Electrical parameter				
Output type		Voltage/Open Collector/Line Driver/Push-Pull	Line Driver	Line Driver
Power supply	DC [V]	5/8 ~ 30	5/8 ~ 26	5
Response frequency / Transmission rate	[KHz] / [Mbps]	100~300	100~300	200
Optional				





Application		Elevator	Explosion-proof environment	CNC machine tools
Feature		Wide operating temperature range	Explosion-proof	Unique installation design, strong and reliable
Model	[unit]	A-ZKT-D120	ZFL-H	ZWD-32B
Mechanical parameter				
Dimension	[mm]	φ120x54	φ124x105/100x40	φ256x40
Shaft type		Hollow Shaft	Hollow Shaft	Hollow Shaft
Shaft size / aperture	φ [mm]	20~48	25~38	115/130
Max. rotate speed	[r/min]	3000	5000	5000
Max. Shaft load Axial / Radial	[N]	40/60	20/40	—
Operating temperature	[C]	-20 ~ +85	-10 ~ +60	-30 ~ +70
Protection level		IP50	IP52	IP40
Connection type		Connecting Plate	Connecting Plate	The Shaft is fixed on the main Shaft of the user's machine tool
Resolution	[P/r]	7200	3000	2048
Electrical parameter				
Output type		Voltage/Open Collector/Line Driver/Push-Pull	Line Driver/Push-Pull	Line Driver
Power supply	DC [V]	5/8 ~ 30	5/8 ~ 26	5
Response frequency / Transmission rate	[KHz] / [Mbps]	100~300	100~300	300
Optional				

MPG



Application	CNC machine tools	CNC machine tools	CNC machine tools
Feature	Metal scales	Plastic shell, high insulation resistance	Metal shell, high insulation resistance

Model	【unit】	LGF	ZBG-7	ZBG-11
Mechanical parameter				
Dimension	[mm]	φ80×60	φ61×49	φ60.4×41.5
Shaft type		—	—	—
Shaft size / aperture	φ [mm]	—	—	—
Max. rotate speed	[r/min]	600	600	600
Max. Shaft load Axial / Radial	[N]	—	—	—
Operating temperature	[℃]	0 ~ +60	-10 ~ +60	-10 ~ +60
Protection level		IP50	IP50	IP50
Connection type		Panel nut (diameter φ72)	Panel nut (diameter φ50.8)	Panel nut (diameter φ50.8)
Resolution	[P/r]	100/25	100/25	100/25
Electrical parameter				
Output type		Voltage/Open Collector/Line Driver	Voltage/Line Driver	Voltage/Line Driver
Power supply	DC [V]	5/5~5/15~24	5/5 ~ 15	5/8 ~ 15
Response frequency / Transimission rate	[KHz] / [Mbps]	0~5	0~5	0~5
Optional		Direction discrimination circuit		





Application		CNC machine tools	CNC machine tools	Medical instruments	CNC machine tools
Feature		Convenient for manual operation	Multi-axis optional, multiply, emergency stop	Easy to operate	Wire displacement sensor
Model	【unit】	ZSJ	ZSJ-13	ZQZ-3	ZSQ-3
Mechanical parameter					
Dimension	[mm]	φ74x162	φ87x232	85x56.5	51.5x73.5
Shaft type		—	—	—	—
Shaft size / aperture	φ [mm]	—	—	—	—
Max. rotate speed	[r/min]	600	600	200	60m/min
Max. Shaft load Axial / Radial	[N]	—	—	0.2 ~ 0.5	—
Operating temperature	[℃]	-10 ~ +60	-10 ~ +60	5 ~ +50	-30 ~ +85
Protection level		IP67	IP64	—	IP54
Connection type		—	—	—	Maual
Resolution	[P/r]	100	100	680	5000
Electrical parameter					
Output type		Voltage/Line Driver	Voltage/Line Driver	Voltage	Voltage/Open Collector/Line Driver/Push-Pull
Power supply	DC [V]	5/5~15/10~30	5/5 ~ 15	5	5/5 ~ 26
Response frequency / Transmission rate	[KHz] / [Mbps]	0~5	0~5	0 ~ 50	300
Optional					

Absolute



Application		Precision measuring instruments	Rotating knife holder	Textile machinery
Feature		High precision	Small size, shock resistance	Dustproof, waterproof, metal scale, impact resistance, vibration resistance
Model	[unit]	B-JXW	A-WXJ-7	A-FZX-3
Mechanical parameter				
Dimension	[mm]	φ66×95	φ42×62	φ65×101.5
Shaft type		Solid Shaft	Solid Shaft	Solid Shaft
Shaft size / aperture	φ [mm]	8	6	Zigzag Shaft/M10
Max. rotate speed	[r/min]	5000	5000	5000
Max. Shaft load Axial / Radial	[N]	10/20	10/20	50/50
Operating temperature	[C]	-25 ~ +85	-20 ~ +85	-30 ~ +85
Protection level		IP54	IP54/IP65	IP65
Connection type		Spigot locating /Coupling	Spigot locating /Coupling	Spigot locating/ Threaded connection
Resolution	[P/r]	2 ¹⁶	2 ¹⁶	180 degree
Electrical parameter				
Output type		Voltage/Open Collector	Push-Pull	Voltage
Power supply	DC [V]	5/8 ~ 30	5 ~ 26	8 ~ 30
Transmission speed	[Mbps]	20	0 ~ 1	0 ~ 10
Optional				



Application	Servo motor	Servo motor	Servo motor
Feature	□40 Servo motor, strong anti-interference	□60 Servo motor, strong anti-interference	□40 Servo motor, split installation

Model	【unit】	JKD-12 HKD-12	JKD-4C HKD-4C	JWR-3 HWR-3
Mechanical parameter				
Dimension	[mm]	φ35×23.5	φ37×26.5	φ35×14.5
Shaft type		Semi-Hollow Shaft	Inner cone/Outer cone	Semi-Hollow Shaft
Shaft size / aperture	φ [mm]	6	9 (deep 13.5)	6
Max. rotate speed	[r/min]	6000	6000	6000
Max. Shaft load Axial / Radial	[N]	10/10	10/10	—
Operating temperature	[℃]	-20 ~ +85	-20 ~ +85	-20 ~ +85
Protection level		IP40	IP40	IP00
Connection type		Connecting Plate	Connecting Plate	Spigot locating
Resolution	[P/r]	Single turn13~22 bit multi-turn7~19 or 23bit	Single turn13~21bit multi-turn7~19 or 23bit	Single turn13~21bit multi-turn7~19 or 23bit
Electrical parameter				
Output type		SSI/BISS/FD	SSI/BISS/FD	SSI/BISS/FD
Power supply	DC [V]	5	5	5
Transmission speed	[Mbps]	≤10(BISS) ≤4(SSI) 2.5(FD)	≤10(BISS) ≤4(SSI) 2.5(FD)	2.5(FD)
Optional				



Application		Precision measuring instruments, precision control instruments	Servo motor	Automation field
Feature		High protection level, high resolution	□80 Servo motor, anti-interference	High protection level
Model	[unit]	JXQ-2E	JKD-2C HKD-2C	JKW-1
Mechanical parameter				
Dimension	[mm]	φ42×60	φ48×33	φ35×40
Shaft type		Solid Shaft	Inner cone/Outer cone	Semi-Hollow Shaft
Shaft size / aperture	φ [mm]	6	9 (deep18.5)	8 (deep12.5)
Max. rotate speed	[r/min]	6000	6000	6000
Max. Shaft load Axial / Radial	[N]	10/10	10/10	5/10
Operating temperature	[C]	-20 ~ +85	-20 ~ +85	-42 ~ +85
Protection level		IP54	IP50	IP67S
Connection type		Spigot φ20	Connecting Plate	Connecting Plate
Resolution	[P/r]	2 ²¹	Single turn13~20bit multi-turn7~19 or 23bit	8~21
Electrical parameter				
Output type		SSI/BISS/RS485	SSI/BISS	SSI/BISS
Power supply	DC [V]	5	5	5/8 ~ 26
Transmission speed	[Mbps]	≤10(BISS) ≤4(SSI)	≤10(BISS) ≤4(SSI)	≤10(BISS) ≤4(SSI)
Optional				





Application	Precision measuring instruments, precision control instruments	Robot, automation field	Automation field, Machine tools
Feature	High resolution, strong anti-interference	Thin, high resolution	High resolution, strong anti-interference

Model	【unit】	JKK-1/2	JKR-1	JXW-16A
Mechanical parameter				
Dimension	[mm]	φ90x52/ φ150x52.5	φ85x16	φ58x76
Shaft type		Hollow Shaft	Hollow Shaft	Solid Shaft
Shaft size / aperture	φ [mm]	42/45~65	25/27	5/6/8/9.52/10
Max. rotate speed	[r/min]	2000/3000	6000	6000
Max. Shaft load Axial / Radial	[N]	20/30(20/40)	10/10	30/40
Operating temperature	[°C]	-40 ~ +85/ -20 ~ +85	-20 ~ +85	-20 ~ +85
Protection level		IP64/IP50	IP40	IP65
Connection type		Connecting Plate	Connecting Plate	Coupling
Resolution	[P/r]	2 ²⁰⁻²³	2 ²¹	2 ²¹
Electrical parameter				
Output type		SSI/BISS	SSI/BISS	SSI/BISS
Power supply	DC [V]	5	5	5/8~26
Transmission speed	[Mbps]	≤10(BISS) ≤4(SSI)	≤10(BISS) ≤4(SSI)	≤10(BISS) ≤4(SSI)
Optional				

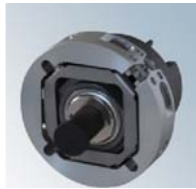


Application	Collaborative joints robot, automation field	Collaborative joints robot, automation field	Collaborative joints robot, automation field
Feature	Thin, high resolution	Thin, high resolution	Thin, high resolution

Model	【unit】	JKR-5	JKR-6	JKR-7
Mechanical parameter				
Dimension	[mm]	Φ80x13	Φ60x15	Φ50x14.5
Shaft type		Hollow Shaft	Hollow Shaft	Hollow Shaft
Shaft size / aperture	Φ [mm]	21~27	16~20	10~15
Max. rotate speed	[r/min]	100	6000	100
Max. Shaft load Axial / Radial	[N]	10/10	10/10	10/10
Operating temperature	[℃]	-20 ~ +85	-20 ~ +85	-20 ~ +85
Protection level		IP40	IP40	IP40
Connection type		Connecting Plate	Connecting Plate	Connecting Plate
Resolution	[P/r]	2 ²¹	2 ²³	2 ²³
Electrical parameter				
Output type		SSI/BISS/FD	SSI/BISS/FD	SSI/BISS/FD
Power supply	DC [V]	5	5	5
Transmission speed(Response frequency)	[Mbps]	≤10(BISS) ≤4(SSI)	2.5 (FD)	2.5 (FD)
Optional				



Sine-cosine



Application		Elevator、 Servo motor	Elevator、 Servo motor
Feature		Sine-cosine output	Sine-cosine output
Model	【unit】	A-ZND-1E/ ZND-5B	ZND-7
Mechanical parameter			
Dimension	[mm]	φ65x57.5	φ60x42
Shaft type		Outer cone	Hollow Shaft
Shaft size / aperture	φ [mm]	10	20
Max. rotate speed	[r/min]	500	6000
Max. Shaft load Axial / Radial	[N]	19.6/9.8	—
Operating temperature	[C]	-40 ~ +100	-20 ~ +100
Protection level		IP50	IP40
Connection type		Connecting Plate	Connecting Plate
Resolution	[P/r]	2048	2048
Electrical parameter			
Output type		Sine-cosine	Sine-cosine
Power supply	DC [V]	5	5
Transmission speed/Response frequency	[Mbps]	17.06	200
Optional			



Application		Textile machinery	Textile machinery
Feature		Output incremental signal and absolute signal together	Output incremental signal and absolute signal together
Model	【unit】	HZX-2	HZX-3
Mechanical parameter			
Dimension	[mm]	φ66x81.5	φ66x97
Shaft type		Solid Shaft	Solid Shaft
Shaft size / aperture	φ [mm]	10	Zigzag Shaft
Max. rotate speed	[r/min]	5000	5000
Max. Shaft load Axial / Radial	[N]	49/49	50/30
Operating temperature	[℃]	-30 ~ +85	-10 ~ +70
Protection level		IP55	IP65
Connection type		Spigot locating / Coupling	Spigot locating/ threaded connection
Resolution	[P/r]	2 ⁸ /1000	180 degree/500
Electrical parameter			
Output type		Line Driver	Line Driver
Power supply	DC [V]	5/10~30	5/8~26
Transmission speed(Response frequency)	[Mbps]	100/20	20
Optional			



Angle encoder



Application		High precision measurement、turntable	High precision measurement、turntable
Feature		Multiple protocols、high precision	High precision
Model	【unit】	JKN-2C	JKW-6
Mechanical parameter			
Dimension	[mm]	φ90x58	φ90x36
Shaft type		Hollow Shaft	Hollow Shaft
Shaft size / aperture	φ [mm]	20	35
Max. rotate speed	[r/min]	3000	1200
Max. Shaft load Axial / Radial	[N]	20/30	10/20
Operating temperature	[C]	-20 ~ +70	-45 ~ +85
Protection level		IP64	IP40
Connection type		Connecting Plate	Connecting Plate
Resolution	[P/r]	2 ²⁵	2 ²³
Electrical parameter			
Output type		SSI/BISS/RS485/RS232	RS422
Power supply	DC [V]	5/8~26	5
Transmission speed(Response frequency)	[Mbps]	≤10(BISS) ≤4(SSI) RS485:2Mbps RS232:115.2Kbps	115.2Kbps
Optional			

Gear encoder–incremental



Application	CNC machine tools、 elevator		CNC machine tools、 elevator
Feature	High speed, high anti-vibration level、 dustproof, oilproof		High speed, high anti-vibration level、 dustproof, oilproof
Model	【unit】	TNW-1	TZW-1
Mechanical parameter			
ID of gear	[mm]	82	82
OD of gear	[mm]	103.2	103.2
Number of teeth		256	256
Max. rotate speed	[r/min]	36000	36000
Modulus		0.4	0.4
Operating temperature	[℃]	-40 ~ +100	-40 ~ +100
Protection level		IP68	IP68
Mouting type		Chute and slider	Chute and slider
Electrical parameter			
Resolution	[P/r]	64-512	8192
Output type		Sine-cosine	Line Driver
Power supply	DC [V]	5	5
Response frequency	[KHz] / [Mbps]	200	200
Optional			



Magnetic encoder-absolute



Application		Textile machine	Construction machinery
Feature		Dust / moisture resistant design、strong anti-pollution ability	Strong anti-interference
Model	【unit】	CXQ-1	CXQ-3
Mechanical parameter			
Dimension	[mm]	φ50x40	φ38x35
Shaft type		Solid Shaft	Solid Shaft
Shaft size / aperture	φ [mm]	8	6
Max. rotate speed	[r/min]	5000	5000
Max. Shaft load Axial / Radial	[N]	30/50	10/20
Operating temperature	[C]	-30 ~ +85	-30 ~ +85
Protection level		IP65	IP54
Connection type		Spigot locating/ Coupling	Spigot locating/ Coupling
Resolution	[P/r]	2 ¹⁰	2 ¹²
Electrical parameter			
Output type		Cyclic binary code/natural binary code	SSI/RS422
Power supply	DC [V]	5/8 ~ 26	5/8 ~ 26
Transmission speed	[Mbps]		≤1
Optional			

Resolver-magnetostrictive



Application	New energy vehicles, Elevator, Textile machine		New energy vehicles, Textile machine	New energy vehicles
Feature	Shock resistance, vibration resistance		Shock resistance, vibration resistance	Thin, shock resistance, vibration resistance
Model	【unit】	YH-37(XU)	YH-52(XU)	YH-160(XU)
Mechanical parameter				
Dimension	Φ [mm]	Φ37x16	Φ52x15	Φ160x20
Shaft type		Hollow Shaft	Hollow Shaft	Hollow Shaft
Shaft size / aperture	Φ [mm]	9.52	12.7/18	82
Max. rotate speed	[r/min]	30000	30000	7000
Max. Shaft load Axial / Radial	[N]	—	—	—
Operating temperature	[℃]	-40 ~ +155	-40 ~ +155	-40 ~ +155
Electrical parameter				
Output type		Sine-cosine	Sine-cosine	Sine-cosine
Pole logarithm		4	4、6	8
Excitation voltage	AC [Vrms]	7	7	7
Excitation frequency	[KHz] / [Mbps]	10	10	10
Electrical error		±30'	±30'	±25'
Transformer ratio		0.286±10%	0.286±10%	0.286±10%
Input impedance	[Ω]	120±20%	160±15%	120±15%

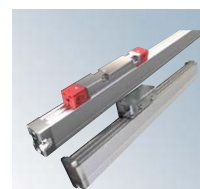
Resolver-brushless



Application	Injection molding machine、 Textile machine、 Elevator	Injection molding machine、 mining machinery, etc.	Injection molding machine、 mining machinery, etc.
Feature	Shock resistance、 vibration resistance、 oil-proof	Shock resistance、 vibration resistance、 oil-proof	High precision、 multiple installation methods

Model	【unit】	YH-37(XFW)	YH-52(XFW)	YH-53(XFW)
Mechanical parameter				
Dimension	Φ [mm]	Φ37.5x16	Φ52.4x26	Φ53x55
Shaft type		Hollow Shaft	Hollow Shaft	Hollow Shaft
Shaft size / aperture	Φ [mm]	9.52	12.7/18	14/12.7/18
Max. rotate speed	[r/min]	10000	10000	5000
Max. Shaft load Axial / Radial	[N]	—	—	10/10
Operating temperature	[C]	-55 ~ +155	-55 ~ +155	-10 ~ +100
Electrical parameter				
Output type		Sine-cosine	Sine-cosine	Sine-cosine
Pole logarithm		1、 2、 3	1、 2、 3、 4	1、 2、 3、 4
Excitation voltage	AC [Vrms]	7	7	7
Excitation frequency	[KHz] / [Mbps]	10	10	10
Electrical error		±10'	±10'	±10'
Transformer ratio		0.5±10%	0.5±10%	0.5±10%
Input impedance	[Ω]	120±15%	140±10%	140±10%

Linear encoder



Application		Linear moving guide, metal cutting machine tools, CNC machining tools	Machine tools, lathes, milling machines, grinders, etc.
Feature		Incremental linear encoder	Absolute linear encoder, multiple protocol option
Model	[unit]	SGC-2~7	JFT-10/40
Mechanical parameter			
Dimension	[mm]	41x105	37x83.5
Max. speed	[m/min]	150	180
Pitch	[μm]	40	40.96
Accuracy	[μm]	3	3
Measuring length	[mm]	50~6000	70~4240
Operating temperature	[$^{\circ}\text{C}$]	0 ~ +50	0 ~ +50
Protection level		IP53	IP53
Connection type		Connecting Plate	Connecting Plate
Resolution	[μm]	0.5	0.0025
Electrical parameter			
Output type		TTL/Sine-cosine	BISS/DRIVE-CLIQ/SSI
Power supply	[V]	5~24	5
Transmission speed	[Mbps]	—	10



Accessory



Application		Suitable for elastic connection between encoder and user	Suitable for elastic connection between encoder and user
Feature		Key/double jackscrew/hold	Double jackscrew/hold
Model	【unit】	BL-1	BL-2
Mechanical parameter			
Max. Speed	[r/min]	20000	20000
Allowed torque	[N·m]	1	1
Allowed installing angle error	[°]	≤1.5	≤1.5
Allowed installing different shaft degree	[mm]	≤0.2	≤0.2
Operating temperature	[°C]	-30 ~ +100	-30 ~ +100
Moment of Inertia	[N·m·s ²]	46x10 ⁻³	9x10 ⁻³
Connection type		Key/double jackscrew/hold	Double jackscrew/hold
Encoder-end Aperture	[mm]	φ8~φ20	φ3~φ12
User-side Aperture	[mm]	φ8~φ20	φ3~φ12
Height	[mm]	9~22.8	—
Width of Key	[mm]	2/3/4/5/6	—