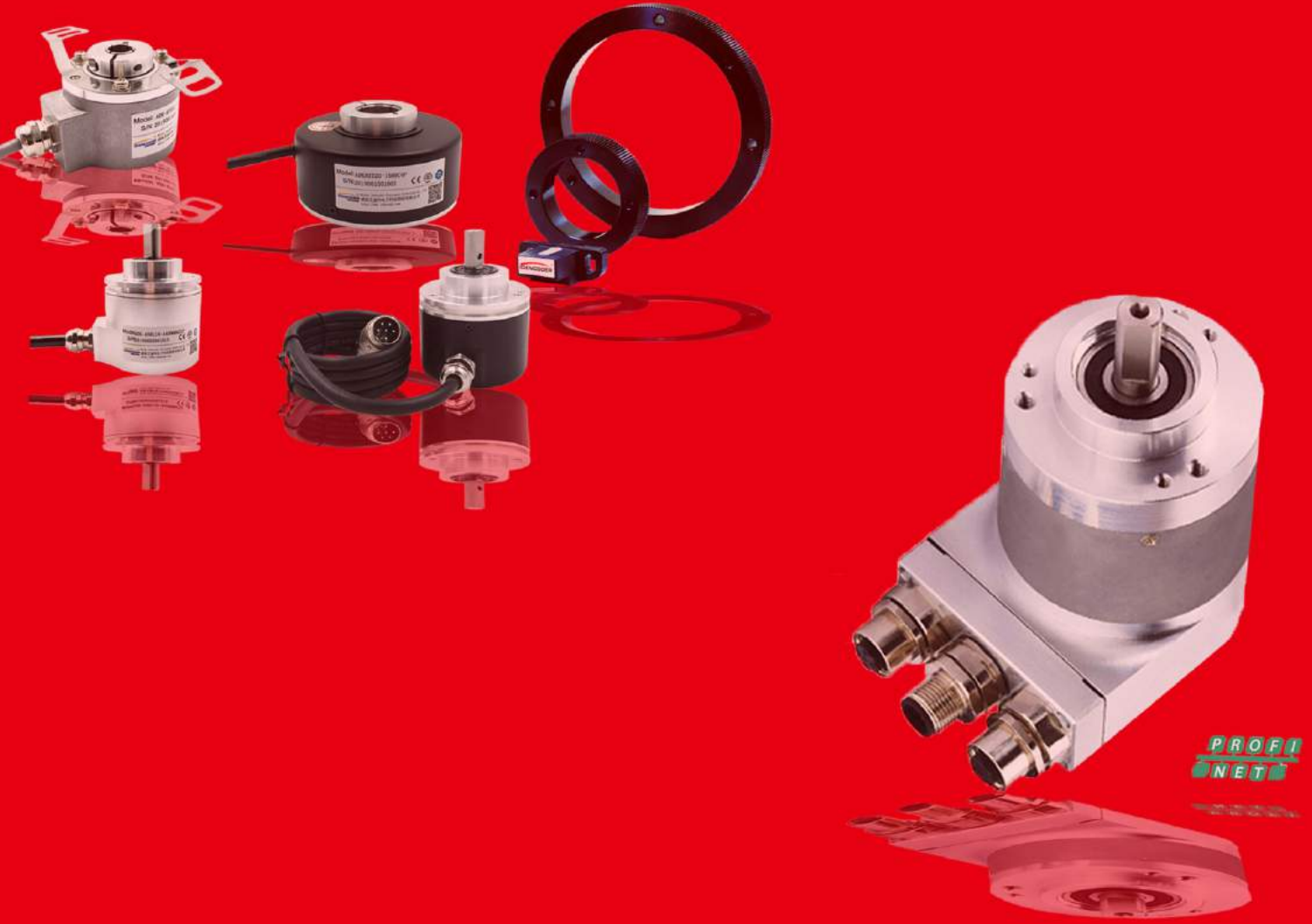


Since 2004

Idencoder Has Been Providing Professional Encoder Solution For Hundreds of Enterprises All Over The World.

Speed and Position Controlling Sensor ---Industry Rotary Encoder Displacement, Speed and Angle Measurement



IDENCODER INDUSTRY ROTARY ENCODER

Industry EtherNet Encoder

-Profinet/EtherCAT/Modbus-TCP/PowerLink

Bus-Based Absolute Encoder

-Modbus/CANopen/Profibus-DP/DeviceNet

Multi-turn Absolute ENcoder

Single-turn Absolute Encoder

Incremental Encoder

Servo Motor Encoder

Manual Pulse Generator

Draw Wire Sensors

**IDENCODER**[®]



Idencoder is a technical enterprise located in **Weihai City Shandong Province, China**, having been providing Professional Encoder Solutions for hundreds of enterprises all over the world.

By the name of Weihai Idencoder Electronic Technology Co., Ltd, we have been specializing in developing, producing and marketing Industrial encoders.

Our Main Products:

- A. Incremental Encoder;
- B. Programmable Incremental Encoder;
- C. Single-turn and multi-turn Absolute Encoder with Parallel, SSI, Modbus, Profibus, Canopen and Profinet interface;
- D. Draw Wire Encoder;
- E. Manual Pulse Generator;
- F. Optical Encoder Kit;
- G. Servo motor encoder;

Encoder with PROFINET interface has filled a gap in domestic market in China.

IDENCODER encoders are widely applied in the textile machinery, hoisting cranes, CNC machine, experimental machine, satellite communication, electric cars, water conservancy project, nuclear power equipment, High-speed railway, mobile equipment, wind power generation, packaging and printing machine, lifting equipment, aeronautical and space industry, Iron and steel reinforcement manufacturing equipment, port machinery, health communications and many other fields in advanced manufacturing industries, automatic assembly line and so on.

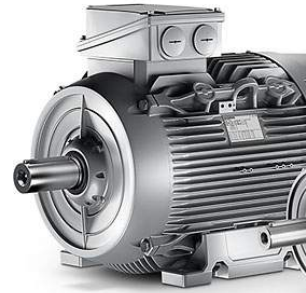


IDENCODER has been providing professional encoder solutions for hundreds of enterprises.



INCREMENTAL ENCODER

AB Phases: A simple and economic Speed Testing Method;
 ABZ phases: A counting/speeding Testing Method with 0 position;
 ABZ phases with A-B-Z- Reverse signals: Line Driver Output with best signal stabilization
 ADK-PI Programmable Encoder: Resolution can be programmed at any value from 10 to 4096;



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 INCREMENTAL ENCODER
 GEAR INDUCTION ENCODER
 ABSOLUTE ENCODER
 DUAL OUTPUT ENCODER
 SERVO MOTOR ENCODER
 DRAW WIRE SENSOR
 MANUAL PLUSES GENERATOR

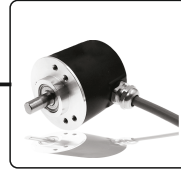
Normal Incremental Encoder (Solid Shaft)

PAGE:1

ADK-MI Series:Housing Dia:25/30mm, Shaft Dia:4/5mm;
 Resolution:Max.1024ppr; Voltage:5v,8-30v;



ADK-38 Series:Housing Dia:38mm,Shaft Dia:6mm;
 Resolution:Max.10000ppr; Voltage:5v,8-30v;



ADK-50 Series:Housing Dia:50mm,Shaft Dia:8mm;
 Resolution:Max.30000ppr; Voltage:5v,8-30v;



ADK-58 Series:Housing Dia:58mm,Shaft Dia:10mm;
 Resolution:Max.30000ppr; Voltage:5v,8-30v;



Normal Incremental Encoder (Hollow/Blind Hollow Shaft)

PAGE:2

ADK-K38 Series:Housing:38mm,Hole:6,8mm;
 Resolution:Max.10000ppr; Voltage:5v,8-30v;



ADK-K44 Series:Housing:44mm,Hole:8,12mm;
 Resolution:Max.10000ppr; Voltage:5v,8-30v;



ADK-K52 Series:Housing:52mm,Hole:6,8,12mm;
 Resolution:Max.10000ppr; Voltage:5v,8-30v;

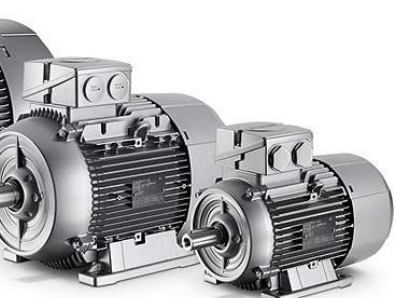


ADK-K60 Series:Housing:60mm,Hole:8,12mm;
 Resolution:Max.10000ppr; Voltage:5v,8-30v;



HOLLOW/BLIND HOLLOW SHAFT INCREMENTAL ENCODER

Supply Voltage and Resolution are selectable



**Incremental Encoder
(Through Hollow Shaft)**
PAGE:3

ADK-K80 Series:Housing:80mm,Hole:20,25,30,40,42mm;
Resolution:Max.6000ppr; Voltage:5v,8-30v;



ADK-K90 Series:Housing:90mm,Hole:20,25,30,40,42mm;
Resolution:Max.6000ppr; Voltage:5v,8-30v;

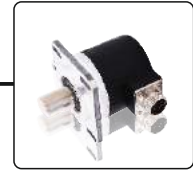


ADK-K100 Series:Housing:100mm,Hole:30,40,45,50mm;
Resolution:Max.6000ppr; Voltage:5v,8-30v;



**Incremental Encoder
(Heavy Duty)**
PAGE:4-5

ADK-FI Series:Housing:68,80mm;
Resolution:Max.10000ppr; Voltage:5v,8-30v;



**Incremental Encoder
(High IP Grade)**
PAGE:6

ADK-GF Series High IP Grade Incremental Encoder
IP60, 60m under water work normally



**Incremental Encoder
(Programmable)**
PAGE:7

ADK-PI Series Programmable Incremental Encoder
Z Phase Width/Resolution:Max.4096ppr Programmable



**Incremental Encoder
(High Accuracy)**
PAGE:8

ADK-GT Series High Accurate Incremental Encoder
Max.Resolution:180000ppr, CNC Table Use



Gear Induction Encoder
PAGE:9-12

ADK-GR Series Gear Induction Encoder
Teeth:128,256,512pcs, Module:0.3,0.4,0.5



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ABSOLUTE ENCODER

DUAL OUTPUT ENCODER

SERVO MOTOR ENCODER

DRAW WIRE SENSOR

MANUAL PLUSSES GENERATOR

ECONOMY ABSOLUTE ENCODER

Economy Absolute Encoder is an innovative product with Strong functionality and low cost, and can satisfy speed angle and position controlling demands of different customers;


Single-Turn Absolute Encoder

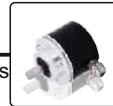
PAGE:13

- ADK-EA Series: Economy Absolute Encoder
Interface: SSI, 485ACSII, Modbus-RTU, BISS; Resolution: Max. 12Bits

- ADK-CXA Series: Serial Absolute Encoder
Interface: SSI, BISS; Resolution: Max. 13Bits

- ADK-PRA Series: Parallel Absolute Encoder
Open Collector, Line Driver, Push pull, Voltage Resolution: Max 13bits

- ADK-MNA Series: Analog Absolute Encoder
4-20mA, 0-10V, 0-10K


Bus-based Absolute Encoder

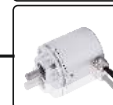
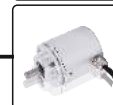
PAGE:14

- ADK-AM Series: Modbus-Rtu Bus-based Absolute Encoder
Modbus Bus-based, Single-turn & Multi-turn

- ADK-AC Series: CANopen Bus-based Absolute Encoder
CANopen Bus-based, Single-turn & Multi-turn

- ADK-AD Series: DeviceNet Bus-based Absolute Encoder
DeviceNet Bus-based, Single-turn & Multi-turn

- ADK-DP Series: Profibus-DP Bus-based Absolute Encoder
Profibus-DP Bus-based, Single-turn & Multi-turn


Multi-Turn Absolute Encoder

PAGE:15

- ADK-MBA Series: Multi-turn Absolute Encoder (Battery Type)
BISS, SSI, Modbus, CANopen, Profibus, Devicenet, Profinet, EtherCat

- ADK-MPA Series: Multi-turn Absolute Encoder (Plastic Gear)
BISS, SSI, Modbus, CANopen, Profibus, Devicenet, Profinet, EtherCat

- ADK-MJA Series: Multi-turn Absolute Encoder (Copper Gear)
BISS, SSI, Modbus, CANopen, Profibus, Devicenet, Profinet, EtherCat



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 DRAW WIRE SENSOR
 MANUAL PLUSES GENERATOR



ABSOLUTE ENCODER

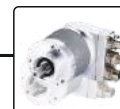
IDENCODER CAN OFFER YOU VIROUS INTERFACES INCLUDINGS: BISS, SSI, Modbus, CANopen, Profibus-DP, Devicenet,Profinet, EtherCat CAN SATISFY DEMANDS OF CUSTOMERS FORM DIFFERENT INDUSTRIES;

EtherNet Absolute Encoder

PAGE:16-18

ADK-AE Series: EtherCAT EtherNet Absolute Encoder

Resolution: 12bits turns Signgle Turn13bits



ADK-PN Series: Profinet EtherNet Absolute Encoder

Resolution: 12bits turns Signgle Turn13bits



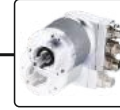
ADK-PL Series: Power-Link EtherNet Absolute Encoder

Resolution: 12bits turns Signgle Turn13bits



ADK-MT Series: Modbus-TCP EtherNet Absolute Encoder

Resolution: 12bits turns Signgle Turn13bits



Absolute Encoder For Turret

PAGE:19

ADK-ER Series: Absolute Encoder For CNC Turret

Number of stations: 6,8,10,12,48, Housing:42,45,50,58mm



Dual Outputs Encoder

PAGE:20

ADK-DIA Series: Incremental And Absolute Dual Output

Speed Control and Position Control

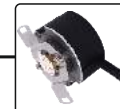


Servo Motor Encoder

PAGE:21-24

ADK-SV Series: Servo Motor Encoder

Resolution: 2500ppr,17bits,19bits, 21bits



Draw Wire Sensors

PAGE:25-26

ADK-DWS Series: Draw Wire Sensors

Range of Measurement Max 60m

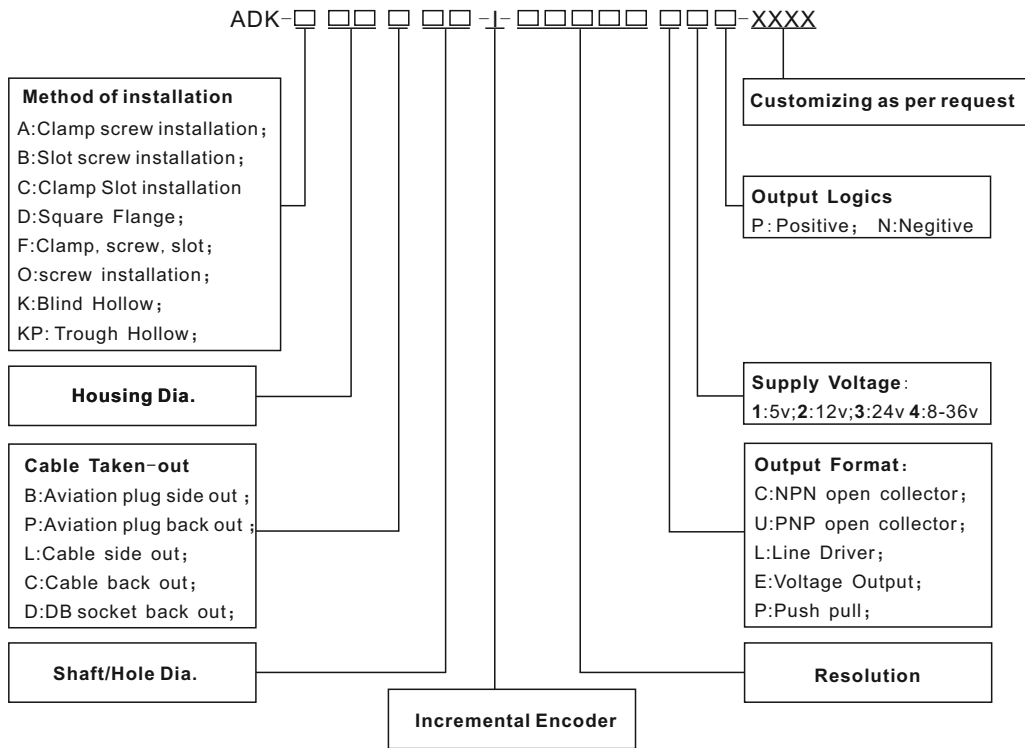


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SERVO MOTOR ENCODER
DRAW WIRE SENSOR
MANUAL PLUSES GENERATOR

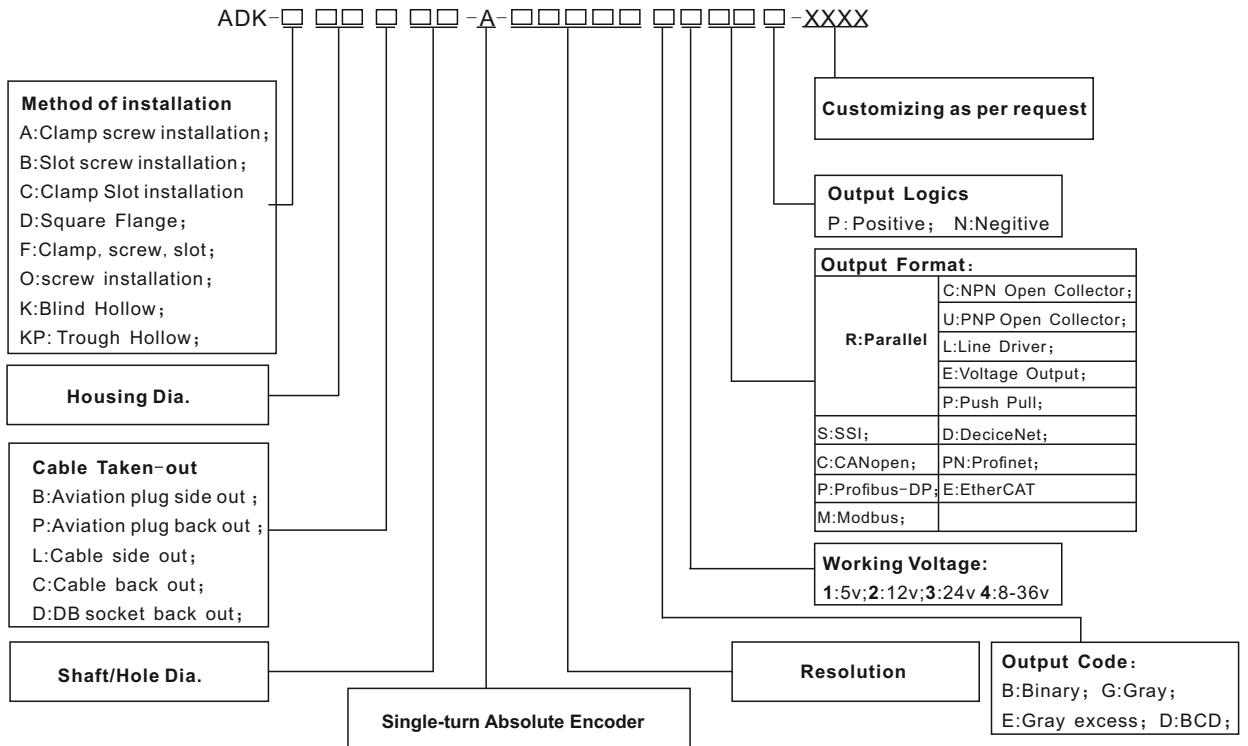
ORDERING CODE

ORDERING CODE

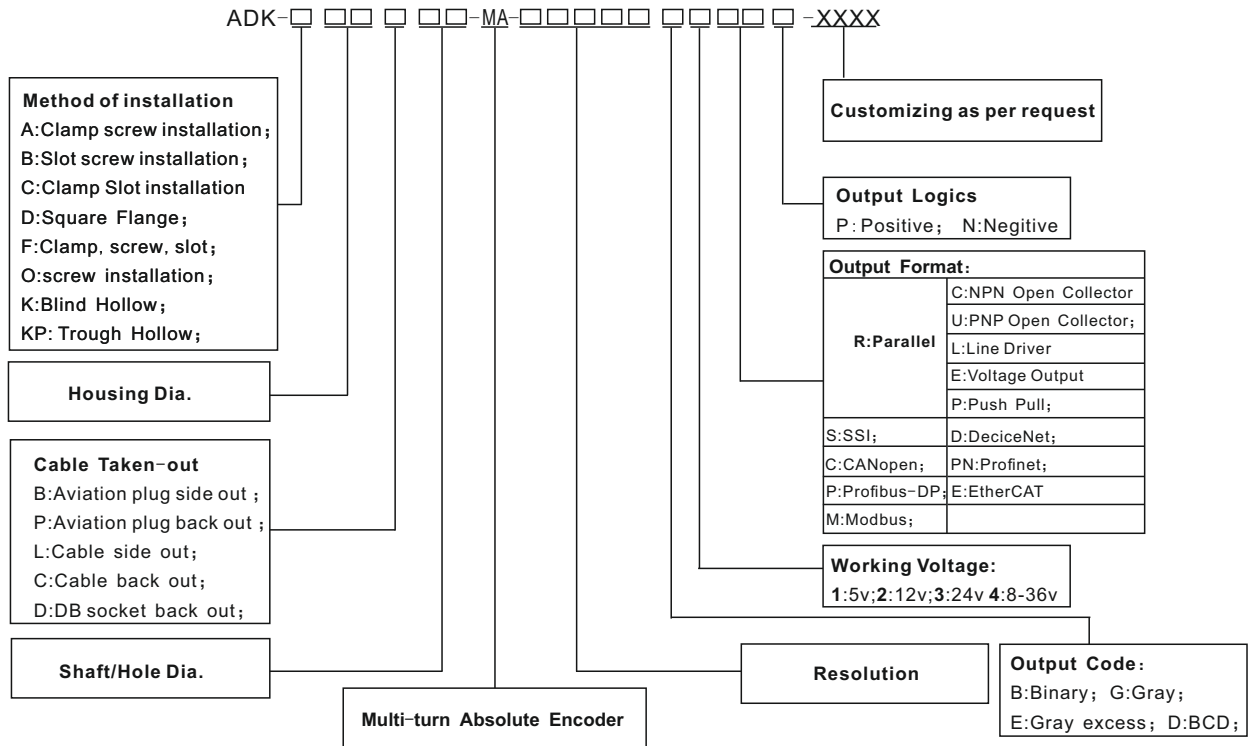
Incremental Encoder



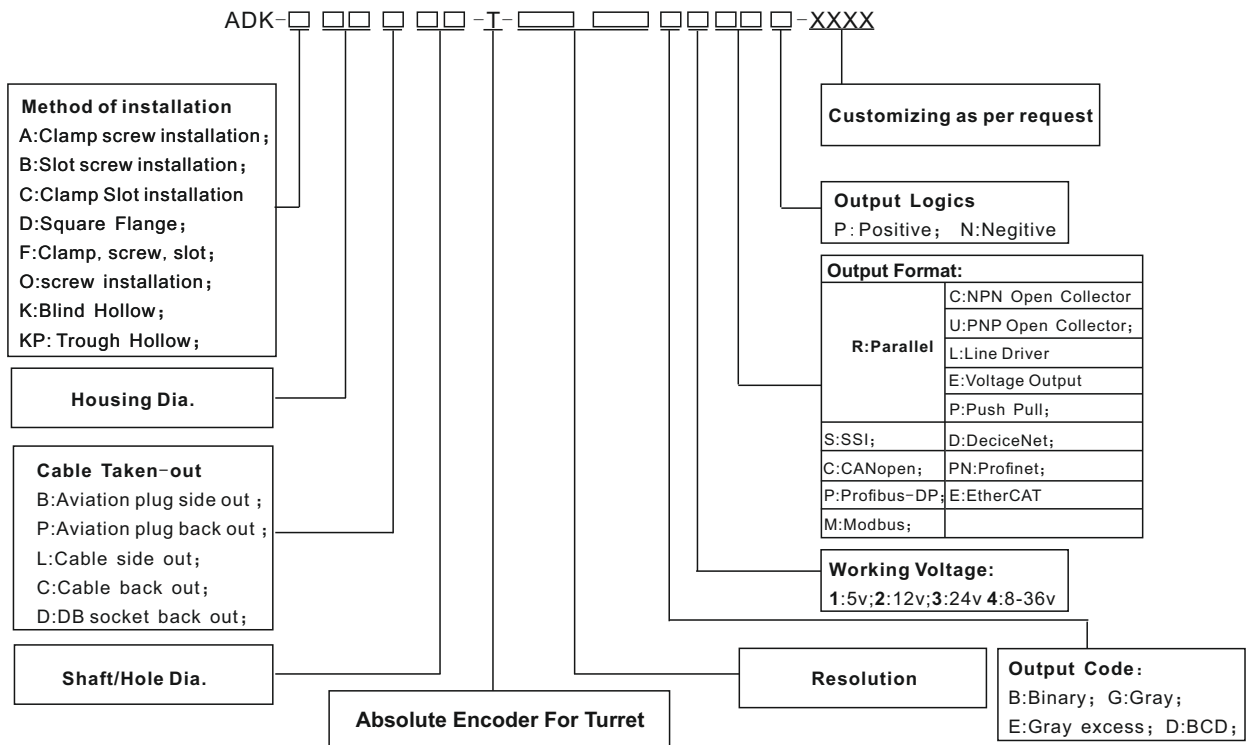
Single-Turn Absolute Encoder



Multi-turn Absolute Encoder



Absolute Encoder For Turret

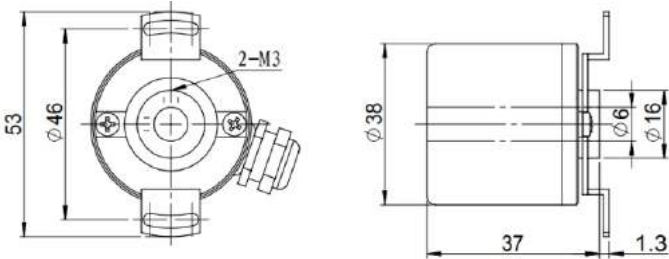


INCREMENTAL ENCODER

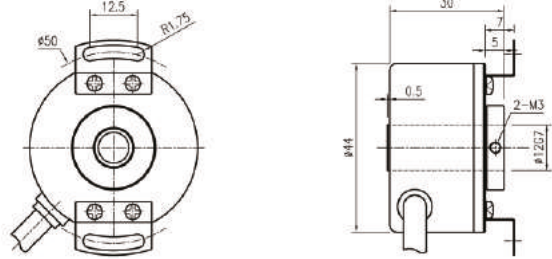


| | | | | |
|---|--|---|---|---|
| Incremental Encoder Blind/Through Hollow | | | | |
| Series No./Name | ADK-K38 Series Incremental Encoder | ADK-K44 Series Incremental Encoder | ADK-K52 Series Incremental Encoder | ADK-K60 Series Incremental Encoder |
| Features | Mini Size, suitable for installation in narrow space; Blind/Through Hollow Shaft Equivalent to KOYO and Omron; | Blind/Through Hollow Shaft Equivalent to KOYO and Omron; Max. Resolution: 1000ppr | Blind/Through Hollow Shaft Equivalent to KOYO and Omron; Max. Resolution: 1000ppr | Blind/Through Hollow Shaft Equivalent to KOYO and Omron; Max. Resolution: 1000ppr |
| Output Format | NPN/PNP Open Collector, Push Pull, Line Driver, Voltage Output | | | |
| Housing Dia. | 38mm | 44mm | 52mm | 60mm |
| Shaft Dia. | 6mm.8mm | 8,12mm | 8,12mm | 8,12mm |
| Resolution | Max.10000ppr | Max.10000ppr | Max.10000ppr | Max.10000ppr |
| Output Signal | A+ B+ two channels, A+ B+ Z+ Three channels; A+ B+ Z+ and A-,B-,Z- | | | |
| Supplying Voltage | 5v,8-30v | | | |
| Max. Rotary Speed | 3000RPM | 5000RPM | 6000RPM | 6000RPM |
| Max. Frequency Response | 200kHz | 200kHz | 150khz | 150khz |
| Max.Load | Radial: 50N, Shaft: 20N | Radial: 50N, Shaft: 20N | Radial: 50N, Shaft: 20N | Radial: 35N, Shaft: 15N |
| Protection Grade | IP54/IP65/IP67 | IP54/IP65/IP67 | IP54/IP65/IP67 | IP54/IP65/IP67 |
| Working Temp. | -10~70°C | | | |
| Certificates | ISO9001/ROHS/CE | | | |

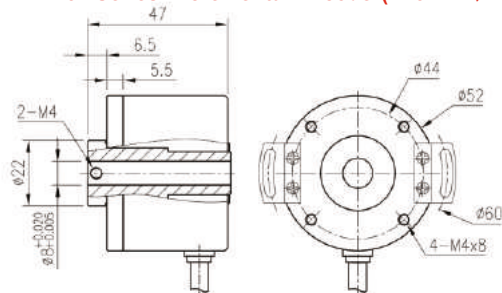
ADK-K38 Series Incremental Encoder(D=38mm)



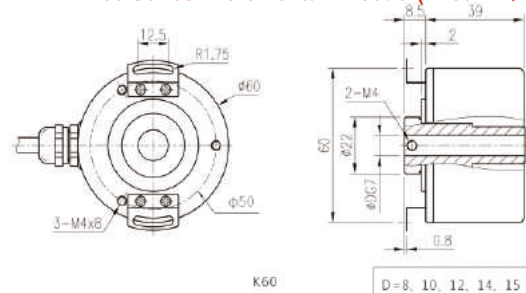
ADK-K44 Series Incremental Encoder(D=44mm)







ADK-K52 Series Incremental Encoder(D=52mm)

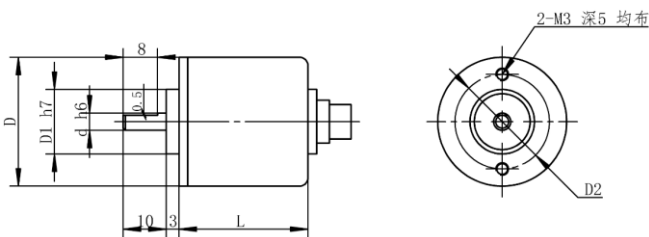


ADK-K60 Series Incremental Encoder(D=60mm)

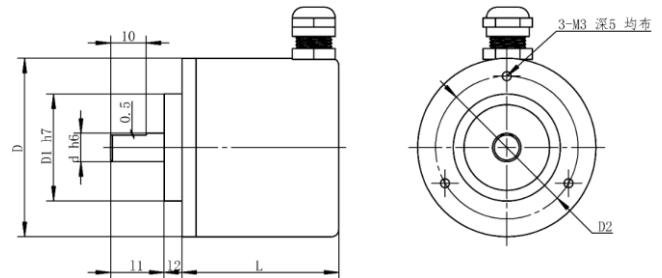


Incremental Encoder

| Series No./Name | ADK-MI Series Mini Incremental Encoder | ADK-38 Series Incremental Encoder | ADK-50 Series Incremental Encoder | ADK-58 Series Incremental Encoder |
|--|---|---|--|---|
| Incremental Encoder Solid Shaft |  |  |  |  |
| Features | Mini Size, suitable for installation in narrow space; Equivalent to KOYO TRD-MX Series, Omron Brands; | Housing Dia:38mm; Shaft: 6mm; Max. Resolution: 10000ppr; Equivalent to Omron E6B2 Series, KOYO TRD-2T Series; | Housing Dia:50mm; Shaft: 8mm; Max. Resolution: 30000ppr; Equivalent to Omron E6B2 Series, KOYO TRD-J/N Series; | Housing Dia:58mm; Shaft: 10mm; Max. Resolution: 30000ppr; Equivalent to Omron & KOYO; |
| Output Format | NPN/PNP Open Collector, Push Pull, Line Driver, Voltage Output | | | |
| Housing Dia. | 25mm, 30mm | 38mm | 50mm | 58mm |
| Shaft Dia. | 4mm, 5mm | 6mm | 8mm | 10mm |
| Resolution | Max.1024ppr | Max.10000ppr | Max.30000ppr | Max.30000ppr |
| Output Signal | A+ B+ two channels, A+ B+ Z+ Three channels; A+ B+ Z+ and A-,B-,Z- | | | |
| Supplying Voltage | 5v,8-30v | | | |
| Max. Rotary Speed | 3000RPM | 5000RPM | 6000RPM | 6000RPM |
| Max. Frequency Response | 200kHz | 200kHz | 150khz | 150khz |
| Max.Load | Radial: 10N, Shaft:5N | Radial: 30N, Shaft:20N | Radial: 50N, Shaft:30N | Radial: 50N, Shaft:30N |
| Protection Grade | IP54/IP65/IP67 | IP54/IP65/IP67 | IP54/IP65/IP67 | IP54/IP65/IP67 |
| Working Temp. | -10~70°C | | | |
| Certificates | ISO9001/ROHS/CE | | | |

ADK-MI Series Mini Incremental Encoder(D=25mm, 30mm)
ADK-TI Series Normal Incremental Encoder(D=38mm, 50mm, 58mm)


| | | |
|----|----|----|
| D | 25 | 30 |
| D1 | 12 | 15 |
| D2 | 18 | 22 |
| d | 3 | 4 |
| L | 30 | 30 |



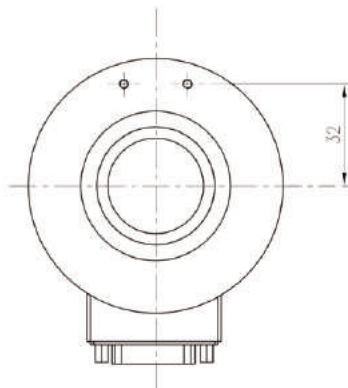
| | | | |
|----|----|----|----|
| D | 38 | 50 | 58 |
| d | 6 | 8 | 10 |
| D1 | 20 | 30 | 36 |
| D2 | 30 | 40 | 48 |
| L | 35 | 35 | 44 |
| 11 | 15 | 15 | 20 |
| 12 | 5 | 5 | 10 |

Incremental Encoder

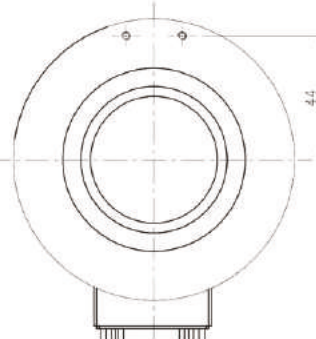
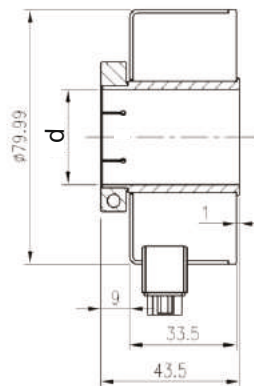
| | | | |
|---------------------------------------|--|--|--|
| Incremental Encoder Through Hollow | | | |
| Series No./Name | ADK-K80 Series | ADK-K90 Series | ADK-K100 Series |
| Features | Applied in automatic control, measurement, robot, X-Y work, elevator, motor, printing and packaging, textile printing and dyeing and other industries; High reliability, long life and strong anti-interference ability; | Applied in automatic control, measurement, robot, X-Y work, elevator, motor, printing and packaging, textile printing and dyeing and other industries; High reliability, long life and strong anti-interference ability; | Applied in automatic control, measurement, robot, X-Y work, elevator, motor, printing and packaging, textile printing and dyeing and other industries; High reliability, long life and strong anti-interference ability; |
| Output Format | NPN/PNP Open Collector, Push Pull, Line Driver, Voltage Output | | |
| Housing Dia. | 80mm | 90mm | 100mm |
| Shaft Dia. | 30,40mm | 30,35,40,45mm | 45,50,55,60,65mm |
| Resolution | Max.5000ppr | Max.5000ppr | Max.5000ppr |
| Output Signal | A+ B+ two channels, A+ B+ Z+ Three channels; A+ B+ Z+ and A-,B-,Z- | | |
| Supplying Voltage | 5v,8-29v | | |
| Max. Rotary Speed | 5000RPM | 5000RPM | 5000RPM |
| Max. Frequency Response | 350kHz | 200kHz | 150kHz |
| Max.Load | Radial: 10N, Shaft: 5N | Radial: 30N, Shaft: 20N | Radial: 50N, Shaft: 30N |
| Protection Grade | IP54/IP65/IP67 | IP54/IP65/IP67 | IP54/IP65/IP67 |
| Working Temp. | -10~70°C | | |
| Certificates | ISO9001/ROHS/CE | | |

ADK-K80 Series Incremental Encoder(Housing Dia. 80mm)

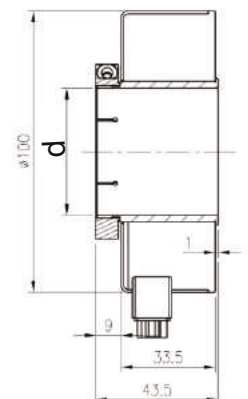
ADK-K90 Series Incremental Encoder(Housing Dia.90mm)



$d = 18, 20, 25, 28, 30$



$d = 45, 48, 50$



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GEAR INDUCTION ENCODER

ABSOLUTE ENCODER

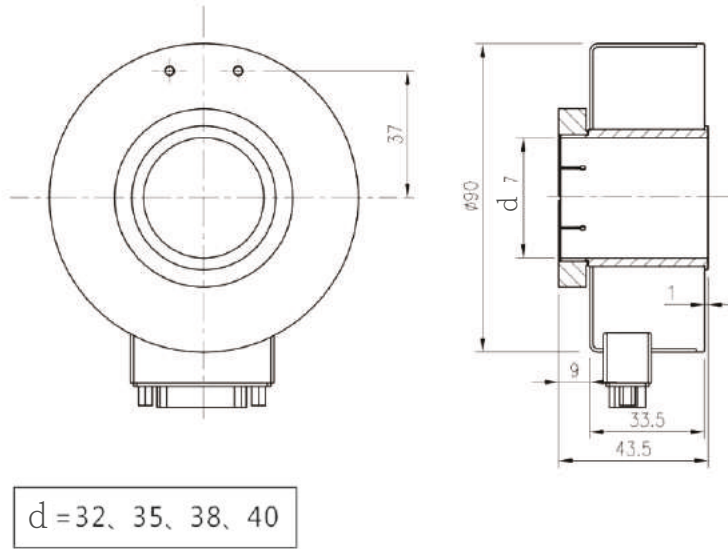
DUAL OUTPUT ENCODER

SERVO MOTOR ENCODER

DRAW WIRE SENSOR

MANUAL PLUSES GENERATOR

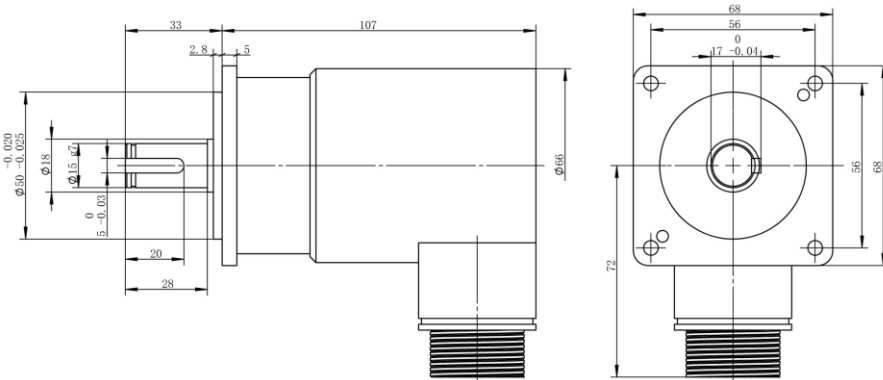
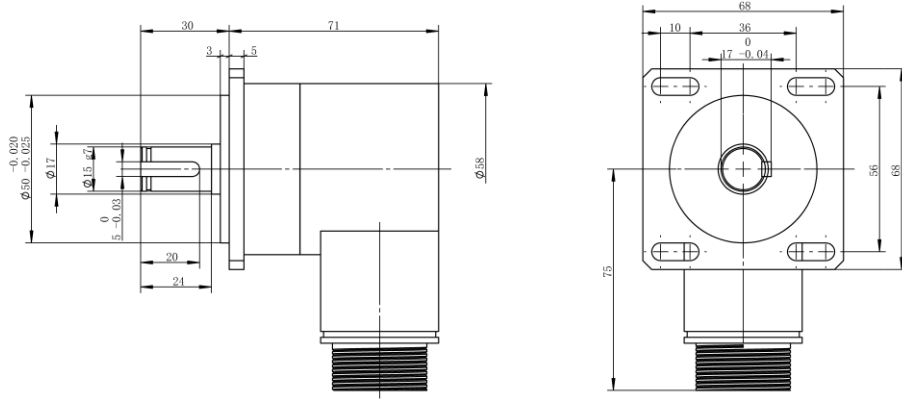
ADK-K100 Series Incremental Encoder(Housing Dia.100mm)



Incremental Encoder

| Series No./Name | ADK-FI Series Heavy Duty Incremental Encoder | ADK-PI Series Programmable Incremental Encoder | ADK-PI Series Programmable Incremental Encoder | ADK-GT Series High Accurate Incremental Encoder |
|---|--|---|--|---|
| Incremental Encoder Through Hollow | | | | |
| Features | Heavy Duty Square Flange Applied in CNC Machines, woodworking machinery, Construction Machinery; | Housing Dia.:38,50,58mm; Shaft Dia. : 6,8,10mm; Resolution: 0-4096ppr programmable; | Housing Dia.:38,50,58mm; Shaft Dia. : 6,8,10mm; Resolution: Max.30000ppr Ip69, can manage works at 60m underwater; | Built in coupling, mainly used for angle measurement of rotary table. The output shaft of the grating is directly connected with the spindle of the rotary table, and the grating base is fixed with the base, and the grating will measure the rotation angle of the spindle |
| Output Format | NPN/PNP Open Collector, Push Pull, Line Driver, Voltage Output | | | |
| Housing Dia. | 68mm, 80mm | 38mm · 50mm,58mm | 38mm,50mm,58 | 90mm |
| Shaft Dia. | 9mm, 10mm, 15mm | 6mm,8mm,10mm | 6mm,8mm,10mm | 10mm (Blind Hollow Shaft 20m) |
| Resolution | Max.10000ppr | 0-4096 Programmable | Max.30000ppr | Max.180000ppr |
| Output Signal | A+ B+ two channels, A+ B+ Z+ Three channels; A+ B+ Z+ and A-,B-,Z- | | | |
| Supplying Voltage | 5v,8-30v | | | |
| Max. Rotary Speed | 3000RPM | 5000RPM | 6000RPM | 6000RPM |
| Max. Frequency Response | 350kHz | 200kHz | 150khz | 150khz |
| Max.Load | Radial: 10N, Shaft: 5N | Radial: 30N, Shaft: 20N | Radial: 50N, Shaft: 30N | Radial: 100N, Shaft: 50N |
| Protection Grade | IP54/IP65/IP67 | IP54/IP65/IP67 | Ip69 | IP54/IP65/IP67 |
| Working Temp. | -10~70°C | | | |
| Certificates | ISO9001/ROHS/CE | | | |

ADK-FI系列 法兰重载型增量编码器(D=68mm)



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ABSOLUTE ENCODER

DUAL OUTPUT ENCODER

SERVO MOTOR ENCODER

DRAW WIRE SENSOR

MANUAL PLUSES GENERATOR

IP69 / ADK-GF Series High Protection Grade Encoder



Working Properly at 60m in the water

ADK-GF Series

ADK-GF Series High Protection Incremental Encoder


- ▶ Housing Dia.:38,50,58mm; Shaft Dia. : 6,8,10,12mm;
- ▶ IP69, at 60m in the water works properly
- ▶ Resolution: Max.10000ppr;
- ▶ Max. Rotary Speed:5000RPM;

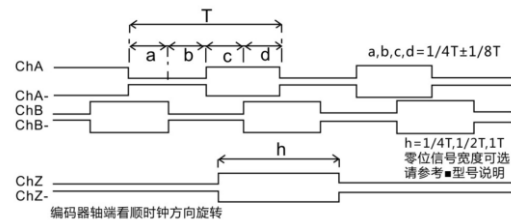
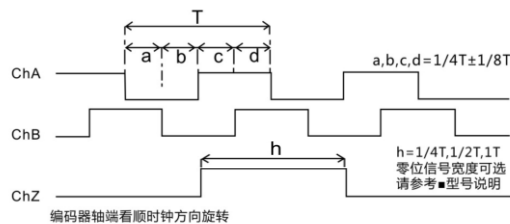
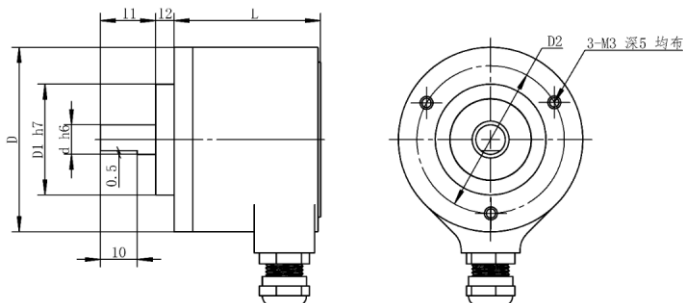
IP69, ADK-GF Series Encoder can work at 60m in the water;

Output Format: 1) NPN Open Collector 2) PNP Open Collector 3) Push Pull 4) Line Driver 5) Voltage Output;

Supply Voltage:5v,8-30v, Output Signal: 1) A B channels, 2) ABZ three channels, 3) A B Z & A-B-Z- six channels

Technical Parameter

| Mechanical Parameters | | Electrical Parameters | | Environmental Parameters | | Connection | | |
|-----------------------|---|--------------------------|--|--------------------------|---|------------|-------------|-----------|
| Start Torque | $\leq 0.001 \sim 0.005 \text{ N} \cdot \text{m}$ | Resolution | Programmable | Working Temp. | $-20^{\circ}\text{C} \sim 70^{\circ}\text{C}$ | Color | Singal | |
| Rotary Inertia | $1 \sim 6 \times 10^{-7} \text{ kg} \cdot \text{m}^2$ | Supply Voltage | 5v/8-29v | Storage Temp. | $-20^{\circ}\text{C} \sim 85^{\circ}\text{C}$ | | Line Driver | Push pull |
| Axial Load | 50N | Output Format | NPN /PNP Open Collector, Push Pull, Line Driver, Voltage Output; | Relative Humidity | 30-85% (Non Condensing)) | Red | Vcc | Vcc |
| Radial Load | 70N | Max. Current Consumption | 80mA(Line Driver) 120mA(Push pull) | Anti-vibration | 50 m/s^2 10-200Hz XYZ direction 2H | Black | 0v | 0v |
| Max.Rotary Speed | 5000rpm | Max Response Frequency | 50~150kHz | Anti-shock | 980 m/s^2 6ms XYZ direction 2t | Green | ChA+ | ChA+ |
| Net Weight | 0.25kg | Lift/fall Time | 200ns(Line Driver) $1 \mu\text{s}$ (Push pull) | Protect Grade | IP54 | White | ChB+ | ChB+ |
| | | | | | | Yellow | ChZ+ | ChZ+ |
| | | | | | | Brown | ChA- | / |
| | | | | | | Gray | ChB- | / |
| | | | | | | Orange | ChZ- | / |
| | | | | | | Shielding | GND | GND |

Wave form

Dimensions:


| | | | |
|----|----|----|----|
| D | 38 | 50 | 58 |
| d | 6 | 8 | 10 |
| D1 | 20 | 30 | 36 |
| D2 | 30 | 40 | 48 |
| L | 35 | 40 | 52 |
| l1 | 15 | 15 | 20 |
| l2 | 5 | 5 | 10 |

ADK-PI Series Programmable Incremental Encoder



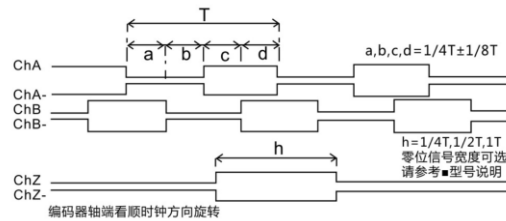
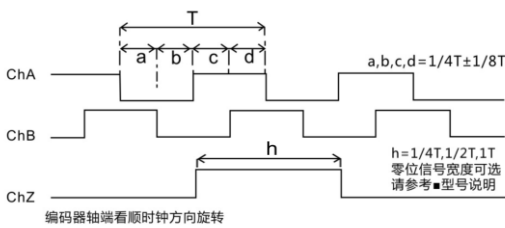
- ▶ Housing Dia.: 38, 50, 58mm, Shaft Dia 6, 8, 10, 12mm, Blind Hollow is Available
- ▶ Resolution: customer can set the resolution at any value from 2 to 4096ppr.
- ▶ Z channel width can also be set on the customer software offered by the supplier
- ▶ Max. Rotary Speed: 5000rpm;

Customer can set the resolution the PI Encoder at any value with the computer software offered by the supplier;
 Output Format: 1) Push Pull 2) Line Driver;
 Supply Voltage: 5v, 8-29v, Output Signal: 1) AB channels, 2) ABZ three channels, 3) A B Z & A-B-Z- six channels;

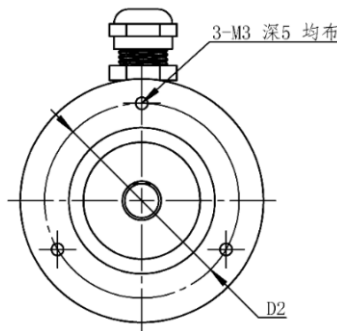
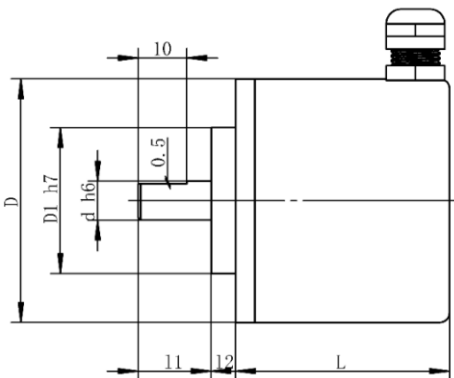
▷ **Technical Parameter**

| Mechanical Parameters | | Electrical Parameters | | Environmental Parameters | | Connection | | |
|-----------------------|--|--------------------------|---|--------------------------|--|------------|-------------|-----------|
| Start Torque | $\leq 0.001 \sim 0.005N \cdot m$ | Resolution | Programmable | Working Temp. | $-20^{\circ}C \sim 70^{\circ}C$ | Color | Singal | |
| Rotary Inertia | $1 \sim 6 \times 10^{-7} kg \cdot m^2$ | Supply Voltage | 5v/8-29v | Storage Temp. | $-20^{\circ}C \sim 85^{\circ}C$ | | Line Driver | Push pull |
| Axial Load | 50N | Output Format | Push pull/Line Driver | Relative Humidity | 30-85% (Non Condensing) | Red | Vcc | Vcc |
| Radial Load | 70N | Max. Current Consumption | 80mA(Line Driver) 120mA(Push pull) | Anti-vibration | $50m/s^2$ 10-200Hz XYZ direction 2H | Black | 0v | 0v |
| Max.Rotary Speed | 5000rpm | Max Response Frequency | 50~150kHz | Anti-shock | $980m/s^2$ 6ms XYZ direction 2t | Green | ChA+ | ChA+ |
| Net Weight | 0.25kg | Lift/fall Time | 200ns(Line Driver) $1 \mu s$ (Push pull) | Protect Grade | IP54 | White | ChB+ | ChB+ |
| | | | | | | Yellow | ChZ+ | ChZ+ |
| | | | | | | Brown | ChA- | / |
| | | | | | | Gray | ChB- | / |
| | | | | | | Orange | ChZ- | / |
| | | | | | | Shielding | GND | GND |

▷ **Wave form**



▷ **Dimensions:**



| | | | |
|----|----|----|----|
| D | 38 | 50 | 58 |
| d | 6 | 8 | 10 |
| D1 | 20 | 30 | 36 |
| D2 | 30 | 40 | 48 |
| L | 35 | 35 | 44 |
| 11 | 15 | 15 | 20 |
| 12 | 5 | 5 | 10 |

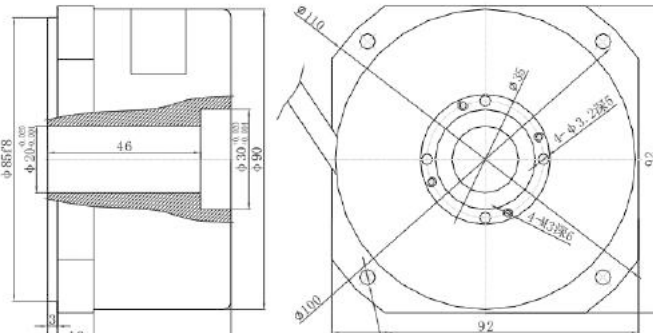
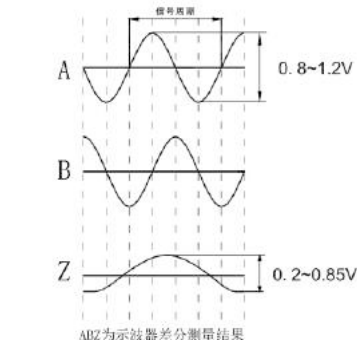
ADK-GT Series High Accurate Incremental Encoder


- ▶ Housing Dia.:90mm,Shaft Dia.:10(Solid),20(Blind hollow)mm
- ▶ Resolution:18000PPR;
- ▶ Sine Wave 1Vpp Signal Output:Accuracy:0.072";
- ▶ Applied on High Accuracy CNC Table;
- ▶ Max Rotary Speed 6000rpm;

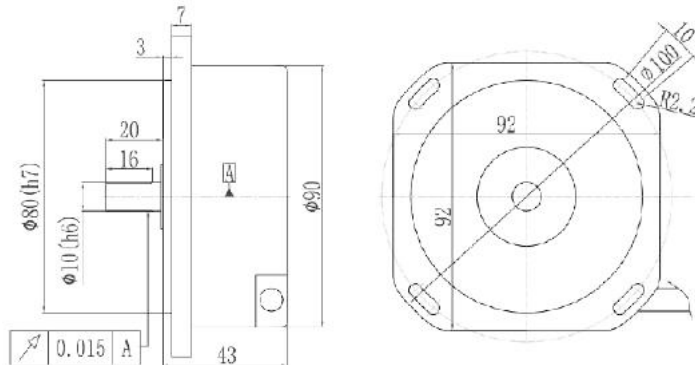
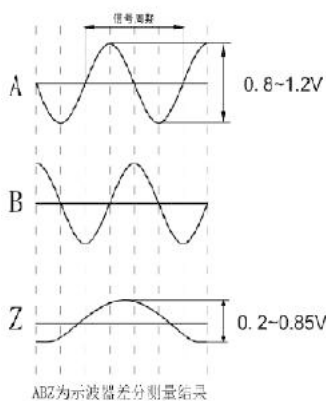
ADK-GT Series High Accurate Incremental Encoder is applied on CNC Table for angle testing, the accuracy can reach 0.072" Output Format: 1) NPN Open Collector 2) PNP Open Collector 3) Push Pull 4) Line Driver 5) Voltage Output; Supply Voltage:5v,8~30v, Output Signal: 1) A B channels, 2) ABZ three channels, 3) A B Z & A-B-Z- six channels

▷ Technical Parameter

| Mechanical Parameters | | Electrical Parameters | | Environmental Parameters | | Connection | | |
|-----------------------|---|--------------------------|--|--------------------------|---|------------|-------------|-----------|
| Start Torque | $\leq 0.001 \sim 0.005 \text{ N} \cdot \text{m}$ | Resolution | Programmable | Working Temp. | $-20^{\circ}\text{C} \sim 70^{\circ}\text{C}$ | Color | Singal | |
| Rotary Inertia | $1 \sim 6 \times 10^{-7} \text{ kg} \cdot \text{m}^2$ | Supply Voltage | 5v/8-29v | Storage Temp. | $-20^{\circ}\text{C} \sim 85^{\circ}\text{C}$ | | Line Driver | Push pull |
| Axial Load | 50N | Output Format | NPN/PNP Open Collector, Push Pull Line Driver, Voltage Output; | Relative Humidity | 30~85% (Non Condensing) | Red | Vcc | Vcc |
| Radial Load | 100N | Max. Current Consumption | 80mA(Line Driver) 120mA(Push pull) | Anti-vibration | 50 m/s^2 10-200Hz XYZ direction 2H | Black | 0v | 0v |
| Max.Rotary Speed | 6000rpm | Max Response Frequency | 50~150kHz | Anti-shock | 980 m/s^2 6ms XYZ direction 2t | Green | ChA+ | ChA+ |
| Net Weight | 0.25kg | Lift/fall Time | 200ns(Line Driver) $1 \mu\text{s}$ (Push pull) | Protect Grade | IP54 | White | ChB+ | ChB+ |
| | | | | | | Yellow | ChZ+ | ChZ+ |
| | | | | | | Brown | ChA- | / |
| | | | | | | Gray | ChB- | / |
| | | | | | | Orange | ChZ- | / |
| | | | | | | Shielding | GND | GND |

▷ Wave form/Dimensions


(Blind Hollow Shaft)



(Solid Shaft)

 CATALOG
 INCREMENTAL ENCODER
 GEAR INDUCTION ENCODER
 ABSOLUTE ENCODER
 DUAL OUTPUT ENCODER
 SERVO MOTOR ENCODER
 DRAW WIRE SENSOR
 MANUAL PULSES GENERATOR



Gear Induction Encoder

ADK-GR Serial Teeth quantity:128,256,512pcs

Gear Induction Encoder (Square Wave)

- ◆ The third generation product of CNC spindle encoder, high speed, large hollow, non-contact induction mode;
- ◆ Replace the traditional method of CNC lathe spindle encoder, save belt pulley mechanism;
- ◆ The maximum speed can be as high as 24000 rpm;
- ◆ The output signal is TTL standard gear;
- ◆ Module 0.3, 0.4, 0.5mm, optional;
- ◆ The number of teeth can be selected: 128, 256 and 512 teeth;
- ◆ There are two kinds of sensor head, small size, suitable for small installation space.
- ◆ It also adopts high protection level design (IP68), which can be used in harsh environment.
- ◆ The rotation position and speed can be detected by non-contact induction, without considering the mechanical wear.
- ◆ It can replace Jiarui IGS series



Gear Induction Encoder

Incremental Model High Rotary Speed

- ▶ Non-touch Induction Model, No mechanical wear;
- ▶ High response frequency:0-500KHZ;
- ▶ IP68 ;

ADK-GR Serial Gear Induction Encoder

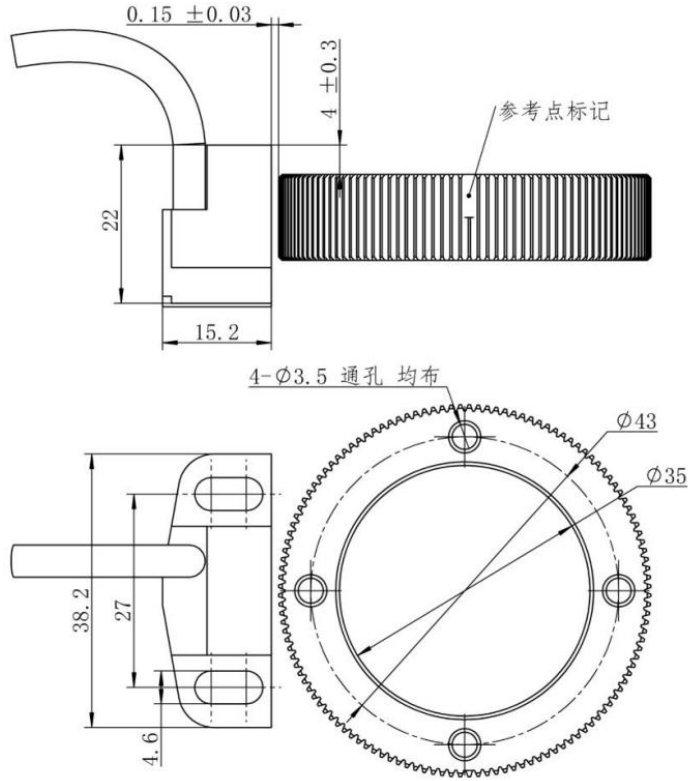
Model: ADK-GR-04/128-35/4-D1-F-08

ADK — GR — 04/128 — 35/4 — D1 — F/X — 08
 Gear Induction Module/Teeth Hole/Screw No. Sensor Head Model Square Wave 8-fold segmentation

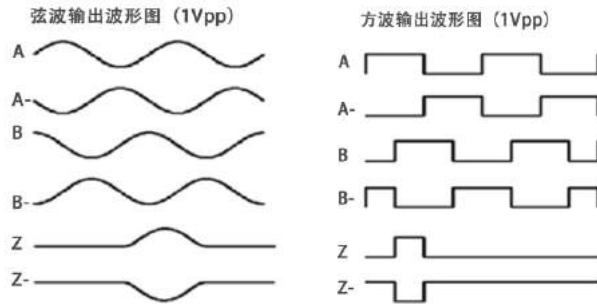
Technical Parameters

| | | | |
|--------------------------|--------------------------|-----------------------|-------------|
| Resolution | 1024ppr | Working Temp. | -20~80℃ |
| Supplying Voltage | DC5V±5% | Storage Temp. | -30~85℃ |
| Max. Current Consumption | 60mA | Detecting Distance | 0.15±0.03mm |
| Output Wave | Square Wave Sin. Wave | Size of Sensor Head | 38x16x22mm |
| Output Voltage Drop | Voh≥2.5v; Vol≤0.5v | Max. Rotary Speed | 20000rpm |
| Output Frequency | 0~500KHz | Weight of Sensor Head | 20g |
| Max. Phase Frequency | +25° | IP Grade | IP68 |
| Anti Vibration | 10G | Anti-Shock | 100G |

Installation Guide:



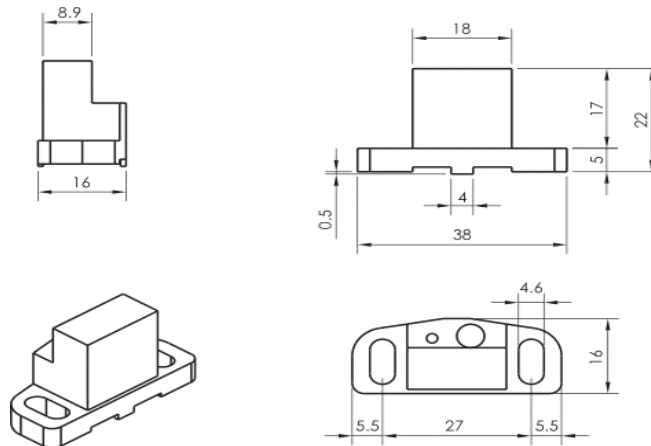
Wave Form



Connections

| Color | Output Signal | |
|--------|-----------------|---------------|
| | TTL Line Driver | D B Connector |
| White | CHA+ | 3 |
| Green | CHB+ | 6 |
| Yellow | CHZ+ | 10 |
| Red | Vcc | 1 |
| Black | GND | 2 |
| Blue | CHA- | 4 |
| Pink | CHB- | 7 |
| Orange | CHZ- | 11 |

Dimensions:



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INCREMENTAL ENCODER

GEAR INDUCTION ENCODER

ABSOLUTE ENCODER

DUAL OUTPUT ENCODER

SERVO MOTOR ENCODER

DRAW WIRE SENSOR

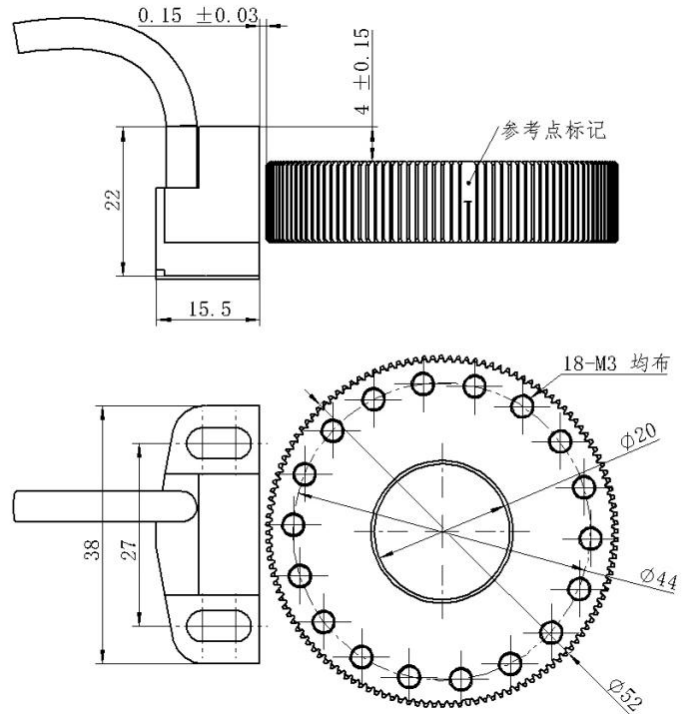
MANUAL PLUSES GENERATOR

ADK-GR Serial Gear Induction Encoder
Model: ADK-GR-04/128-20/18-D1-F/X-08

ADK — **GR** — **04/128** — **20/18** — **D1** — **F/X** — **08**
Gear Induction Module/Teeth **Hole Dia/Screw No.** **Sensor Head Model** **Square Wave** **8-fold segmentation**

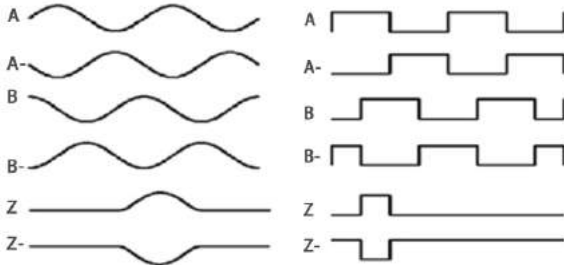
Technical Parameters

| | | | |
|---------------------------------|--------------------------|------------------------------|-------------|
| Resolution | 1024/2048/ 4096ppr | Working Temp. | -20~80℃ |
| Supplying Voltage | DC5V±5% | Storage Temp. | -30~85℃ |
| Max. Current Consumption | 60mA | Detecting Distance | 0.15±0.03mm |
| Output Wave | Square Wave Sin. Wave | Size of Sensor Head | 38x16x22mm |
| Output Voltage Drop | Voh≥2.5V; Vol≤0.5V | Max. Rotary Speed | 20000rpm |
| Output Frequency | 0~500KHz | Weight of Sensor Head | 20g |
| Max. Phase Frequency | +25° | IP Grade | IP68 |
| Anti Vibration | 10G | Anti-Shock | 100G |

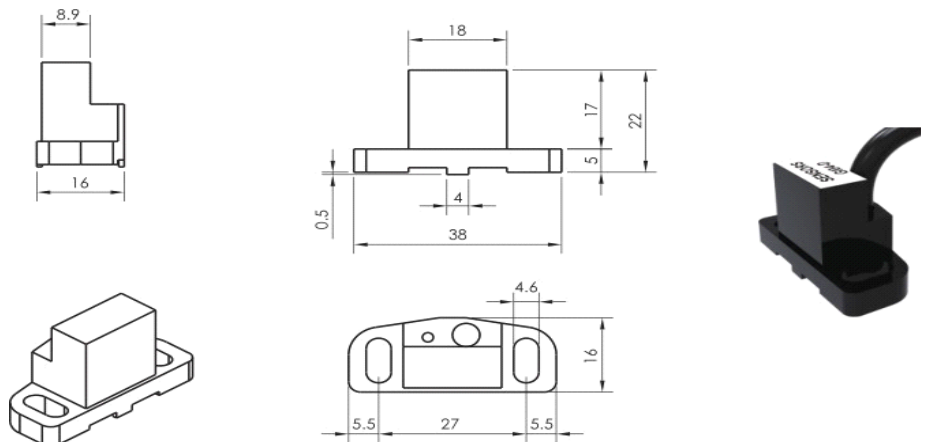
Installation Guide:

Wave Form

弦波输出波形图 (1Vpp)

方波输出波形图 (1Vpp)


Connections

| Color | Output Signal | |
|--------|-----------------|---------------|
| | TTL Line Driver | D B Connector |
| White | CHA+ | 3 |
| Green | CHB+ | 6 |
| Yellow | CHZ+ | 10 |
| Red | Vcc | 1 |
| Black | GND | 2 |
| Blue | CHA- | 4 |
| Pink | CHB- | 7 |
| Orange | CHZ- | 11 |

Dimensions:


Gear Induction Encoder

Speed and Position Controlling Sensor---Encoder



ADK-GR Serial Gear Induction Encoder

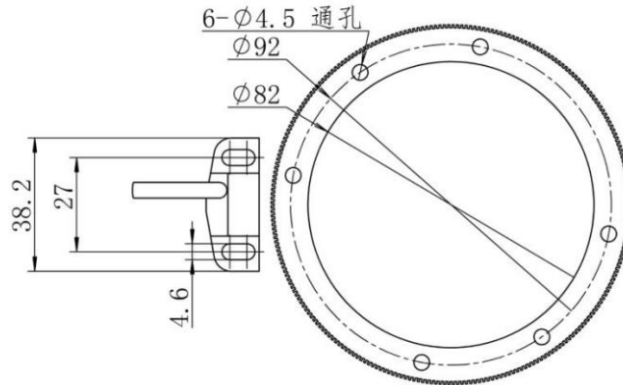
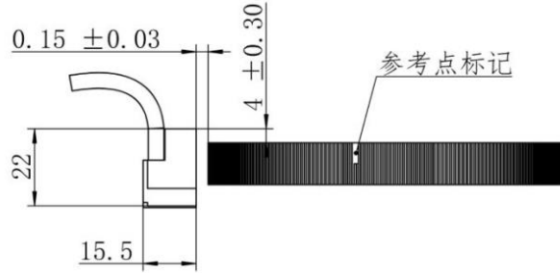
Model:ADK - GR - 04/256 - 82/6 - D1 - F/X - 16

ADK — GR — 04/256 — 82/6 — D1 — F/X — 16
 Gear Induction Module/Teeth Hole Dia/Screw No. Sensor Head Model Square Wave 16-fold segmentation

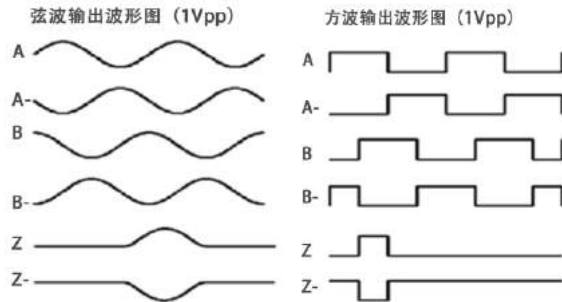
Technical Parameters

| | | | |
|--------------------------|--------------------------|-----------------------|-------------|
| Resolution | 4096ppr | Working Temp. | -20~80℃ |
| Supplying Voltage | DC5V±5% | Storage Temp. | -30~85℃ |
| Max. Current Consumption | 60mA | Detecting Distance | 0.15±0.03mm |
| Output Wave | Square Wave Sin. Wave | Size of Sensor Head | 38x16x22mm |
| Output Voltage Drop | Voh≥2.5v; Vol≤0.5v | Max. Rotary Speed | 20000rpm |
| Output Frequency | 0~500KHz | Weight of Sensor Head | 20g |
| Max. Phase Frequency | +25° | IP Grade | IP68 |
| Anti Vibration | 10G | Anti-Shock | 100G |

Installation Guide:



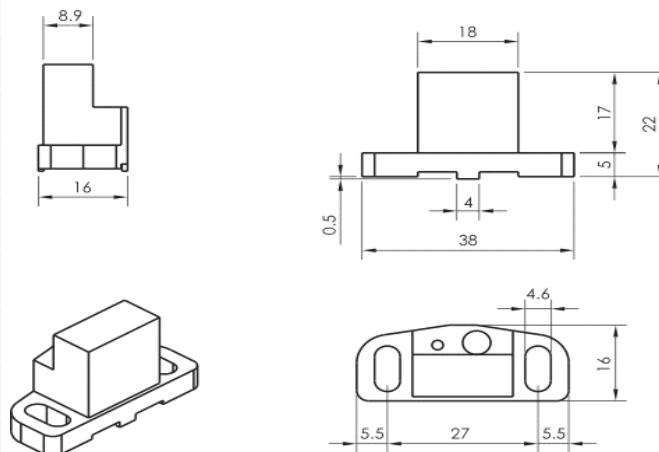
Wave Form



Connections

| Color | Output Signal | |
|--------|-----------------|---------------|
| | TTL Line Driver | D B Connector |
| White | CHA+ | 3 |
| Green | CHB+ | 6 |
| Yellow | CHZ+ | 10 |
| Red | Vcc | 1 |
| Black | GND | 2 |
| Blue | CHA- | 4 |
| Pink | CHB- | 7 |
| Orange | CHZ- | 11 |

Dimensions:



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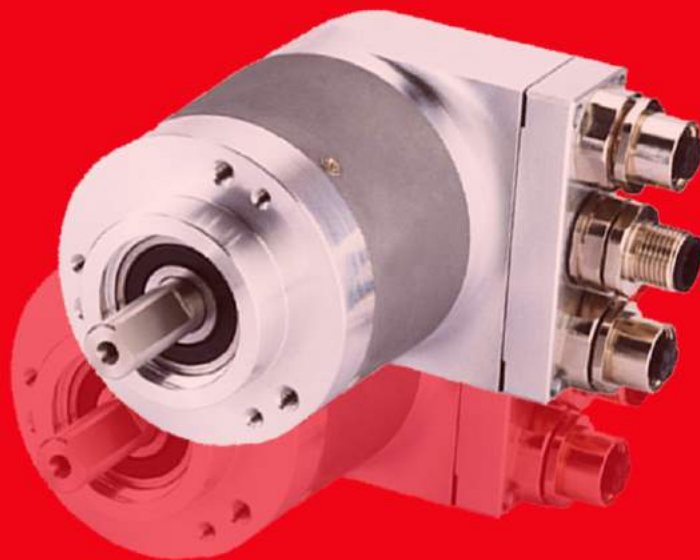
DUAL OUTPUT ENCODER

SERVO MOTOR ENCODER

DRAW WIRE SENSOR

MANUAL PLUSES GENERATOR

ABSOLUTE ENCODER



Absolute Encoder

| Absolute Encoder | | | | |
|------------------------|--|---|---|---|
| Series No. | ADK-EA Series Eco Absolute Encoder | ADK-CXA Series Serial Absolute Encoder | ADK-PRA Series Parallel Absolute Encoder | ADK-MNA Series Analog Absolute Encoder |
| Features | Setting zero at any position; High and low level available; Economical and reliable; Cost-effective; Reverse connection protection | Set the zero at any position; High and low level available; Function of direction selection; Equivalent replace P + F avs58 series, and Elco EAC58 series; Shock resistant, anti-interference, High reliability | Set the zero at any position; High and low level available; Equivalent replace Koyo TRD-MA Series, and Elco EAB50 Series; Shock resistant, anti-interference, High reliability | 4-20mA analog output, mostly used with draw wire box; measuring angle, length, and speed; Two options for 4mA and 20mA designs: 1.Short circuit the setting line to the power line at any position, The intermediate current is linear at 4mA and 20mA. 2) 4-20mA analog / MODBUS dual output through serial assistant |
| Interfaces | SSI, MODBUS-RTU | BISS SSI | Parallel, NPN/PNP/Push pull | 4-20m Analog, RS-485 Dual Output |
| Housing Dia. | 38mm | 38,50,58mm | 38,50,58mm | 38,50,58mm |
| Shaft Dia. | 6mm | 6,8,10,12mm | 6,8,10,12mm | 6,8,10,12mm |
| Max. Rotary Speed | 5000RPM | 5000RPM | 5000RPM | 5000RPM |
| Single Turn Resolution | 4096 | 8192 | 8192 | 8192 |
| Turns | Single turn | 4096 turns | 4096 turns | 4096 turns |
| Supplying Voltage | 5v, 8-36v | 5v, 8-36v | 5v, 8-36v | 5v, 8-36v |
| Code | Binary Code Gray Code Gray Excess Code BCD Code | Binary Code Gray Code Gray Excess Code BCD Code | Binary Code Gray Code Gray Excess Code BCD Code | Binary Code Gray Code Gray Excess Code BCD Code |
| Protection Grade | IP54/IP65/IP67 | IP54/IP65/IP67 | IP54/IP65/IP67 | IP54/IP65/IP67 |
| Certificates | ISO9001/ROHS/CE | ISO9001/ROHS/CE | ISO9001/ROHS/CE | ISO9001/ROHS/CE |

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GEAR INDUCTION ENCODER

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DRAW WIRE SENSOR

MANUAL PLUSES GENERATOR

瑞士钟表式金属齿轮传动结构



机械真多圈绝对值编码器
Multi-turn Absolute Encoder

艾迪科机械真多圈编码器：
机械真多圈编码器内部结构类似瑞士手表的齿轮传动结构，即一串与主机械轴逐级啮合的减速齿轮组，上下级齿轮与主机械轴之间有着整数倍的减速比关系。因此，通过识别每个齿轮的旋转角度位置，即可实现对编码器主机械轴旋转圈数的检测。

高稳定 抗冲击 永久寿命

IDENCODER Customizing Series

Bus-based Absolute Encoder

| Serial No. | ADK-MA Series Modbus Bus-based Encoder | ADK-CA Series CANopen Bus-Based Encoder | ADK-DP Series Profibus Bus-based Encoder | ADK-DA Series Devicenet Bus-based Encoder |
|-------------------------------|--|---|--|--|
| Features | Rs485 active sending ASCII protocol; RTU standard protocol is adopted; Short circuit protection; Anti shaft string, impact resistance and high protection; Mainly used in Hoisting industry; | Comply DSP-406 Standards; Associated with various PLC, and can also be used alone with the control panel. Can be used when multiple encoders are running at the same time; For example, ADK-CA Series has been widely applied in the multi wheel steering control of beam carrier; | High speed and low cost ; High transmission rate: 9.6K ~ 12mbps Ultra long transmission distance, the longest distance is 1000m. The repeater can be extended to 10km. Up to 127 sites can be attached. | Economical and efficient; Three bit rates :125/250/500kbit/s Max. up to 64 nodes in a network, Node address: from 0 to 63; The function of allowing multiple masters in a single network |
| Interfaces | Modbus | CANopen | Profibus-DP | Devicenet |
| Housing Dia. | 38,50,58mm | 38,50,58mm | 58mm | 58mm |
| Shaft Dia. | 6,8,10,12mm | 6,10,12mm | 10,12mm | 10,12mm |
| Max. Rotary Speed | 5000RPM | 5000RPM | 5000RPM | 5000RPM |
| Single Turn Resolution | 4096 | 8192 | 8192 | 8192 |
| Turns | 4096 | 4096 | 4096 | 4096 |
| Supplying Voltage | 5v, 8-36v | 5v, 8-36v | 5v, 8-36v | 5v, 8-36v |
| Protection Grade | IP54/IP65/IP67 | IP54/IP65/IP67 | IP54/IP65/IP67 | IP54/IP65/IP67 |
| Certificates | ISO9001/ROHS/CE | ISO9001/ROHS/CE | ISO9001/ROHS/CE | ISO9001/ROHS/CE |

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SERVO MOTOR ENCODER

DRAW WIRE SENSOR

MANUAL PLUSSES GENERATOR

CANopen 总线式绝对值编码器



艾迪科CANopen编码器，荣获2018年中国制造之美奖

CANopen是一种基于CAN的开放的、标准化的应用层协议，不仅定义了应用层和通信子协议，而且为可编程系统、不同硬件、接口、应用子协议定义了大量的行规。遵循这些行规开发出的CANopen设备将能够实现不同公司产品间的互操作。CANopen规范适用于各生产厂商的编码器产品，并对各生产产品的附加功能制定了标准。ADK系列的编码器遵守DSP-406设备规范。

编码器的工作模式（轮询模式或自动模式）、站点号、编码器的计数方向，单圈分辨率，圈数等参数进行编程设定。

CANopen总线式编码器传输速率相对MODBUS（1M）较快，为2M。

通用性强，可以与西门子PLC、三菱PLC、台达PLC等关联使用，亦可与控制板单独使用。

广泛用于多个编码器同时应用的场所，运梁车车轮轴转向的应用在国内艾迪科CANopen编码器产品占比高达60%

Multi-Turn Absolute Encoder

| Seires No. | ADK-MBA Series Multi-turn Encoder(Battery Type) | ADK-MPA Series Multi-turn Encoder(Plastic Gear) | ADK-MJA Series Multi-turn Encoder(Copper Gear) |
|-----------------------------|--|--|---|
| Multi-turn Absolute Encoder | | | |
| Features | Battery Life 5 years; No mechanical gear, no critical point error, no program error correction compensation | High cost performance, gradually correction program, no critical point error; Permanent memory, no worry about the memory of turns off after power failure; | High reliability, gradually correction program, no critical point error; Permanent memory, no worry about the memory of turns off after power failure; Long life; The copper material of multi turn gear is good and the structure is precise; |
| Interfaces | 4-20mA,MODBUS-ASCII/-RTU.SSI, | 4-20mA,BISS,SSI,MODBUS-RTU;Canopen | 4-20mA,BISS,SSI,MODBUS-RTU;Canopen |
| Housing Dia. | 38,50,58mm | 38,50,58mm | 58mm |
| Shaft Dia. | 6,8,10,12mm | 6,8,10,12mm | 10,12mm |
| Max. Rotary Speed | 5000RPM | 5000RPM | 5000RPM |
| Single Turn Resolution | 4096 | 8192 | 8192 |
| Turns | 65536 | 4096 | 4096 |
| Supplying Voltage | 5v,8-36v | 5v,8-36v | 5v,8-36v |
| Code | Binary Code Gray Code Gray Excess Code BCD Code | Binary Code Gray Code Gray Excess Code BCD Code | Binary Code Gray Code Gray Excess Code BCD Code |
| Protection Grade | IP54/IP65/IP67 | IP54/IP65/IP67 | IP54/IP65/IP67 |
| Certificates | ISO9001/ROHS/CE | ISO9001/ROHS/CE | ISO9001/ROHS/CE |

艾迪科电池多圈绝对值编码器

1. 电池寿命5年;
2. 无机机械齿轮, 无临界点错差, 无程序纠错补偿, 性能可靠;
3. 最小尺寸38mm;
4. 圈数: 0-16 bit圈数(65536圈) 单圈分辨率: 12 bit / 4096;
5. 电压: 5V/8-30V;
6. 4-20mA,BISS,SSI,Modbus-RTU;Canopen
7. 可以在任意位置设置任意值, 方便同步校正的应用;

电池多圈绝对值编码器

无机机械齿轮, 无临界点错差, 无程序纠错补偿, 性能可靠



CATALOG
INCREMENTAL ENCODER
GEAR INDUCTION ENCODER
ABSOLUTE ENCODER
DUAL OUTPUT ENCODER
SERVO MOTOR ENCODER
DRAW WIRE SENSOR
MANUAL PLUSSES GENERATOR

瑞士钟表式金属齿轮传动结构

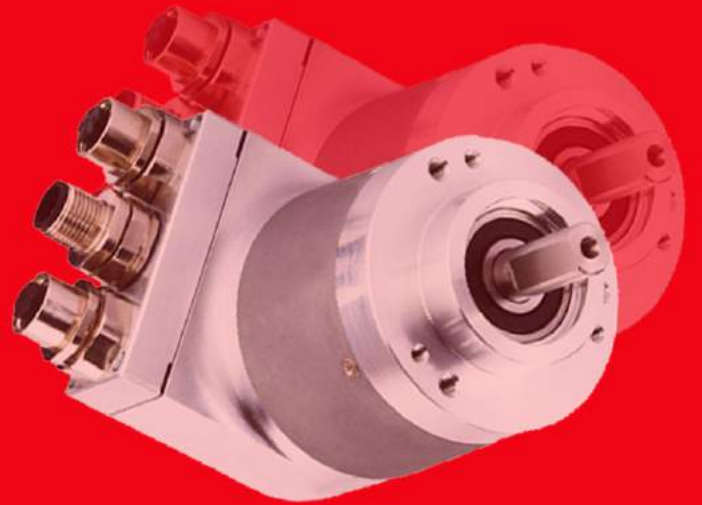


机械真多圈绝对值编码器

机械真多圈编码器内部结构类似瑞士手表的齿轮传动结构，即一串与主机械轴逐级啮合的减速齿轮组，上下级齿轮与主机械轴之间有着整数倍的减速比关系。因此，通过识别每个齿轮的旋转角度位置，即可实现对编码器主机械轴旋转圈数的检测。


高稳定 抗冲击 永久寿命

艾迪科首创纯铜齿轮盒，使得逐级齿轮啮合更加紧密贴切，耐磨度、抗冲击、抗震动性大大提高，从而保证编码器高精度长久可靠的运行。同时，这类编码器输出的绝对位置反馈，是基于当前机械物理传动机构直接测得的，而不是根据历史记录计算出来的，无需电池，更不会受到断电、线路干扰、程序错误等外界环境的影响，从位置检测的源头保证了信号反馈的可靠性。



Industry Ethernet Absolute Encoder

Industry Ethernet Absolute Encoder



| EtherNet Absolute Encoder |  |  |
|-------------------------------|---|---|
| Serial No. | ADK-PN Series Profinet Ethernet Absolute Encoder | ADK-ECT Series EtherCAT Ethernet Absolute Encoder |
| Features | Profinet: Real-time Ethernet for industrial Automation Profinet implements the interfacing to peripherals. It defines the communication with field connected peripheral devices. Its basis is a cascading real-time concept. Profinet defines the entire data exchange between controllers (called "IO-Controllers") and the devices (called "IO-Devices"), as well as parameter setting and diagnosis. The Profinet protocol is designed for the fast data exchange between Ethernet-based field devices and follows the provider-consumer model. | EtherCAT (Ethernet for Control Automation Technology) is an Ethernet-based fieldbus system, invented by Beckhoff Automation. The protocol is standardized in IEC 61158 and is suitable for both hard and soft real-time computing requirements in automation technology. The goal during development of EtherCAT was to apply Ethernet for automation applications requiring short data update times (also called cycle times; $\leq 100 \mu s$) with low communication jitter (for precise synchronization purposes; $\leq 1 \mu s$) and reduced hardware costs. |
| Interfaces | Profinet | EtherCAT |
| Housing Dia. | 58mm | 58mm |
| Shaft Dia. | 10,12mm | 10,12mm |
| Max. Rotary Speed | 5000RPM | 5000RPM |
| Single Turn Resolution | 8192 | 8192 |
| Turns | 4096 | 4096 |
| Supplying Voltage | 5v,8-36v | 5v,8-36v |
| Output Code | Binary Code Gray Code Gray Excess Code BCD Code | Binary Code Gray Code Gray Excess Code BCD Code |
| Protection Grade | IP54/IP65/IP67 | IP54/IP65/IP67 |
| Certificates | ISO9001/ROHS/CE | ISO9001/ROHS/CE |

EtherCAT (以太网控制自动化技术) 是一个以以太网为基础的开放架构的现场总线系统, EtherCAT名称中的CAT为Control Automation Technology首字母的缩写;最初由德国倍福自动化有限公司研发。EtherCAT为系统的实时性能和拓扑的灵活性树立了新的标准,同时,它还符合甚至降低了现场总线的使用成本。EtherCAT的特点还包括高精度设备同步,可选线缆冗余,和功能性安全协议(SIL3)。

EtherCat以太网绝对值编码器



Industry Ethernet Absolute Encoder

| EtherNet Absolute Encoder |  |  |
|---------------------------|---|---|
| Serial No. | ADK-PL Series PowerLink Ethernet Absolute Encoder | ADK-MT Series Modbus-TCP Ethernet Absolute Encoder |
| Features | POWERLINK = CANopen+Ethernet is a real-time protocol for standard Ethernet. Ethernet Powerlink expands Ethernet with a mixed polling and timeslicing mechanism. This provides: Guaranteed transfer of time-critical data in very short isochronic cycles with configurable response time; Time-synchronisation of all nodes in the network with very high precision of sub-microseconds Transmission of less timecritical data in a reserved asynchronous channel Modern implementations reach cycle-times of under 200 µs and a time-precision (jitter) of less than 1 µs. | MODBUS TCP/IP is a variant of the MODBUS family of simple, vendor-neutral communication protocols intended for supervision and control of automation equipment. Specifically, it covers the use of MODBUS messaging in an 'Intranet' or 'Internet' environment using the TCP/IP protocols. The most common use of the protocols at this time are for Ethernet attachment of PLC's, I/O modules, and 'gateways' to other simple field buses or I/O networks. |
| Interfaces | POWERLINK | MODBUS-TCP |
| Housing Dia. | 58mm | 58mm |
| Shaft Dia. | 10,12mm | 10,12mm |
| Max. Rotary Speed | 5000RPM | 5000RPM |
| Single Turn Resolution | 8192 | 8192 |
| Turns | 4096 | 4096 |
| Supplying Voltage | 5v,8-36v | 5v,8-36v |
| Output Code | Binary Code Gray Code Gray Excess Code BCD Code | Binary Code Gray Code Gray Excess Code BCD Code |
| Protection Grade | IP54/IP65/IP67 | IP54/IP65/IP67 |
| Certificates | ISO9001/ROHS/CE | ISO9001/ROHS/CE |

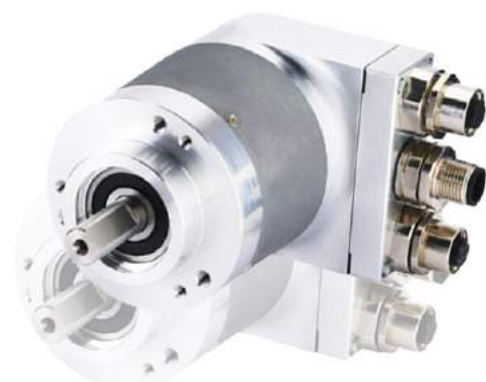
POWERLINK = CANopen+Ethernet

鉴于以太网的蓬勃发展及CANopen在自动化领域里的广泛应用基础POWERLINK 融合了这两项技术的优点和缺点，即拥有了Ethernet的高速、开放性接口，以及 CANopen在工业领域良好的SDO和PDO数据定义。

POWERLINK就是 Ethernet 上的CANopen，物理层、数据层使用了Ethernet介质，应用层则保留了原有的SDO和PDO对象字典的结构，这样的好处在于：

- POWERLINK 无需做较多的改动即可实现；
- 保护原有投资的利益；
- 开放性的接口；

POWERLINK以太网绝对值编码器



CATALOG

INCREMENTAL ENCODER

GEAR INDUCTION ENCODER

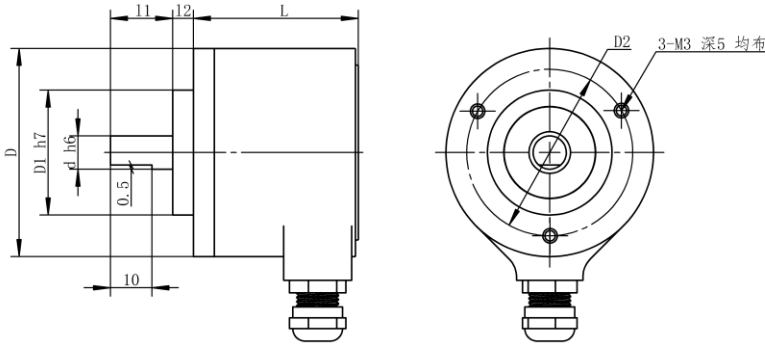
ABSOLUTE ENCODER

DUAL OUTPUT ENCODER

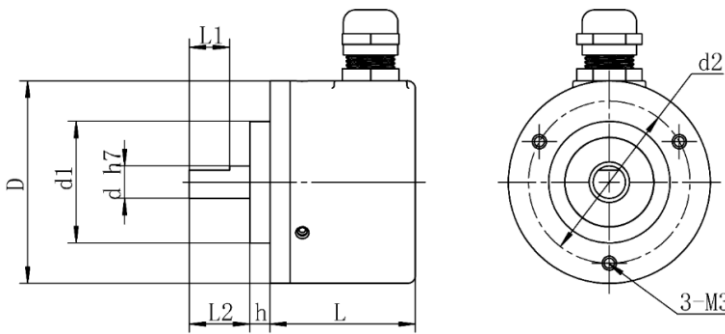
SERVO MOTOR ENCODER

DRAW WIRE SENSOR

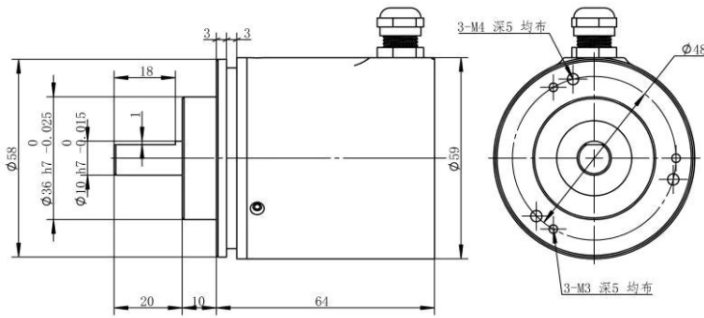
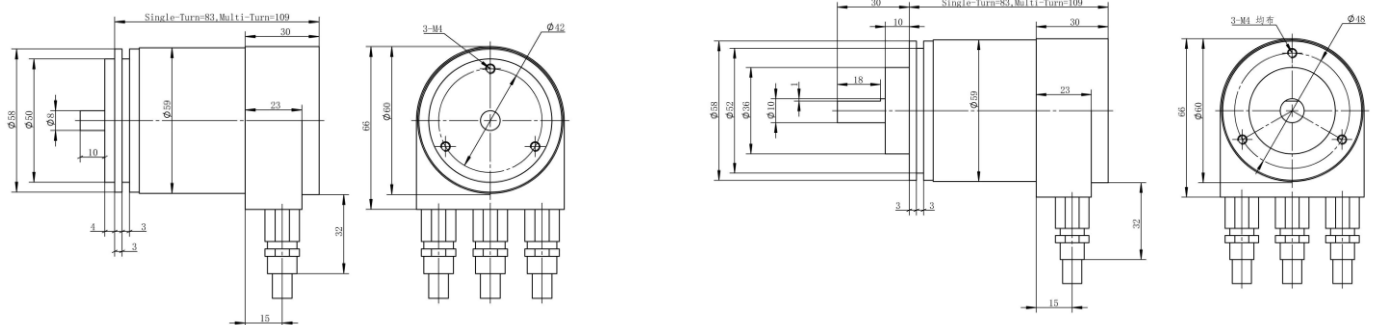
MANUAL PLUSES GENERATOR

Dimensions:


| | | | |
|----|----|----|----|
| D | 38 | 50 | 58 |
| d | 6 | 8 | 10 |
| D1 | 20 | 30 | 36 |
| D2 | 30 | 40 | 48 |
| L | 35 | 40 | 52 |
| 11 | 15 | 15 | 20 |
| 12 | 5 | 5 | 10 |

ADK-EA Series Eco Absolute Encoder


| | | | |
|----|----|----|----|
| D | 38 | 50 | 58 |
| d | 6 | 8 | 10 |
| d1 | 20 | 30 | 36 |
| d2 | 30 | 40 | 48 |
| h | 5 | 5 | 10 |
| L | 35 | 35 | 44 |
| L1 | 10 | 10 | 18 |
| L2 | 14 | 15 | 20 |

ADK-CXA Series Serial BISS/SSI Encoder ADK-PRA Series Parallel Absolute Encoder ADK-MNA Series Analog Absolute Encoder
ADK-MA Series Modbus Bus-based Encoder ADK-MBA Series Multi-turn Encoder(Battery Type)

ADK-CA Series CANopen Bus-Based Encoder ADK-MPA Series Multi-turn Encoder(Plastic Gear)
ADK-MJA Series Multi-turn Encoder(Copper Gear)

ADK-DP Series Profibus Bus-based Encoder
ADK-DA Series DeviceNet Bus-based Encoder
ADK-PN Series Profinet Ethernet Absolute Encoder
ADK-ECA Series EtherCat Ethernet Absolute Encode

 CATALOG
 INCREMENTAL ENCODER
 GEAR INDUCTION ENCODER
 ABSOLUTE ENCODER
 DUAL OUTPUT ENCODER
 SERVO MOTOR ENCODER
 DRAW WIRE SENSOR
 MANUAL PULSES GENERATOR

ADK-ER Series: Absolute Encoder For CNC Turret



Permanent magnet and magnetic induction element are used to convert the angular displacement of the shaft into electric pulse signal through magnetolectric conversion.

Vibration resistance, corrosion resistance, pollution resistance, small volume, low cost, high reliability.

Single Turn Absolute Encoder

Housing Dia: 42mm,45mm,50mm,58mm;

Station: 6,8,10,12,48;

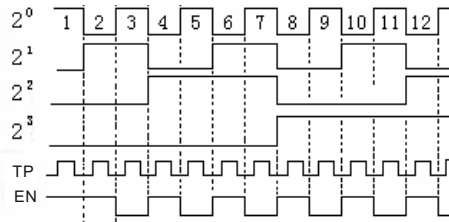
Output: 1 R:Parallel S:SSI C:CANopen, P:Profibus

2 N:NPN Open Collector C:PNP Open Collector L:Line Driver E: Voltage Output P: Push Pull

Voltage: 1:5VDC;2:12VDC;3:24VDC; 4:8~29VDC;

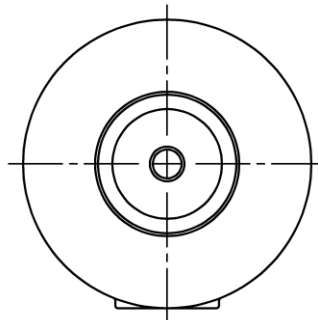
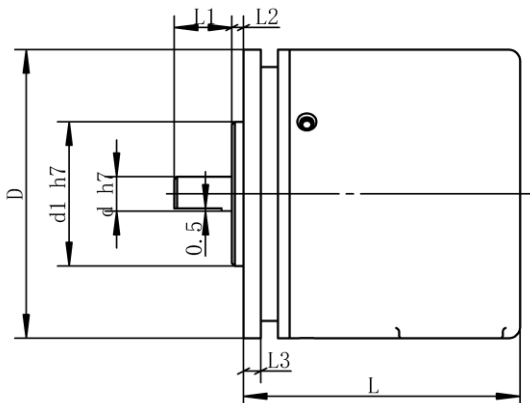
| Mechanical parameters | | Electrical Parameters | | Environmental parameters | | Connections | |
|-----------------------|---|-----------------------|--|--------------------------|--|-------------|----------------|
| Starting Torque | $\leq 1.5 \times 10^{-3} \text{N} \cdot \text{m}$ | Stations | 6,8,10,12,48 | Working Temp. | -20°C~70°C | Color | Signal |
| Moment of inertia | $9 \times 10^{-8} \text{kg} \cdot \text{m}^2$ | Supply Voltage | 24v,8-29v | Storage Temp. | -20°C~85°C | | |
| Axial Load | 10N | Output Format | 1 R:Parallel S: SSI C: CANopen P: ProfiBus 2 N:NPN Open Collector C:PNP Open Collector L:Line Driver E:Voltage Output P: Push Pull | Relative Humidity | 30-85% (No condensation) | Red | D0 |
| Radial Load | 20N | | | Anti Vibration | 50m/s ² 10-200Hz XYZ each 2H | Black | GND |
| Max.Rotary Speed | 5000rpm | | | Anti Shock | 980m/s ² 6ms XYZ each 2H | Green | D0 |
| Net Weight | 0.25kg | | | Protection Grade | IP54 | Purple | D1 |
| | | | | | | Blue | D2 |
| | | | | | | Yellow | D3 |
| | | | | | | Gray | EN |
| | | | | | | White | TP |
| | | | | | | Shielding | Shielding Line |

Output Wave



Note: the absolute value parallel output encoder divides the circumference into corresponding equal intervals according to the required accuracy, and each interval is represented by a fixed coding combination of several bit signals, so that the absolute position of the encoder can still be remembered after power failure.

Dimensions



| | | | | | |
|----|----|------|----|----|----|
| D | 42 | 45 | 50 | 50 | 58 |
| d | 6 | 8 | 8 | 10 | 10 |
| d1 | 24 | 40 | 25 | 30 | 36 |
| L1 | 12 | 14 | 10 | 15 | 20 |
| L2 | 6 | 3 | 2 | 5 | 10 |
| L3 | 3 | 4 | 3 | 3 | 3 |
| L | 60 | 62.5 | 48 | 49 | 44 |

ADK-DIA Dual Output Encoder



Dual Output Encoder: Monitoring the speed and position together
Incremental Output, monitoring the speed, Absolute Output Monitoring the Position;

Housing Dia. :58mm; Shaft Dia: 10mm;
Incremental Output Resolution: 4096ppr, Absolute Modbus Output Resolution:16384ppr;
Supply Voltage: 8-32v

Incremental & Absolute Dual Output Encoder:

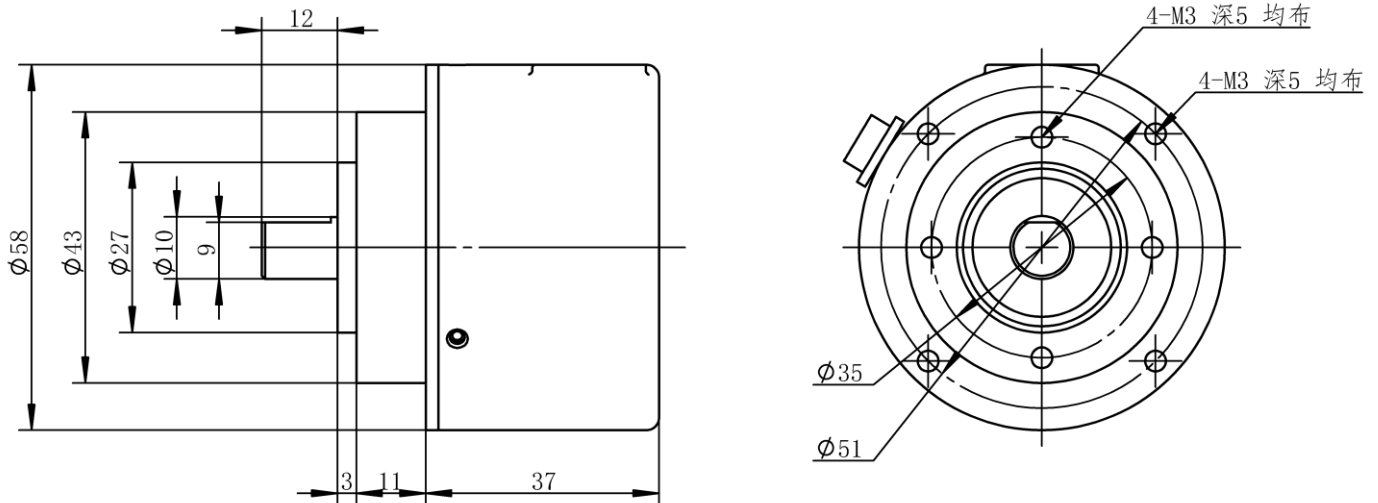
Output Format: 1 M:Modbus

2 N:NPN Open Collector C:PNP Open Collector L:Line Driver E:Voltage Output P: Push Pull

Supply Voltage: 8~32VDC;

| Mechanical parameters | | Electrical Parameters | | Environmental parameters | | Connections | |
|-----------------------|---|-----------------------|---|--------------------------|--|-------------|--------|
| Starting Torque | 9.8×10^{-4} | Stations | Incremental:4096ppr, Absolute:16384ppr; | Working Temp. | -20°C~70°C | Color | Signal |
| Moment of inertia | $9 \times 10^{-8} \text{kg} \cdot \text{m}^2$ | Supply Voltage | 8-32v | Storage Temp. | -20°C~85°C | Red | Vcc |
| Axial Load | 19.6N | Output Format | 1 M:Modbus 2 N:NPN Open Collector C:PNP Open Collector L:Line Driver E:Voltage Output P: Push Pull | Relative Humidity | 30-85% (No condensation) | Black | GND |
| Radial Load | 29.4N | | | Anti Vibration | 50m/s ² 10-200Hz XYZ each 2H | Green | A |
| Max.Rotary Speed | 5000rpm | | | Anti Shock | 980m/s ² 6ms XYZ each 2H | White | B |
| Net Weight | 0.25kg | | | Protection Grade | IP54 | Yellow | Z |
| | | | | | | Brown | A- |
| | | | | | | Gray | B- |
| | | | | | | Orange | Z- |
| | | | | | | Blue | RS485A |
| | | | | | | Pink | RS485B |

Dimensions:



CATALOG
INCREMENTAL ENCODER
GEAR INDUCTION ENCODER
ABSOLUTE ENCODER
DUAL OUTPUT ENCODER
SERVO MOTOR ENCODER
DRAW WIRE SENSOR
MANUAL PLUSSES GENERATOR



Servo Motor Encoder

ADK-SVZ35 Series Servo Motor Encoder

Widely used in automatic control field such as AC servo unit, especially suitable for matching with servo motor

Internal use of ASIC devices, high reliability, long life, strong anti-interference. The taper shaft is designed to be easy to slip, with small installation volume, wide resolution range, no signal regulation is required, with A B Z U V W six channel signal output, which can be connected with standard line drive (26LS31) RS422, can provide 12 output signals, compatible with TTL;

Housing Dia. : 35mm, Shaft: 09mm(Taper:1:10);

Supply Voltage : 5v,5-26v;

Resolution : 1000,1024,1250,2000,2048, 2500,4000,4096;

Output channels: 2 channels A B;

Zero Position Signal: S= No Z channel; M= with Z Signal output "1"; N=with Z Signal output "0" ;

Output Format: T=Voltage Output NPN+R; C=NPN Open Collector; CP=PNP Open Collector;

P=Push Pull L=Line Driver(26L31) K=Line Driver(7272) V=Line Driver OC(7273)

Pole : 2P=2 pairs of Poles; 3P=3 Pairs of Poles; 5P=5 Pairs of Poles



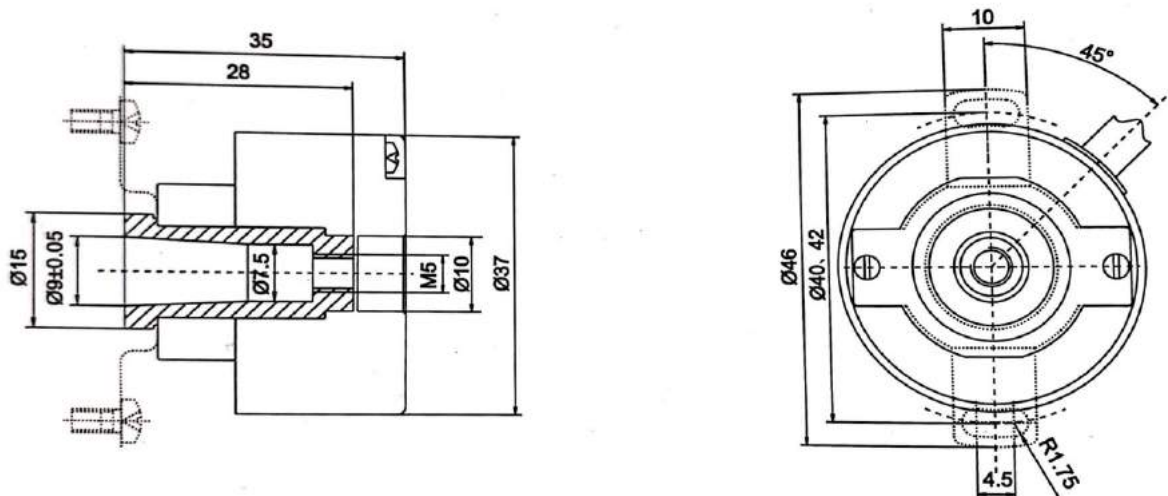
Technical Parameter

| Mechanical parameters | | Environmental parameters | | Electrical Parameters | | | | |
|-----------------------|--------------------------------------|--------------------------|-------------------|-------------------------|----------------|----------------|---------------|---------------|
| Starting Torque | ≤0.02Nm | Working Temp. | -40°C~85°C | Output Format | Open Collector | Voltage Output | Push Pull | Line Driver |
| Moment of inertia | 4x10 ⁻⁸ kg·m ² | Storage Temp. | -40°C~85°C | Supply Voltage | 5-26v | 5-26v | 5v±0.25,5-26v | 5v±0.25,5-26v |
| Axial Load | 10N | Relative Humidity | 30-85% | Current Consumable | ≤80mA | ≤80mA | ≤80mA | ≤160mA |
| Radial Load | 10N | Anti Vibration | 50G/11ms | Load Current | 40mA | 40mA | 40mA | 60mA |
| Max.Rotary Speed | 6000rpm | Anti Shock | 100G 10-2000Hz | Output HL | Min.Vcc*70% | Min.Vcc-2.5v | Min.Vcc-1.5v | Min.3.4v |
| Net Weight | 0.12kg | Protection Grade | IP54 | Output LL | Max.0.4v | Max.0.4v | Max.0.8v | Max.0.4v |
| | | | | Raising Time Tr | Max 1μs | Max 1μs | Max 1μs | Max 200ns |
| | | | | Fall Time Tf | Max 1μs | Max 1μs | Max 1μs | Max 200ns |
| | | | | Max. Response Frequency | 500kHz | 500kHz | 500kHz | 500kHz |

Connection

| | | | | | | | | | | | | | | |
|--------|-------|-------|--------|---------|---------|---------|-------|------|--------|---------|---------|---------|-----|-------|
| Signal | A | B | Z | A- | B- | Z- | U | V | W | U- | V- | W- | Vcc | GND |
| Color | Green | White | Yellow | GRN/WHT | WHT/BLK | YEL/BLK | Brown | Gray | Orange | BRW/BLK | GRY/BLK | ORG/BLK | Red | Black |

Dimension:



ADK-SVZ48 Series Servo Motor Encoder

Widely used in automatic control field such as AC servo unit, especially suitable for matching with servo motor



Internal use of ASIC devices, high reliability, long life, strong anti-interference. The taper shaft is designed to be easy to slip, with small installation volume, wide resolution range, no signal regulation is required, with A B Z U V W six channel signal output, which can be connected with standard line drive (26LS31) RS422, can provide 12 output signals, compatible with TTL;

Housing Dia. : 35mm, Shaft: 09mm(Taper:1:10);

Supply Voltage: 5v, 5-26v;

Resolution: 1000, 1024, 1250, 2000, 2048, 2500, 4000, 4096;

Output channels: 2 channels A B;

Zero Position Signal: S= No Z channel; M= with Z Signal output "1"; N=with Z Signal output "0" ;

Output Format: T=Voltage Output NPN+R; C=NPN Open Collector; CP=PNP Open Collector;

P=Push Pull L=Line Driver(26L31) K=Line Driver(7272) V=Line Driver OC(7273)

Pole: 2P=2 pairs of Poles; 3P=3 Pairs of Poles; 5P=5 Pairs of Poles

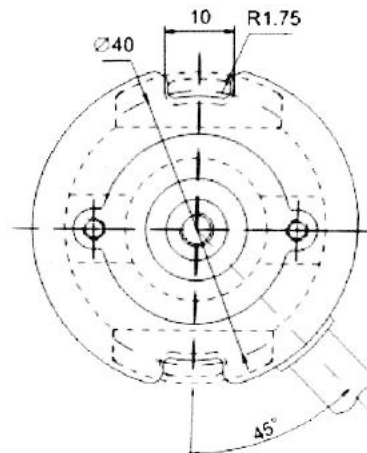
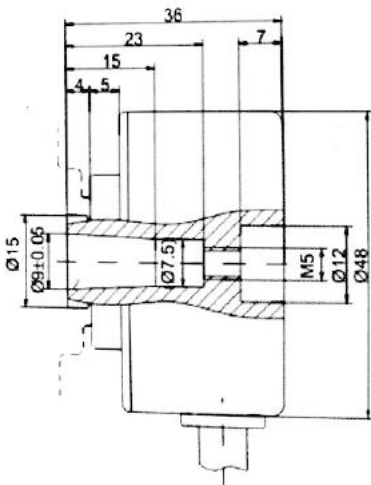
Technical Parameter

| Mechanical parameters | | Environmental parameters | | Electrical Parameters | | | | |
|-----------------------|--|--------------------------|-------------------|-------------------------|----------------|----------------|----------------|----------------|
| Starting Torque | ≤ 0.02Nm | Working Temp. | -40°C~85°C | Output Format | Open Collector | Voltage Output | Push Pull | Line Driver |
| Moment of inertia | 4x10 ⁻⁸ kg · m ² | Storage Temp. | -40°C~85°C | Supply Voltage | 5-26v | 5-26v | 5v±0.25, 5-26v | 5v±0.25, 5-26v |
| Axial Load | 10N | Relative Humidity | 30-85% | Current Consumable | ≤80mA | ≤80mA | ≤80mA | ≤160mA |
| Radial Load | 10N | Anti Vibration | 50G/11ms | Load Current | 40mA | 40mA | 40mA | 60mA |
| Max.Rotary Speed | 6000rpm | Anti Shock | 100G 10-2000Hz | Output HL | Min.Vcc*70% | Min.Vcc-2.5v | Min.Vcc-1.5v | Min.3.4v |
| Net Weight | 0.12kg | Protection Grade | IP54 | Output LL | Max.0.4v | Max.0.4v | Max.0.8v | Max.0.4v |
| | | | | Raising Time Tr | Max 1μs | Max 1μs | Max 1μs | Max 200ns |
| | | | | Fall Time Tf | Max 1μs | Max 1μs | Max 1μs | Max 200ns |
| | | | | Max. Response Frequency | 500kHz | 500kHz | 500kHz | 500kHz |

Connection

| Signal | A | B | Z | A- | B- | Z- | U | V | W | U- | V- | W- | Vcc | GND |
|--------|-------|-------|--------|---------|---------|---------|-------|------|--------|---------|---------|---------|-----|-------|
| Color | Green | White | Yellow | GRN/WHT | WHT/BLK | YEL/BLK | Brown | Gray | Orange | BRW/BLK | GRY/BLK | ORG/BLK | Red | Black |

Dimension:



ADK-SV35 Series Servo Motor Encoder

Widely used in automatic control field such as AC servo unit, especially suitable for matching with servo motor



Internal use of ASIC devices, high reliability, long life, strong anti-interference. The taper shaft is designed to be easy to slip, with small installation volume, wide resolution range, no signal regulation is required, with A B Z U V W six channel signal output, which can be connected with standard line drive (26LS31) RS422, can provide 12 output signals, compatible with TTL;

Housing Dia. : 35mm, Shaft: 5,6,8mm;

Supply Voltage: 5v,5-26v;

Resolution: 1000,1024,1250,2000,2048, 2500,4000,4096;

Output channels: 2 channels A B;

Zero Position Signal: S= No Z channel; M= with Z Signal output "1"; N=with Z Signal output "0" ;

Output Format: T=Voltage Output NPN+R; C=NPN Open Collector; CP=PNP Open Collector;

P=Push Pull L=Line Driver(26L31) K=Line Driver(7272) V=Line Driver OC(7273)

Pole: 2P=2 pairs of Poles; 3P=3 Pairs of Poles; 5P=5 Pairs of Poles

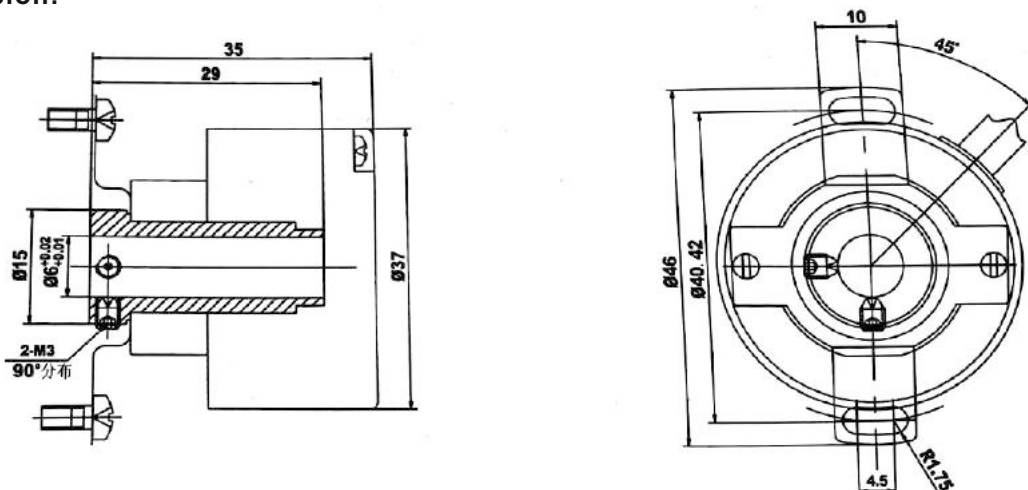
Technical Parameter

| Mechanical parameters | | Environmental parameters | | Electrical Parameters | | | | |
|-----------------------|--|--------------------------|-------------------|-------------------------|----------------|----------------|---------------|---------------|
| Starting Torque | ≤0.02Nm | Working Temp. | -40°C~85°C | Output Format | Open Collector | Voltage Output | Push Pull | Line Driver |
| Moment of inertia | 4x10 ⁻⁸ kg · m ² | Storage Temp. | -40°C~85°C | Supply Voltage | 5-26v | 5-26v | 5v±0.25,5-26v | 5v±0.25,5-26v |
| Axial Load | 10N | Relative Humidity | 30-85% | Current Consumable | ≤80mA | ≤80mA | ≤80mA | ≤160mA |
| Radial Load | 10N | Anti Vibration | 50G/11ms | Load Current | 40mA | 40mA | 40mA | 60mA |
| Max.Rotary Speed | 6000rpm | Anti Shock | 100G 10-2000Hz | Output HL | Min.Vcc*70% | Min.Vcc-2.5v | Min.Vcc-1.5v | Min.3.4v |
| Net Weight | 0.12kg | Protection Grade | IP54 | Output LL | Max.0.4v | Max.0.4v | Max.0.8v | Max.0.4v |
| | | | | Raising Time Tr | Max 1μs | Max 1μs | Max 1μs | Max 200ns |
| | | | | Fall Time Tf | Max 1μs | Max 1μs | Max 1μs | Max 200ns |
| | | | | Max. Response Frequency | 500kHz | 500kHz | 500kHz | 500kHz |

Connection

| | | | | | | | | | | | | | | |
|--------|-------|-------|--------|---------|---------|---------|-------|------|--------|---------|---------|---------|-----|-------|
| Signal | A | B | Z | A- | B- | Z- | U | V | W | U- | V- | W- | Vcc | GND |
| Color | Green | White | Yellow | GRN/WHT | WHT/BLK | YEL/BLK | Brown | Gray | Orange | BRW/BLK | GRY/BLK | ORG/BLK | Red | Black |

Dimension:



CATALOG
 INCREMENTAL ENCODER
 GEAR INDUCTION ENCODER
 ABSOLUTE ENCODER
 DUAL OUTPUT ENCODER
 SERVO MOTOR ENCODER
 DRAW WIRE SENSOR
 MANUAL PLUSSES GENERATOR

ADK-SV48 Series Servo Motor Encoder

Widely used in automatic control field such as AC servo unit, especially suitable for matching with servo motor



Internal use of ASIC devices, high reliability, long life, strong anti-interference. The taper shaft is designed to be easy to slip, with small installation volume, wide resolution range, no signal regulation is required, with A B Z U V W six channel signal output, which can be connected with standard line drive (26LS31) RS422, can provide 12 output signals, compatible with TTL;

Housing Dia. : 35mm, Shaft: 6,8,10mm;

Supply Voltage: 5v,5-26v;

Resolution: 1000,1024,1250,2000,2048, 2500,4000,4096;

Output channels: 2 channels A B;

Zero Position Signal: S= No Z channel; M= with Z Signal output "1"; N=with Z Signal output "0" ;

Output Format: T=Voltage Output NPN+R; C=NPN Open Collector; CP=PNP Open Collector;

P=Push Pull L=Line Driver(26L31) K=Line Driver(7272) V=Line Driver OC(7273)

Pole: 2P=2 pairs of Poles; 3P=3 Pairs of Poles; 5P=5 Pairs of Poles

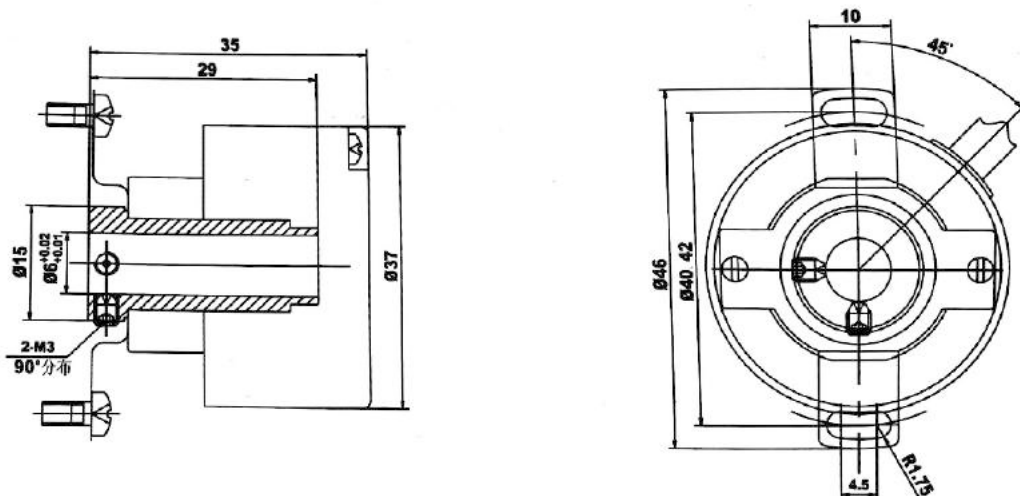
Technical Parameter

| Mechanical parameters | | Environmental parameters | | Electrical Parameters | | | | |
|-----------------------|--------------------------------------|--------------------------|-------------------|-------------------------|----------------|----------------|---------------|---------------|
| Starting Torque | ≤0.02Nm | Working Temp. | -40°C~85°C | Output Format | Open Collector | Voltage Output | Push Pull | Line Driver |
| Moment of inertia | 4x10 ⁻⁸ kg·m ² | Storage Temp. | -40°C~85°C | Supply Voltage | 5-26v | 5-26v | 5v±0.25,5-26v | 5v±0.25,5-26v |
| Axial Load | 10N | Relative Humidity | 30-85% | Current Consumable | ≤80mA | ≤80mA | ≤80mA | ≤160mA |
| Radial Load | 10N | Anti Vibration | 50G/11ms | Load Current | 40mA | 40mA | 40mA | 60mA |
| Max.Rotary Speed | 6000rpm | Anti Shock | 100G 10-2000Hz | Output HL | Min.Vcc*70% | Min.Vcc-2.5v | Min.Vcc-1.5v | Min.3.4v |
| Net Weight | 0.12kg | Protection Grade | IP54 | Output LL | Max.0.4v | Max.0.4v | Max.0.8v | Max.0.4v |
| | | | | Raising Time Tr | Max 1μs | Max 1μs | Max 1μs | Max 200ns |
| | | | | Fall Time Tf | Max 1μs | Max 1μs | Max 1μs | Max 200ns |
| | | | | Max. Response Frequency | 500kHz | 500kHz | 500kHz | 500kHz |

Connection

| Signal | A | B | Z | A- | B- | Z- | U | V | W | U- | V- | W- | Vcc | GND |
|--------|-------|-------|--------|---------|---------|---------|-------|------|--------|---------|---------|---------|-----|-------|
| Color | Green | White | Yellow | GRN/WHT | WHT/BLK | YEL/BLK | Brown | Gray | Orange | BRW/BLK | GRY/BLK | ORG/BLK | Red | Black |

Dimension:





Draw Wire Sensors

ADK-DWS Serials Draw Wire Sensors

▷ Features and Applications

Easy to install, suitable for all kinds of guide rail system, hydraulic cylinder system, telescopic system, pressure machinery, paper machinery, textile machinery, metal plate machinery, packaging machinery, printing machinery, level control instrument, construction machinery and other related dimension measurement and position control, industrial machinery, automatic control, etc.

| Draw Wire Sensors |  |  |  |  |  |
|-----------------------|---|---|---|---|---|
| Model | ADK15 | ADK20 | ADK50 | ADK60 | ADK80 |
| Size | Size: 30 x 30mm Rim: 40/50mm | Size: 50 x 35mm Thickness: 76mm | Size: 63 x 63mm Thickness: 78mm | Size: 80 x 80mm Thickness: 86mm | Size: 95 x 95mm Thickness: 75mm |
| Measurement Range | 0-500mm | 0-1200mm | 0-1500mm | 0-2000mm | 0-2500mm |
| Output Format | 0-10K,0-5V,0-10V,4-20mA | | | | |
| Supply Voltage | 2.5Vd Resistance , 24V | | | | |
| Accuracy | 2% | | | | |
| Linear Difference | ±0.1% | | | | |
| Power | 2W | | | | |
| Insulation Resistance | ≥1000Ω | | | | |
| Wire Rope | 0.6mm Wire Rope | | | | |
| Pull | 2.5N | 3.0N | 3.0N | 4.0N | 4.0N |
| Draw Speed | 80mm/s(max) | 100mm/s(max) | 100mm/s(max) | 150mm/s(max) | 200mm/s(max) |
| Working Life | ≥60000h | | | | |
| Material | Metal | | | | |
| Surface | Anodic Oxidation | | | | |
| Cable Length | 1m | 2m | 2m | 2m | 2m |
| Protection Grade | IP54 | IP54/IP67 | IP54/IP67 | IP54/IP67 | IP54/IP67 |
| Operation Temp. | -25-80°C | | | | |

CATALOG

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ABSOLUTE ENCODER

DUAL OUTPUT ENCODER

SERVO MOTOR ENCODER

DRAW WIRE SENSOR

MANUAL PLUSES GENERATOR

Draw Wire Sensor

| Model | ADK90 | ADK100 | ADK120 | ADK315 (Replace p+f ECN) | ADK333 Replace P+F GCI/GCA |
|------------------------------|---------------------------------------|--------------------------------------|---------------------------------------|---|---------------------------------------|
| Size | Size: 115 x 115mm Thickness: 100mm | Size: 130 x 130mm Thickness: 95mm | Size: 147 x 147mm Thickness: 130mm | Size: 120 x 120 x 246mm Rim: 315mm | Size: 120 x 120 x 246mm Rim: 315mm |
| Measurement Range | 0-3000mm | 0-3500mm | 0-4000mm | 0-5000/7000/10000mm | 0-10000/20000mm |
| Output Format | 0-10K,0-5V,0-10V,4-20mA | | | 1.Incremental: NPN/PNP Open Collector,Voltage output, Push Pull, Line Driver 2. Absolute: Parallet/SSI/RS485/RE485&4-20mA, CANopen、PROFIBUS-DP,Profinet etc. Supply Voltage: 5v,8-36v | |
| Supply Voltage | 2.5Vd Resistance, 24V | | | | |
| Accuracy | 2‰ | | | Resolution: Incremental: 100-30000ppr, Absolute: 65536turns/Single Turn 13bits | |
| Linear Difference | ±0.1% | | | Code: Binary/Gray | |
| Power | 2W | | | / | |
| Insulation Resistance | ≥1000Ω | | | / | |
| Wire Rope | 0.6mm Wire Rope | | | 1.2mm Wire Rope | |
| Pull | 4.0N | 5.0N | 5.0N | 12.0N | 10.0N |
| Draw Speed | 80mm/s(max) | 100mm/s(max) | 100mm/s(max) | 100mm/s(max) | 100mm/s(max) |
| Working Life | ≥60000h | | | | |
| Material | Metal | | | | |
| Surface | Anodic Oxidation | | | | |
| Cable Length | 1m | 2m | 2m | 2m | 2m |
| Protection Grade | IP54 | IP 54 | IP 54 | IP 54 | IP 54 |
| Operation Temp. | -25-80°C | | | | |

Attention:

In operation, the displacement sensor is installed in a fixed position, and the pull rope is tied to the moving object. The linear motion of the rope is aligned with the axis of the moving object. When movement occurs, the pull rope extends and contracts. An internal spring ensures that the tension of the pull rope remains unchanged. The threaded hub drives the precision rotary sensor to rotate, and outputs an electrical signal proportional to the moving distance of the pulling rope. The displacement, direction or velocity of the moving object can be obtained by measuring the output signal. Please make sure the wiring is carried out when the power is off. Pay attention that the wrong wiring may damage the sensor; Please do not run the line together with the high-voltage line or power line or in the same conduit. The signal should be transmitted by special shielded cable to avoid interference;

If electromagnetic interference equipment (switch regulator, high frequency device, conversion engine, etc.) is used near the product, please make sure that the grounding terminal of the equipment frame is well grounded, and at the same time, do a good job in shielding the signal transmission of the sensor.

The pull wire sensor is a kind of precision instrument. Do not knock it to ensure that the equipment and wire rope are clean and the service life is prolonged. When installing, the pull wire should be pulled out vertically, and the wire rope should not be damaged by external force.

If it is used in harsh environment or special occasions, please install your own protection mechanism, or contact our company to customize products. If using the mechanism of non pull line movement, please design the steering mechanism or purchase the attachment mechanism of our company's cable displacement sensor;

Pay attention to the perpendicularity of the stay wire and the outlet, that is to make the wire rope draw out perpendicular to the outlet as far as possible, and keep the minimum angle ($\leq 3^\circ$) to ensure the measurement accuracy and the service life of the cable.

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MANUAL PLUSES GENERATOR



Wei Hai Idencoder Electronic Technology Co., Ltd



Industry Rotary Encoder

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