

Absolute Encoder
New product recommendations



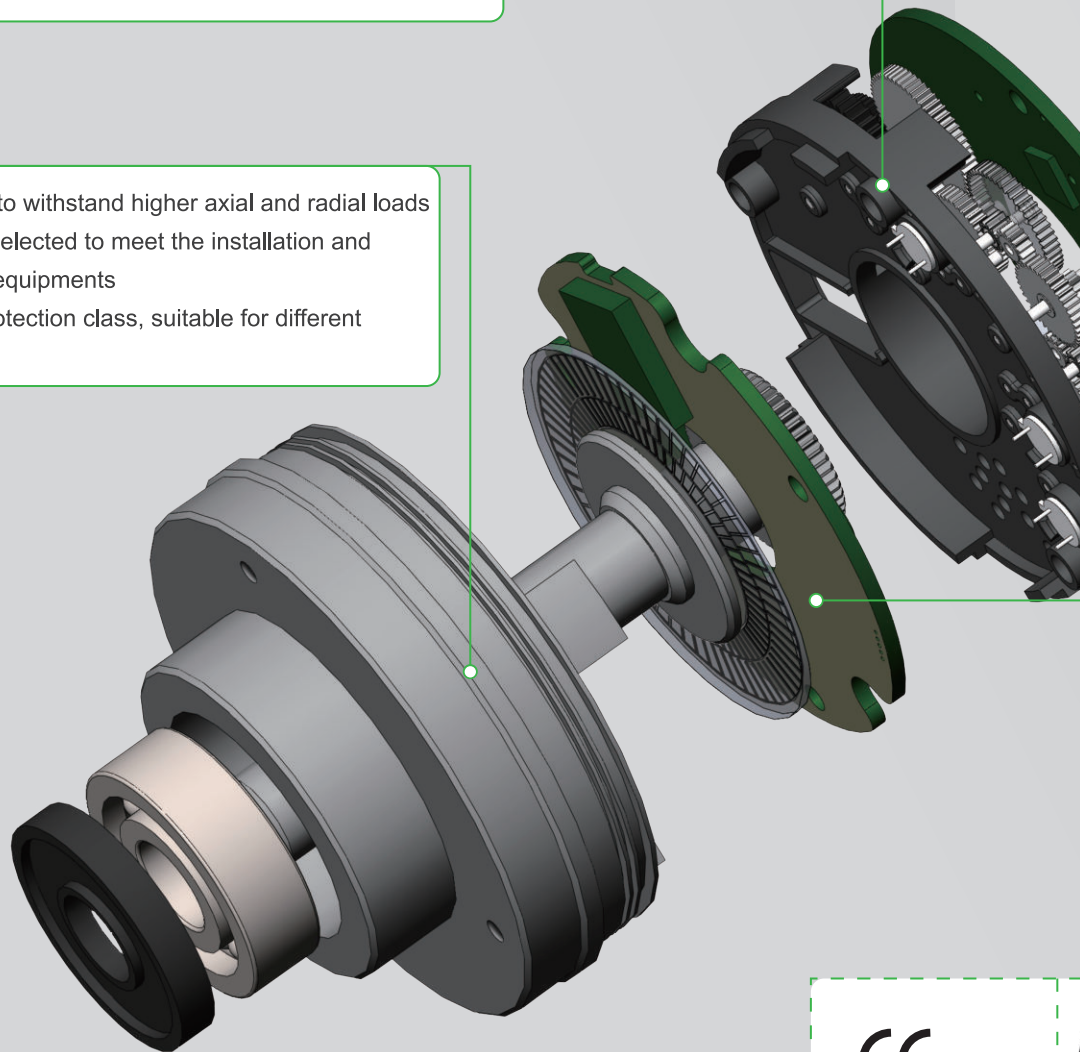
Elco (Tianjin) Electronics Co., Ltd. is a leading enterprise in China's industrial automation. It was established in Tianjin in 2003, and its sales and service network covers the whole country. As a provider of local industrial automation products and a supplier of intelligent manufacturing solutions in China, Elco has occupied a leading position in automobiles, auto parts, construction machinery, robots, food and pharmaceutical, printing and packaging, textile machinery, logistics equipment, electronics manufacturing and many other fields.

Multiturn Design

- >> Mechanical gear revolution detection to provide reliable and stable data output
- >> Modular gear set design, tough gear material, gear module optimization
- >> Photoelectric principle technology, accurate and fast data processing, providing high-speed system response

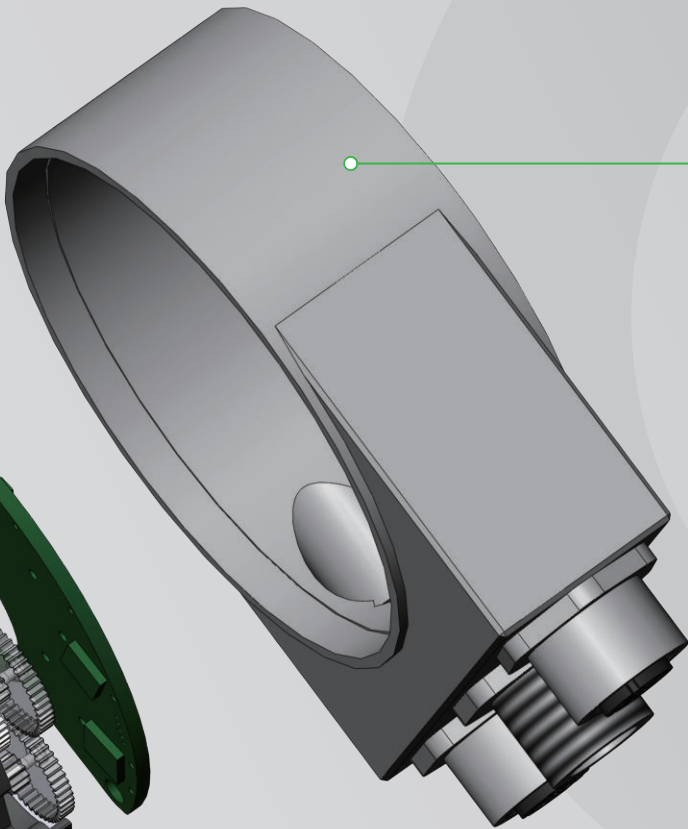
Mechanical Design

- >> Double bearing structure design to withstand higher axial and radial loads
- >> A variety of flange types can be selected to meet the installation and design requirements of different equipments
- >> Sealed structure design, IP65 protection class, suitable for different working conditions



CE EN 61326

-20° +85°



Signal Interface

- >> Ethernet bus: Profinet/IO EtherNet/IP EtherCAT
- >> Fieldbus: Profibus-DP DeviceNET CANopen
- >> Other interfaces: SSI analog (4-20mA), customized

Singleturn Design

- >> Accurate photoelectric collection technology and advanced integrated processing chip for high-precision angle detection
- >> 0.3 μ m high-precision code disc to ensure the accuracy and repeatability of the angle signal
- >> High-energy LED combined with advanced photoelectric sensing technology to ensure long-term stability and reliability of signals



Ethernet protocol absolute photoelectric multiturn encoder

Mechanical multiturn design, shaft and hollow shaft are optional



Intelligent diagnosis and high-speed data transmission, with power supply low-voltage indicator alarm

The maximum resolution of the singleturn is 19bit and of the multiturn it is 12bit, which meets the high precision control requirements of the system

Supports multiple Ethernet protocol interfaces, such as: Profinet, Ethernet/IP, Ethercat, etc.

Mechanical parameters:

Shaft diameter Φ mm	$\Phi 6/\Phi 10g6$ (shaft type)	$\Phi 8/\Phi 10/\Phi 12/\Phi 15H7$ (hollow shaft type)
Dimensions mm	$\Phi 58$	
Maximum mechanical speed (rpm)	6000	
Shaft load (radial/axial) [N]	160/80	
Operating temperature ($^{\circ}\text{C}$)	-40...+80	
Protection class	IP65	
Connection options	M12 connector	
Maximum resolution	Singleturn 19bit	Multiturn 12bit

Electrical parameters:

Supply voltage	10...30 VDC		
Maximum output frequency	100 Mbits/s		
Output mode	PROFINET IO/RT	EtherNet/IP	EtherNet/CAT
Features	Standard industrial Ethernet protocol, metal housing, high resolution, high protection class, M12 connector for fast connection		

Fieldbus protocol absolute photoelectric multiturn encoder

Mechanical multiturn design, shaft and hollow shaft are optional

The maximum resolution of the singleturn is 19bit and of the multiturn it is 12bit, which meets the high precision control requirements of the system



PG7 threaded connector and M12 connector are optional

Supports multiple fieldbus protocol interfaces, such as: Profibus-DP, CANopen, Devicenet, etc.

Mechanical parameters:

Shaft diameter Φ mm	$\Phi 6/\Phi 8/\Phi 10$ g6(shaft type) $\Phi 8/\Phi 10/\Phi 12/\Phi 15$ H7(hollow shaft type)
Dimensions mm	$\Phi 58$
Maximum mechanical speed (rpm)	6000
Shaft load (radial/axial) [N]	160/80
Operating temperature ($^{\circ}$ C)	-40...+80
Protection class	IP65
Connection options	PG7 threaded connector / connector
Maximum resolution	Singleturn 19bit Mutliturn 12bit

Electrical parameters:

Supply voltage	10...30 VDC
Maximum output frequency	10MHz
Output mode	Profibus-DP CANopen DeviceNet
Features	Multiple standard installation flange are optional, metal housing, high resolution, high protection class

SSI protocol absolute photoelectric multiturn encoder

Compact structure, easy to install and debug on site

Mechanical multiturn design, the maximum shaft diameter of the hollow shaft is $\Phi 15\text{mm}$

Connector outlet is optional for on-site maintenance

The maximum resolution of the singleturn is 19bit and of the multiturn it is 12bit, which meets the high precision control requirements of the system



Mechanical parameters:

Shaft diameter Φmm	$\Phi 8/\Phi 10/\Phi 12/\Phi 15\text{H}7$
Dimensions mm	$\Phi 58$
Maximum mechanical speed (rpm)	6000
Shaft load (radial/axial) [N]	160/80
Operating temperature ($^{\circ}\text{C}$)	-40...+80
Protection class	IP65
Connection options	Connector/pre-wired cable
Maximum resolution	Singleturn 19bit Multiturn 12bit

Electrical parameters:

Supply voltage	5/10...30 VDC
Maximum output frequency	1MHz
Output mode	SSI
Features	Through-hole hollow shaft design, maximum hole diameter is $\Phi 15\text{mm}$, metal housing, high resolution, high protection class

Profinet protocol absolute magnetoelectric multiturn encoder



3×M12 connector connection to achieve fast and error-free connection

Magnetoelectric multiturn design, maximum 16bit of singleturn, maximum 40bit of multiturn

4 LED status indicators, monitoring status at a glance

With intelligent diagnosis function and high-speed data transmission function, update time ≤ 1ms

Mechanical parameters:

Shaft diameter Φmm	Φ6/Φ10g6(shaft type)	Φ8/Φ10/Φ12H7(hollow shaft type)
Dimensions mm	Φ58	
Maximum mechanical speed (rpm)	6000	
Shaft load (radial/axial) [N]	80/40	
Operating temperature (°C)	-40...+80	
Protection class	IP65	
Connection options	M12 connector	
Maximum resolution	Singleturn 16bit	Multiturn 40bit

Electrical parameters:

Supply voltage	10...30 VDC
Maximum output frequency	100 Mbits/s
Output mode	PROFINET IO/RT
Features	Magnetoelectric multiturn technology, metal housing, high resolution, high protection class, M12 connector for fast connection

BiSS-C protocol absolute singleturn encoder

Special chip processing technology, maximum resolution is up to 23bit

Compact structure and easy to install, the maximum mechanical speed can reach 12000min⁻¹

Two-way synchronous communication, the maximum communication rate can reach 10MHz

Flexibility of industrial application, alarm position and protocol length can be adjusted freely



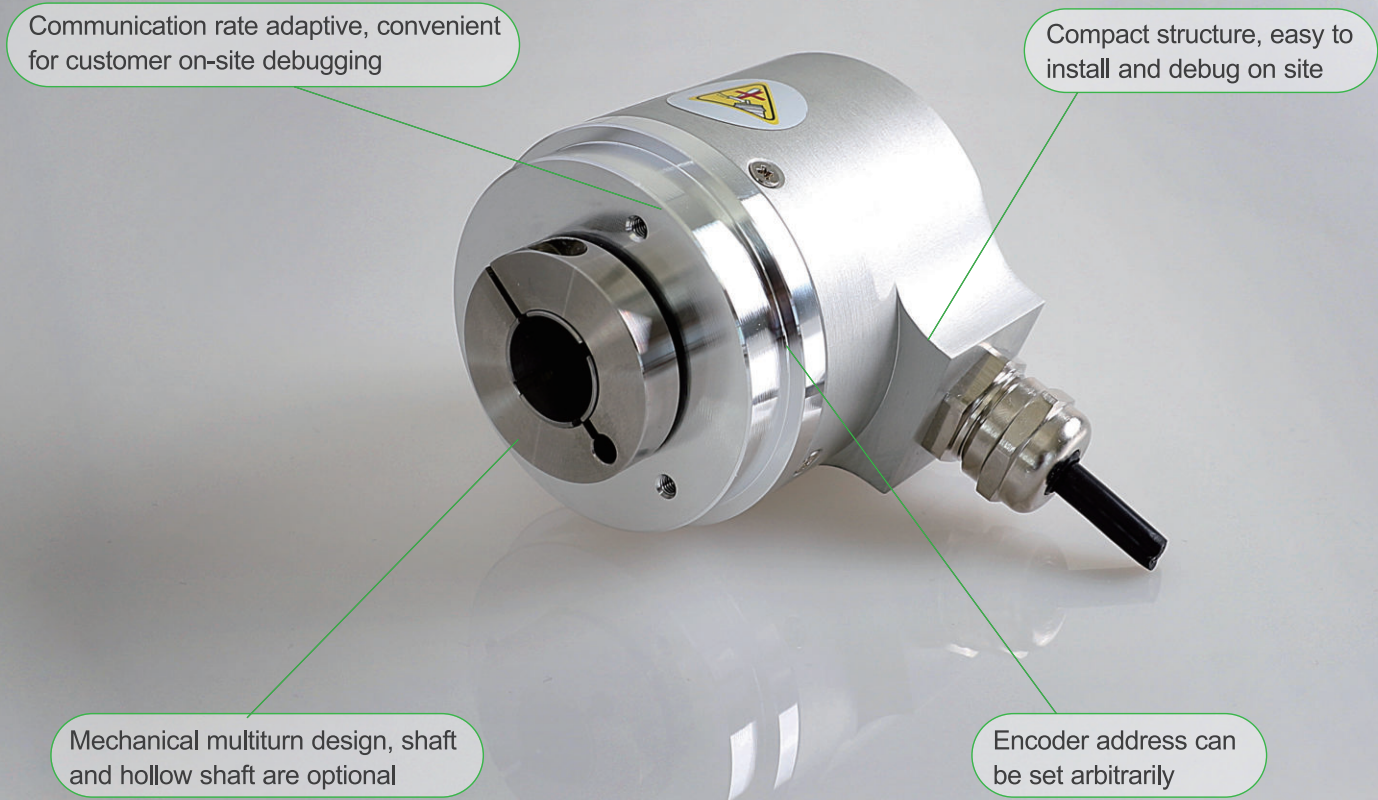
Mechanical parameters:

Shaft diameter Φ mm	Φ 13.4	--1:10 cone
Dimensions mm	Φ 50	
Maximum mechanical speed (rpm)	12000	
Shaft load (radial/axial) [N]	80/40	
Operating temperature (°C)	-40...+80	
Protection class	IP65	
Connection options	Pre-wired cable	
Maximum resolution	Singleturn 23bit	

Electrical parameters:

Supply voltage	5/10...30 VDC
Maximum output frequency	10MHz
Output mode	BiSS-C
Features	Open high-speed serial protocol, high resolution, high protection class, excellent mechanical structure performance

CANOPEN absolute encoder



Mechanical parameters:

Shaft diameter Φ mm	$\Phi 6/\Phi 8/\Phi 10$ g6(shaft type)	$\Phi 8/\Phi 10/\Phi 12/\Phi 15$ H7(hollow shaft type)
Dimensions mm	$\Phi 58$	
Maximum mechanical speed (rpm)	3000	
Shaft load (radial/axial) [N]	160/80	
Operating temperature ($^{\circ}$ C)	-40...+80	
Protection class	IP65	
Connection options	Pre-wired cable/connector	
Maximum resolution	Singleturn 19bit	Multiturn 12bit

Electrical parameters:

Supply voltage	10...30 VDC
Maximum output frequency	10MHz
Output mode	CANopen
Features	Multiple standard installation flange are optional, metal housing, high resolution, high protection class

NOTES

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