

Absolute Encoder New product recommendations



ELCO Industrie Automation GmbH
Benzstrasse 7
71720 Oberstenfeld
Deutschland
E-Mail: info@elco-automation.de



www.elco-automation.de

ELCO (TIANJIN) ELECTRONICS CO., LTD.
No. 12, 4th XEDA Branch Road
Xiqing Economic Development Area
Tianjin 300385, P. R. China
E-Mail: info@elco.cn



www.elco-holding.com.cn

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

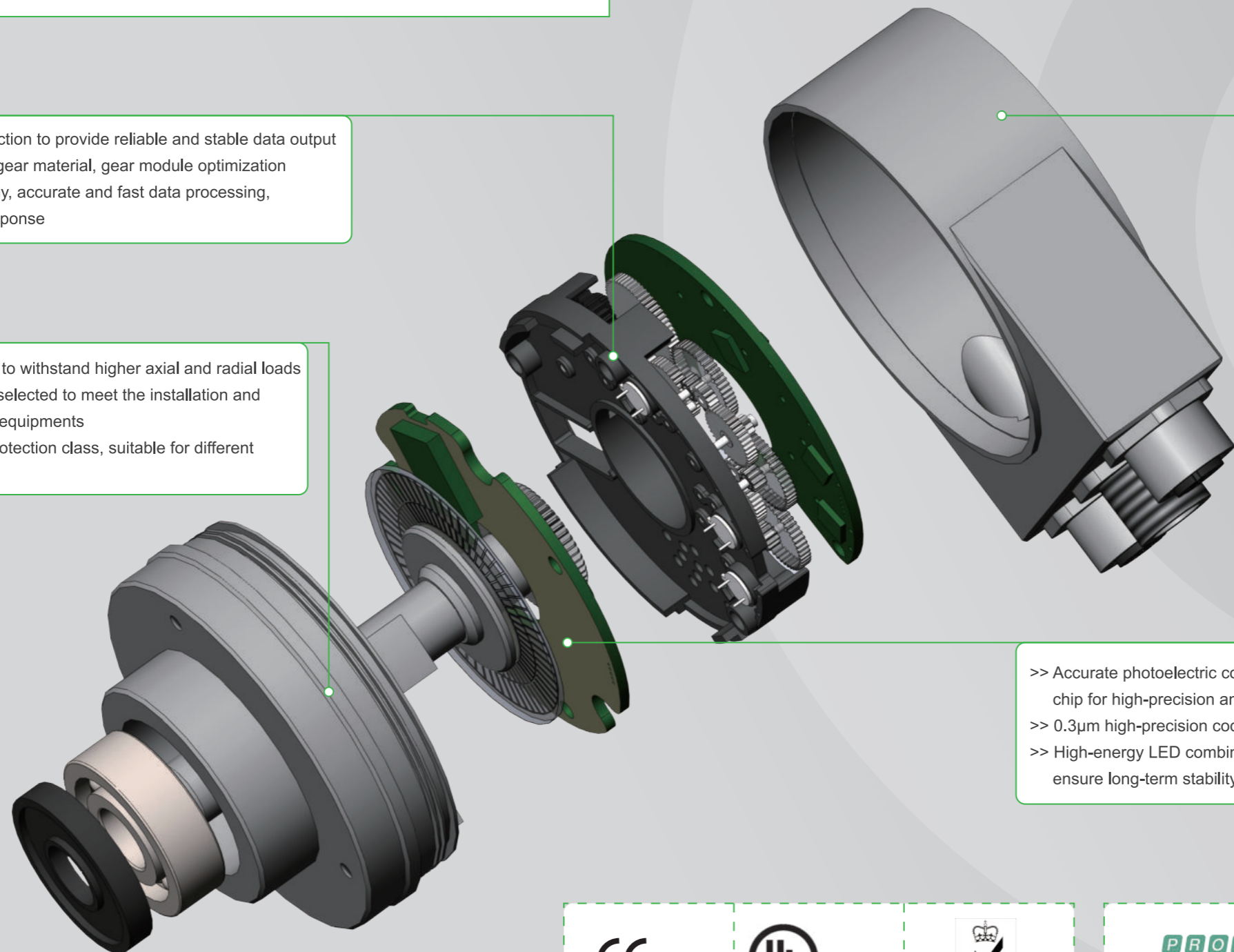
- >> Mechanical gear revolution detection to provide reliable and stable data output
- >> Modular gear set design, tough gear material, gear module optimization
- >> Photoelectric principle technology, accurate and fast data processing, providing high-speed system response

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

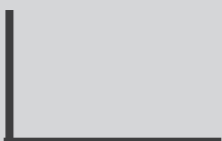
Signal Interface

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

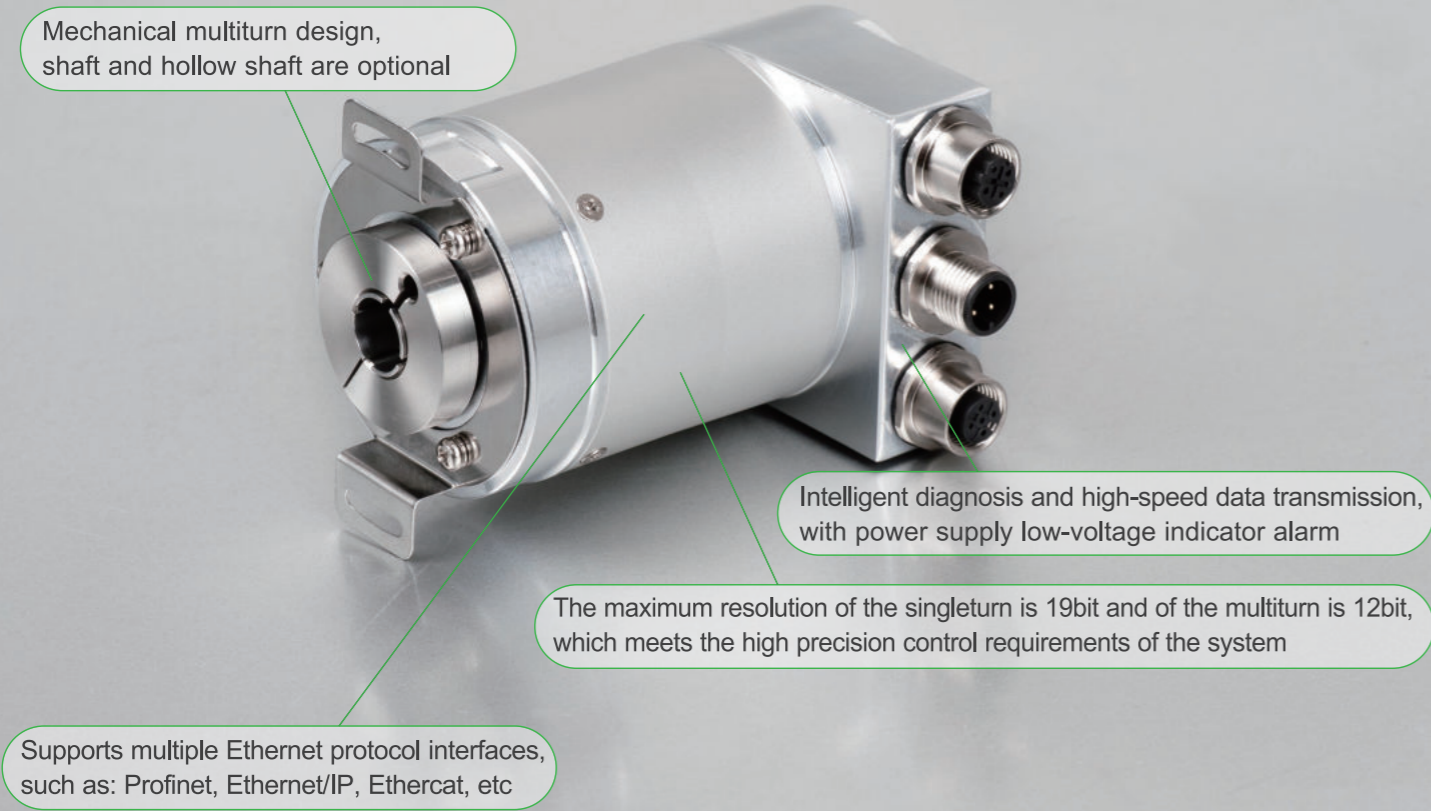


Singleturn Design

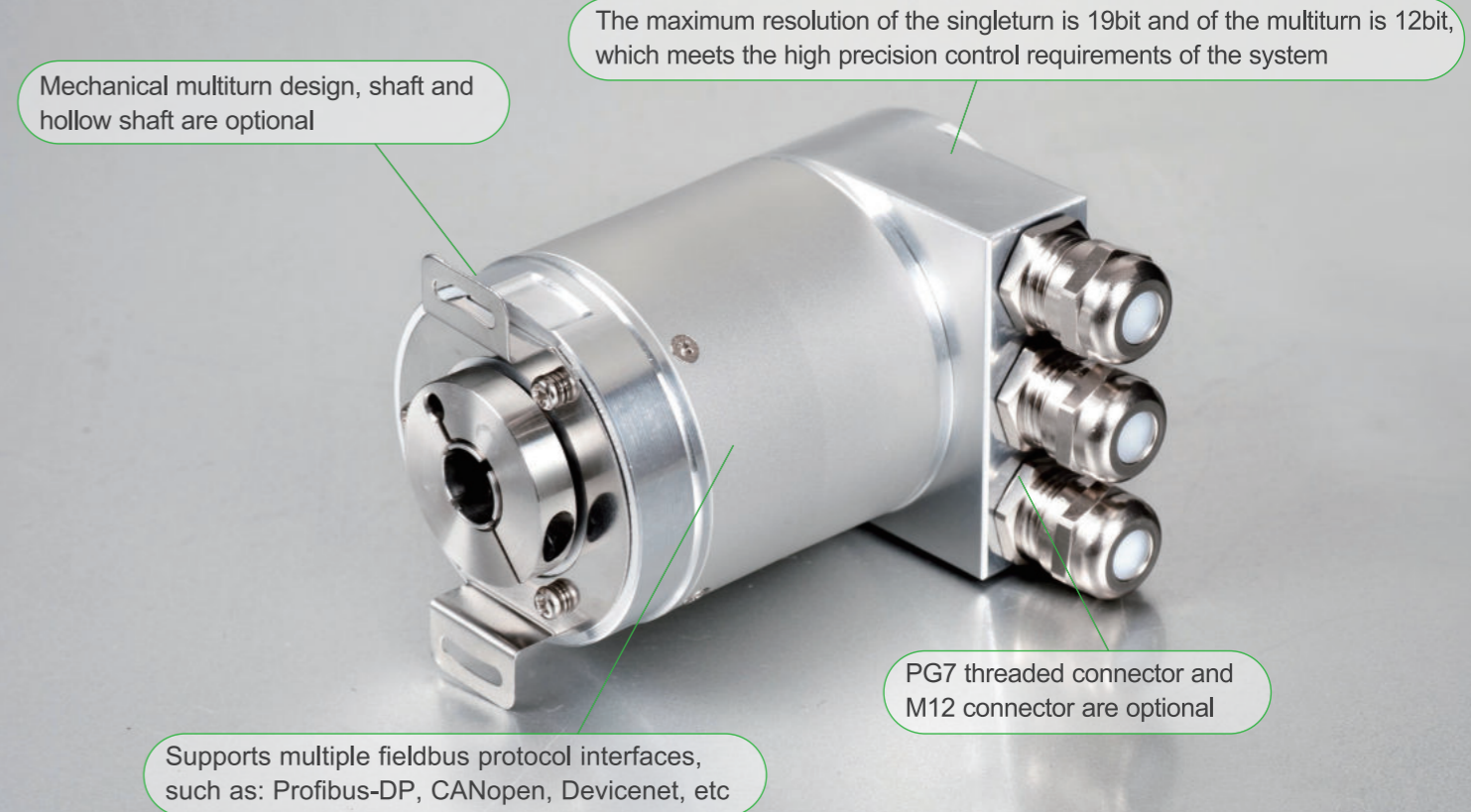
- >> Accurate photoelectric collection technology and advanced integrated processing chip for high-precision angle detection
- >> 0.3μm high-precision code disc to ensure the accuracy and repeatability of the angle signal
- >> High-energy LED combined with advanced photoelectric sensing technology to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



Ethernet protocol absolute photoelectric multiturn encoder



Fieldbus protocol absolute photoelectric multiturn encoder



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

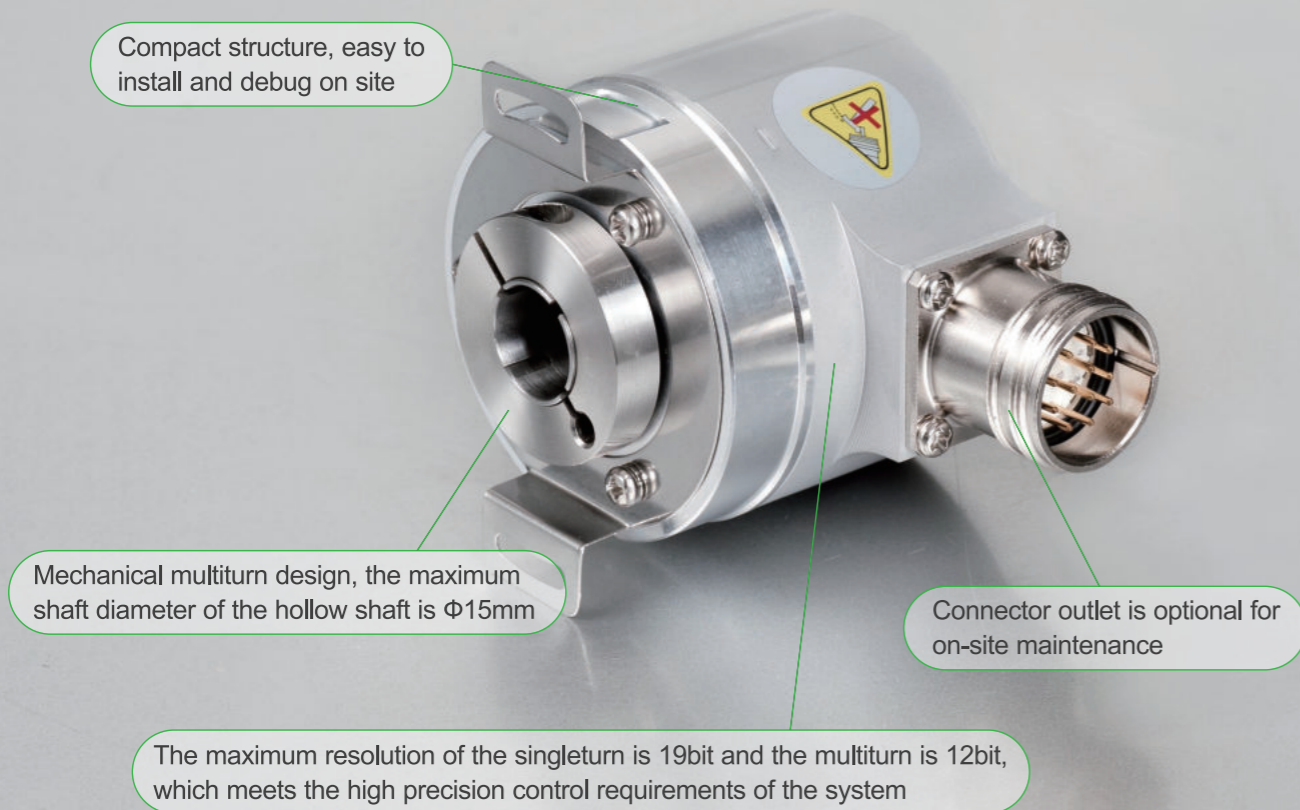
Mechanical parameters:

Shaft diameter Φ mm	$\Phi 6/\Phi 8/\Phi 10g6$ (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	PG7 threaded connector / connector
Maximum resolution	Singleturn 19bit Multiturn 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



Profinet protocol absolute magnetoelectric multiturn encoder



Mechanical parameters:

Shaft diameter Φmm	$\Phi 8/\Phi 10/\Phi 12/\Phi 15\text{H7}$
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

Mechanical parameters:

Shaft diameter Φmm	$\Phi 6/\Phi 10\text{g6}$ (shaft type) $\Phi 8/\Phi 10/\Phi 12\text{H7}$ (hollow shaft type)
Dimensions mm	$\Phi 58$
Maximum mechanical speed (rpm)	6000
Shaft load (radial/axial) [N]	80/40
Operating temperature ($^{\circ}\text{C}$)	-40...+80
Protection class	IP65
Connection options	M12 connector
Maximum resolution	Singleturn 16bit Multiturn 40bit

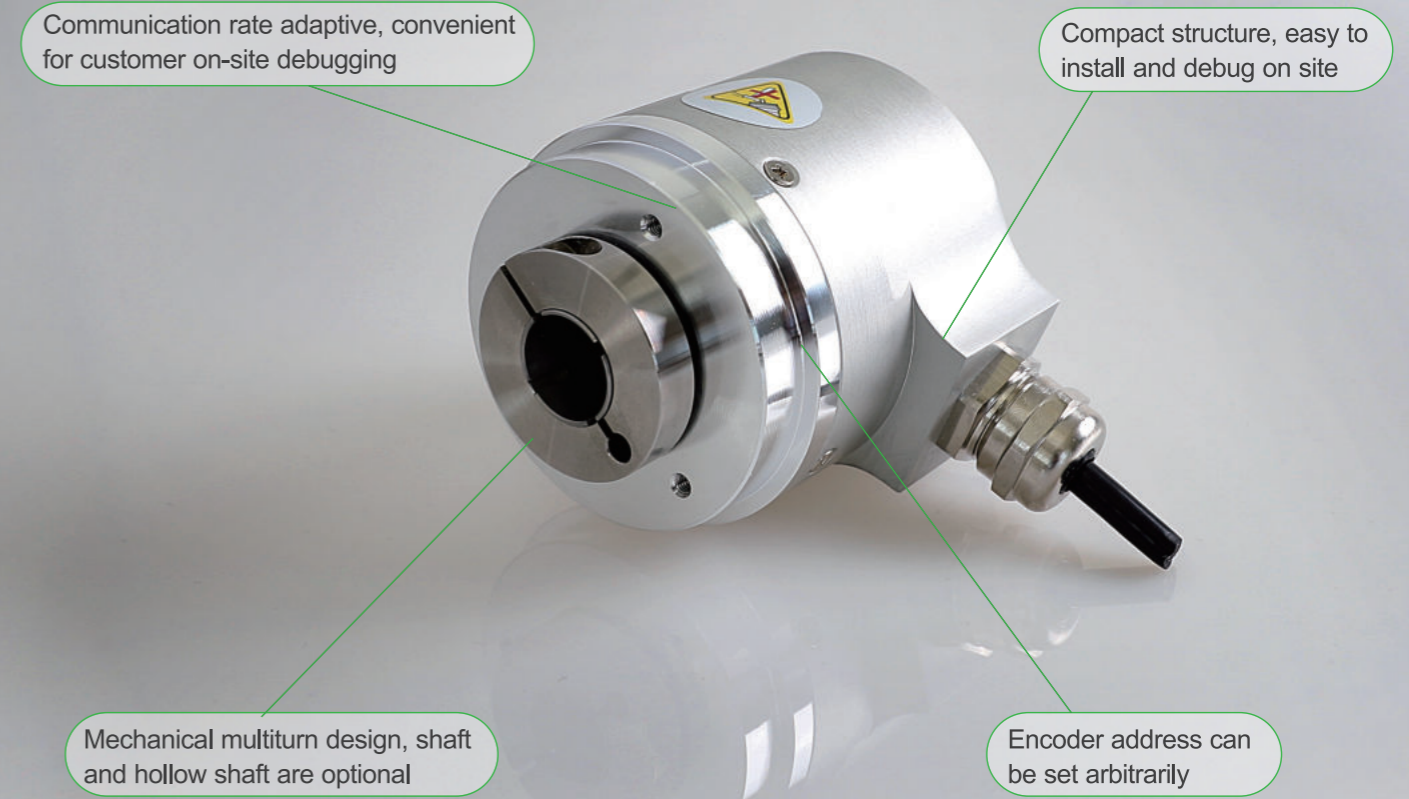
Electrical parameters:

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



CANOPEN absolute encoder



Mechanical parameters:

Shaft diameter Φmm	Φ 13.4 --1:10 cone
Dimensions mm	Φ50
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

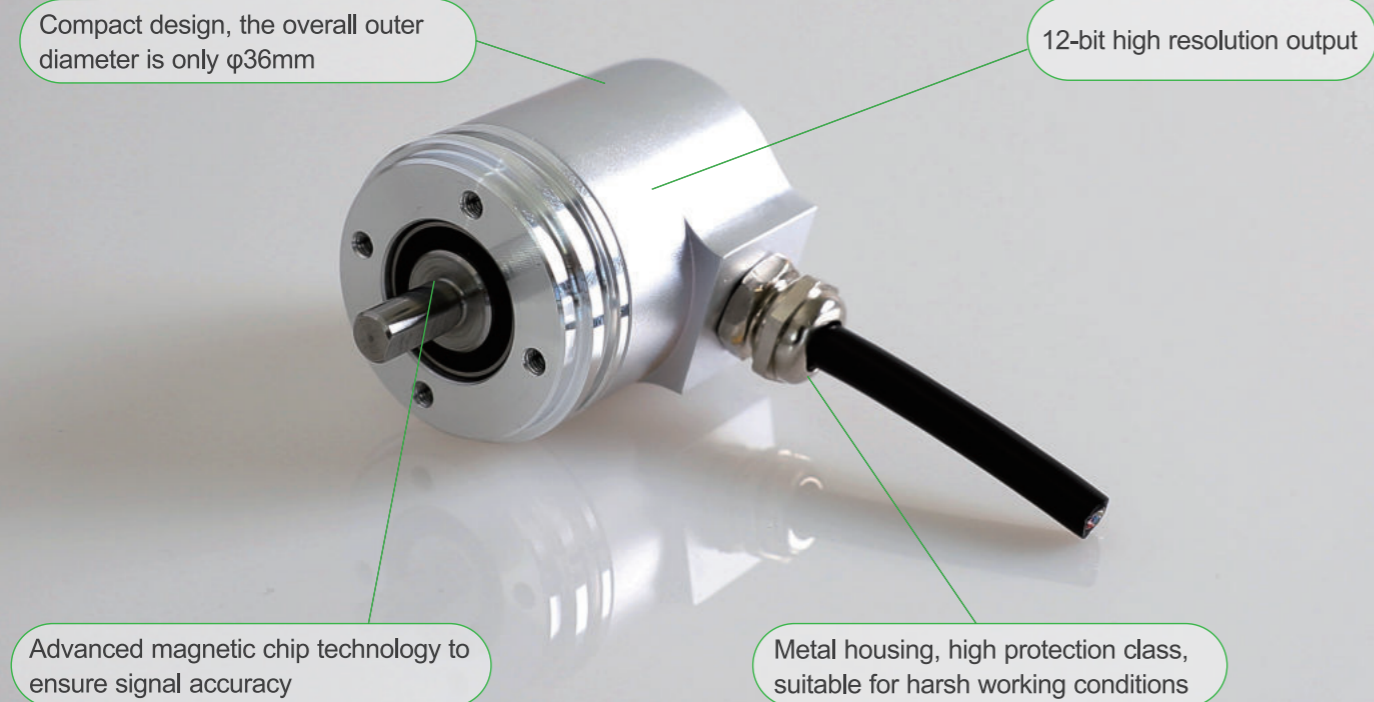
Mechanical parameters:

Shaft diameter Φmm	Φ6/Φ8/Φ10g6 (shaft type)	Φ8/Φ10/Φ12/Φ15H7 (hollow shaft type)
Dimensions mm	Φ58	
Maximum mechanical speed (rpm)	3000	
Shaft load (radial/axial) [N]	160/80	
Operating temperature (°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

Singleturn magnetoelectric encoder



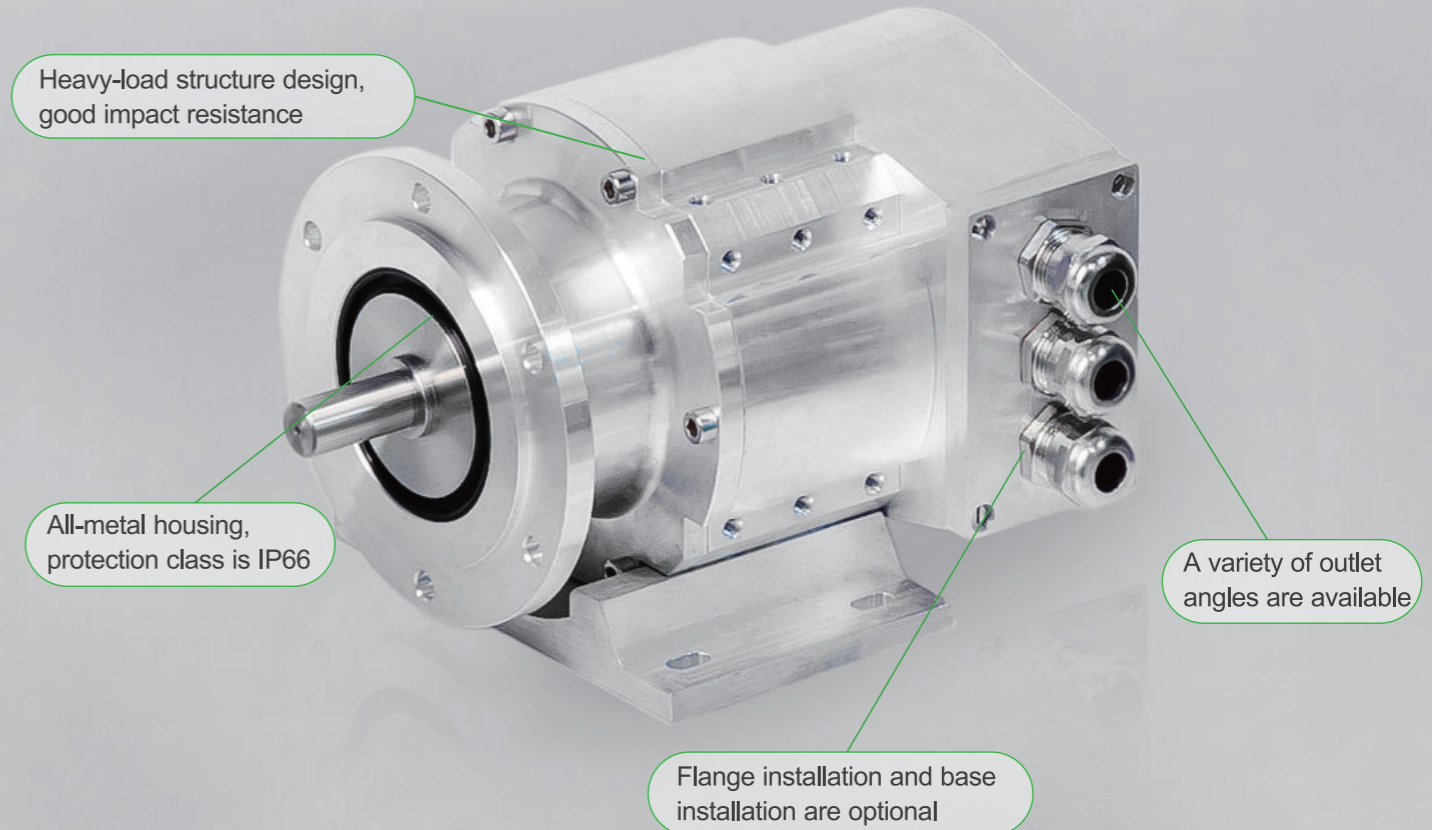
Mechanical parameters:

Shaft diameter Φmm	$\Phi 6\text{g6}$ (shaft type)
Dimensions mm	$\Phi 36$
Maximum mechanical speed (rpm)	6000
Shaft load (radial/axial) [N]	40/20
Operating temperature ($^{\circ}\text{C}$)	60
Protection class	IP65
Connection options	Pre-wired cable/connector
Maximum resolution	Singleturn 12bit

Electrical parameters:

Supply voltage	10...30 VDC
Measuring range	0... 360 $^{\circ}$
Output mode	4...20mA
Features	Compact design, magnetoelectric technology, metal housing, high resolution

Heavy-load Profibus-DP absolute multiturn encoder PVM115



Mechanical parameters:

Shaft diameter Φmm	$\Phi 14\text{g6}$ (shaft type)
Dimensions mm	$\Phi 115$
Maximum mechanical speed (rpm)	3600
Shaft load (radial/axial) [N]	200/100
Operating temperature ($^{\circ}\text{C}$)	-40...+80
Protection class	IP66
Connection options	PG7 threaded connector
Maximum resolution	Singleturn 13bit Multiturn 12bit

Electrical parameters:

Supply voltage	10...30 VDC
Maximum output frequency	12MHz
Output mode	Profibus-DP
Features	Heavy-load design with good impact resistance, high protection class, high resolution