

CAX60...EC absolute encoder**Ether CAT Industrial Ethernet (version 4.0)****EtherCAT** **Encoder introduction**

Encoder technology	magneto electric
Single-turn resolution	12-bit, 13-bit, 14-bit optional
Multi-turn number of turns	64 turns, 256 turns, 4096 turns, 16384 turns optional
Multi-turn technology	Mechanical gear set
Configuration file	CoE (CANopen based on EtherCAT,DS-301+DS406)
Diagnosis	Memory

Interface introduction

Output signal	Ether CAT
Transmission rate	10/100Mbit
Interface cycle time	≥80 μs
Linear resolution	1/4096FS~1/16384FS optional
Programmable function	Single turn resolution, signal counting direction, preset
output driver	Ethernet

Electrical parameters

Operating Voltage	10-30Vdc (5Vdc can be customized)
Power dissipation	Less than 2W
Output signal	Ether CAT Industrial Ethernet
Start Time	< 1s
Reverse polarity protection	Yes
Short circuit protection	Yes
Repeatability	Less than 2Bit
IP class	IP65/IP67
Operating temperature	-40℃~85℃
Storage temperature	-40℃~85℃
Temperature	98% relative humidity, non-condensing state

Mechanical parameters

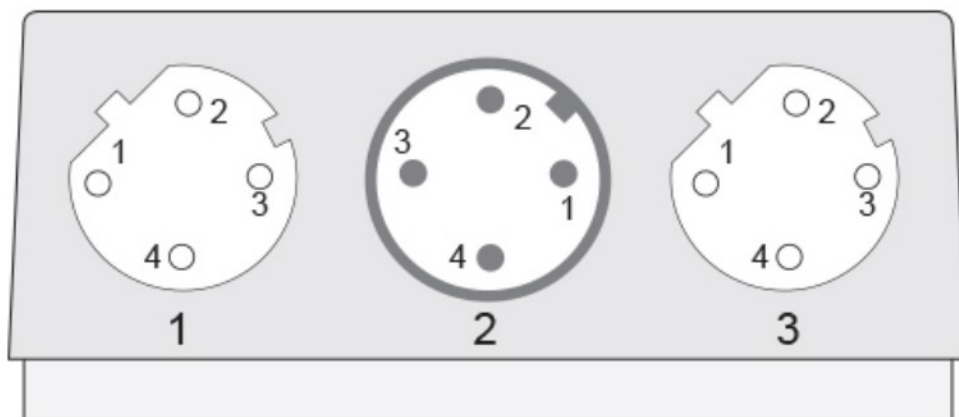
Maximum speed	6000 rpm
Spindle load	Axial 40N, Radial 100N
Spindle material	Stainless steel
Shell material	Aluminum
Impact resistance	1000m/s ² (6ms), equal to 100g
Anti-vibration	200m/s ² (10-2000Hz), equal to 20g
Allow axial play	±1.5mm
Allow radial runout	±0.2mm

External structure	60mm OD, solid shaft, blind hole shaft
Connection Type	Side outlet M12 connector (rear outlet M8 optional)

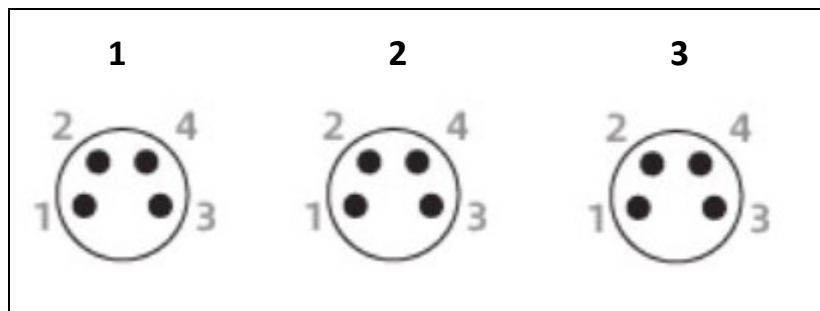
Connector Specifications

	Side Out Type	Back Out Type
Connection 1	M12, female, type D	M8, female standard
Connection 2	M12, male, type A	M8, male standard
Connection 3	M12, female, type D	M8, female standard

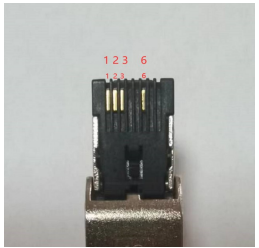
Schematic diagram of side outlet connector:

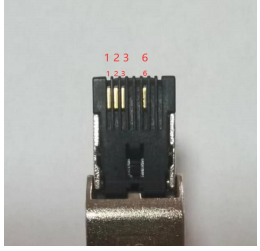


Schematic diagram of the rear connector:



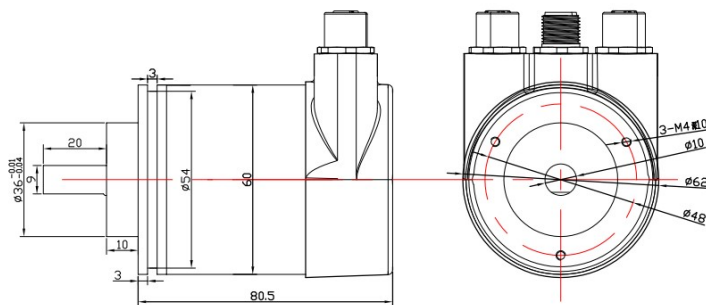
Wiring diagram:

Signal	Connector	M12 Pin	RJ45 Pin
TX+: Yellow	Connector 1	1/Yellow	1
TX-: Green		2/Green	2
RX+: Blue		3/Gray	3
RX-: Gray		4/Blue	6
10-30V: Brown	Connector 2	1/Brown	
Not		2	

GND: White		3/White		
Not		4		
TX+	Connector 3	1	1	
TX-		2	2	
RX+		3	3	
RX-		4	6	

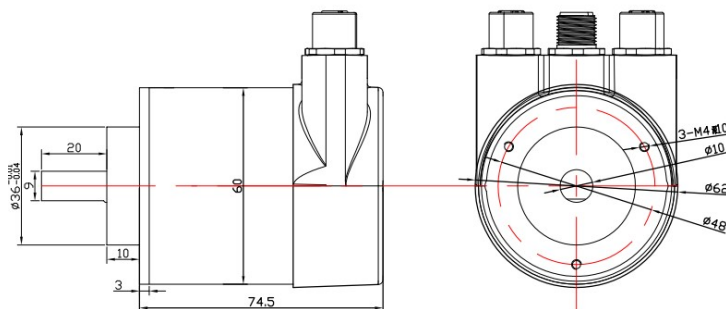
Mechanical dimension drawing:

Clamping synchro flange



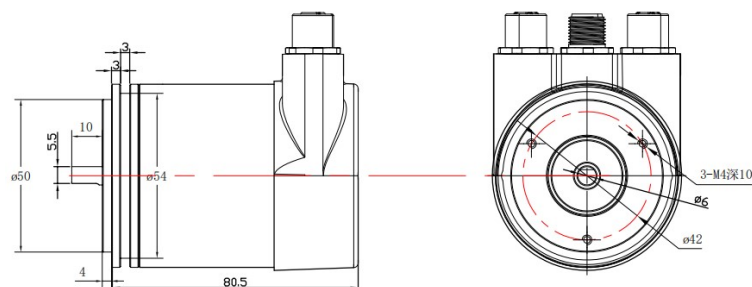
60mm outer diameter 6/8/10mm shaft diameter optional 20mm shaft length

Clamping flange



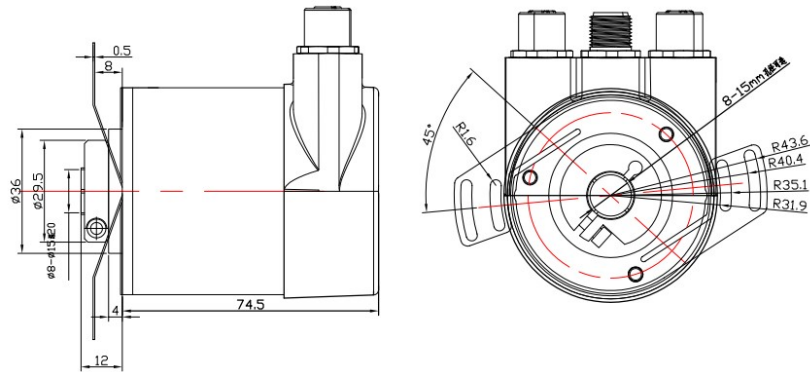
60mm outer diameter 6/8/10mm shaft diameter optional 20mm shaft length

Synchronous Flange/Servo Flange



60mm outer diameter 6mm shaft diameter 10mm shaft length

Blind/half through flange



60mm outer diameter 8-15mm hole diameter optional 20mm hole depth