

CAX60...PN absolute encoder

PROFINET Industrial Ethernet (version 4.0)



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
Symbology	binary
Diagnosis	Memory

Interface introduction

Output signal	PROFINET
Transmission rate	10/100Mbit
Interface cycle time	≥ 2ms
Linear resolution	1/4096FS~1/16384FS optional
Programmable function	Single-turn resolution, signal count direction, IP address filter, IP/TIP
output driver	Ethernet



Customize Your Own Sensor

Electrical parameters

Operating Voltage	10-30Vdc (5Vdc can be customized)
Current consumption	< 50mA (24Vdc) no load
Output signal	PROFINET Industrial Ethernet
Start Time	< 250ms
Reverse polarity protection	Yes
Short circuit protection	Yes
Repeatability	Less than 2Bit
IP class	IP65/IP67
Operating temperature	-40°C~85°C
Storage temperature	-40°C~85°C
Temperature	98% relative humidity, non-condensing state

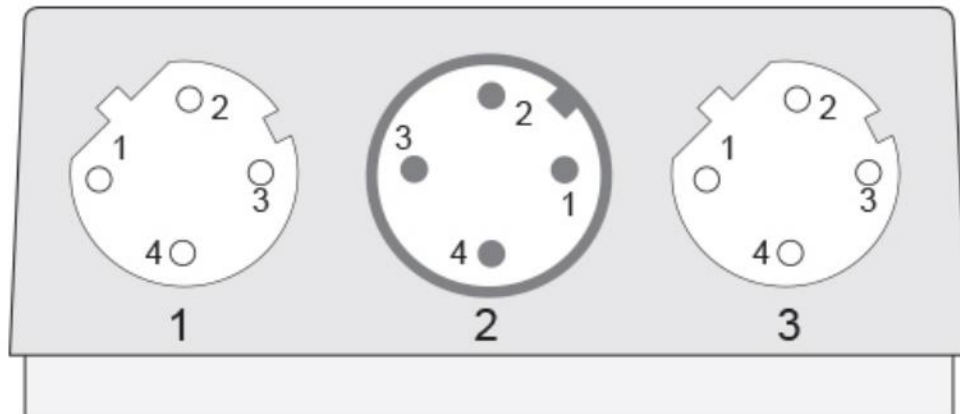
Mechanical parameters

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)

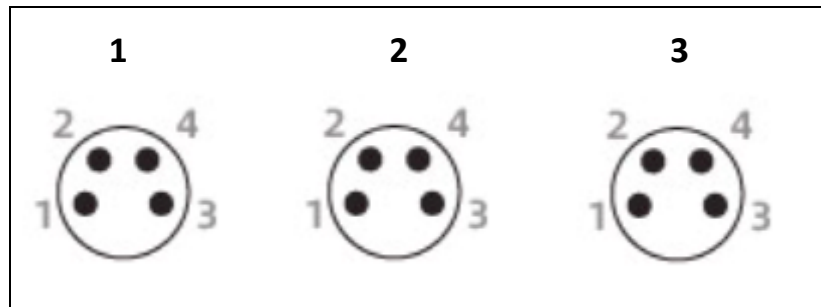
Connector Specifications

	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

TX+

TX-

RX+

RX-

10-30V

Not

GND

Not

TX+

TX-

RX+

RX-

joint

connector 1

connector 1

connector 1

connector 1

connector 2

connector 2

connector 2

connector 2

connector 3

connector 3

connector 3

connector 3

Needle Angle

PIN 1

PIN 2

PIN 3

PIN 4

PIN 1

PIN 2

PIN 3

PIN 4

PIN 1

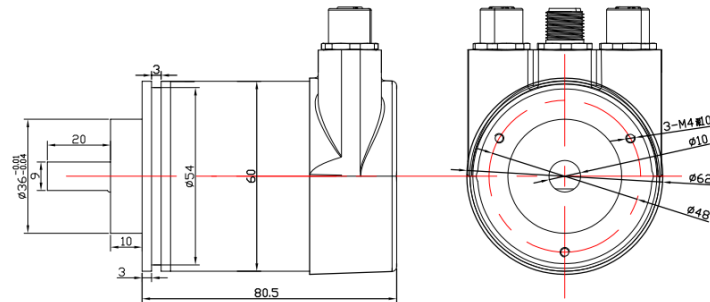
PIN 2

PIN 3

PIN 4

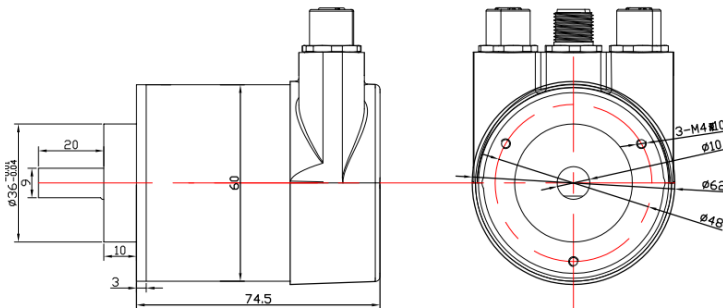
Mechanical dimension drawing:

Clamping synchro flange



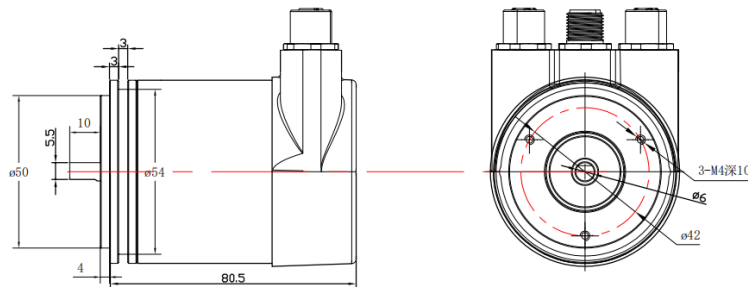
60mm outer diameter 6/8/10mm shaft diameter optional 20mm shaft length

Clamping flange



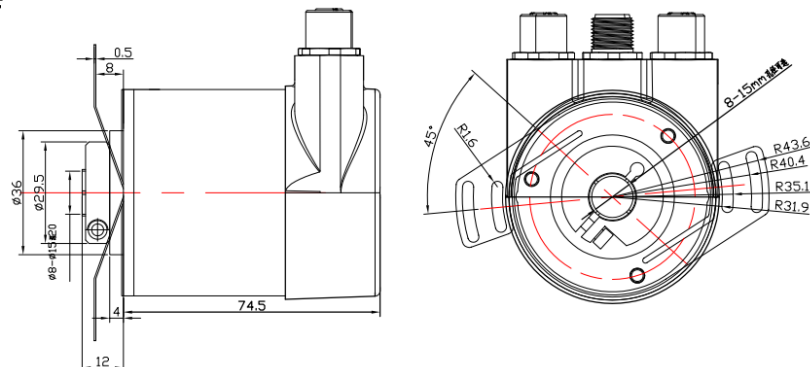
60mm outer diameter 6/8/10mm shaft diameter optional 20mm shaft length

Synchronous Flange/Servo Flange



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

Blind Hole Flange



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