

GDX...PN Absolute encoder

PROFINET Industrial Ethernet (version 4.1)



Encoder introduction

Encoder Technology

Optoelectronics

Single-turn resolution

up to 18 bits (262144)

Multi-turn number of turns

64 turns, 256 turns, 4096 turns optional

Multi-turn technology

Mechanical gear set

symbology

Binary

Diagnostic

Memory

Interface introduction

Output signal	PROFINET
Transfer rate	10/100Mbit
Interface cycle time	≥ 2ms
Linear resolution	1/262144FS optional
Programmable functions	Single-turn resolution, signal count direction, IP address filter, IP/TIP
Output driver	Etherent

Electrical parameters

Working voltage	10-30Vdc (5Vdc can be customized)
Current consumption	< 50mA (24Vdc) no load
Output signal	PROFINET Industrial Ethernet
Startup time	< 250ms
Reverse Polarity Protection	Yes
Short circuit protection	Yes
Repeat positioning accuracy	less than 2Bit
IP class	IP65/IP67
Working temperature	-40°C~85°C
Storage temperature	-40°C~85°C
Temperature	98% relative humidity, non-condensing state

Mechanical parameters

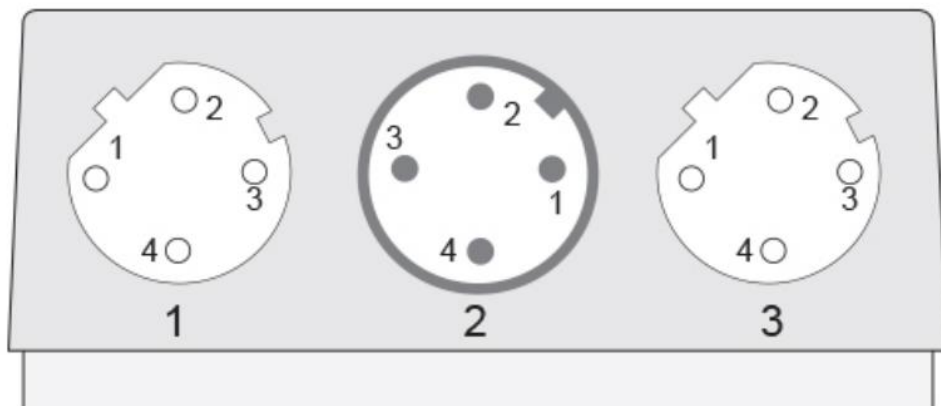
Maximum speed	6000 rpm
Spindle load axial	40N, radial 100N
Spindle material	stainless steel
Housing Material	Aluminum
Shock resistance	1000m/s ² (6ms), equal to 100g

Anti-vibration	200m/s ² (10-2000Hz), equal to 20g
Allowable axial movement	±1.5mm
Allowable radial runout	±0.2mm
Outer structure	60mm outer diameter, solid shaft, blind hole shaft
Connection form	M12 connector on the side (M8 optional on the rear)

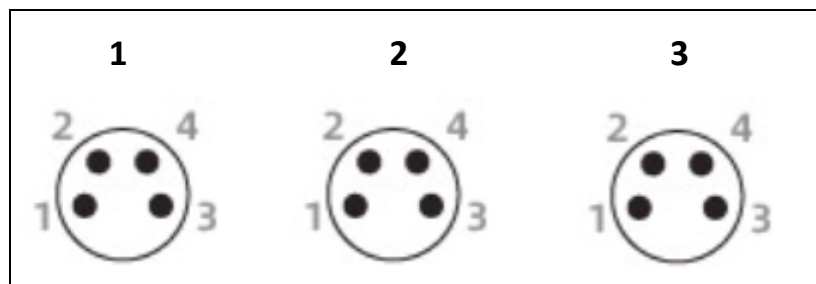
Connector Specifications

	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:

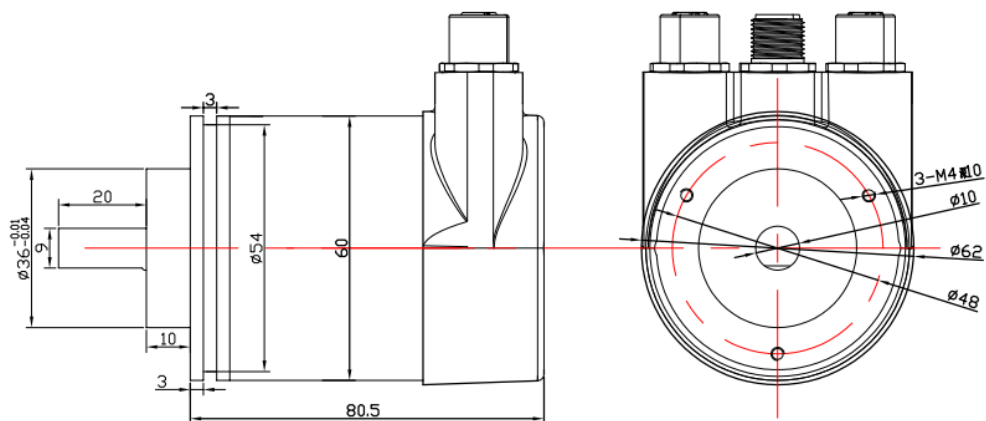


Wiring diagram:

Signal	joint	Needle Angle
TX+	connector 1	1
TX-	connector 1	2
RX+	connector 1	3
RX-	connector 1	4
10-30V	connector 2	1
Not	connector 2	2
GND	connector 2	3
Not	connector 2	4
TX+	connector 3	1
TX-	connector 3	2
RX+	connector 3	3
RX-	connector 3	4

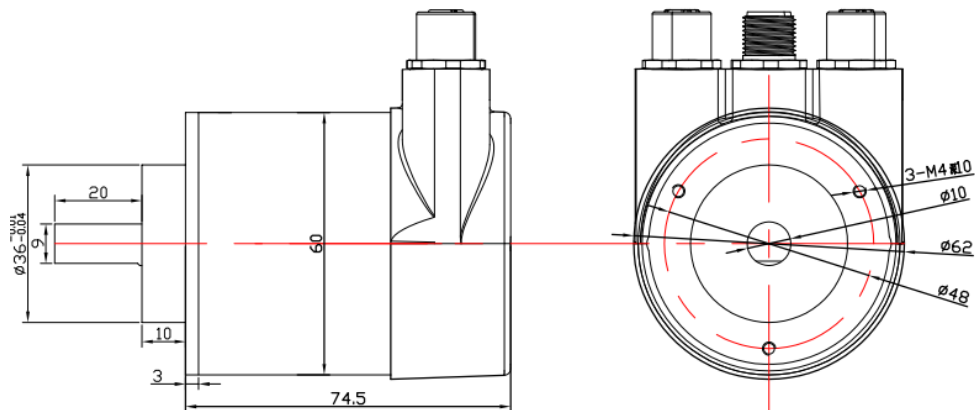
Mechanical dimension drawing:

Clamping synchro flange



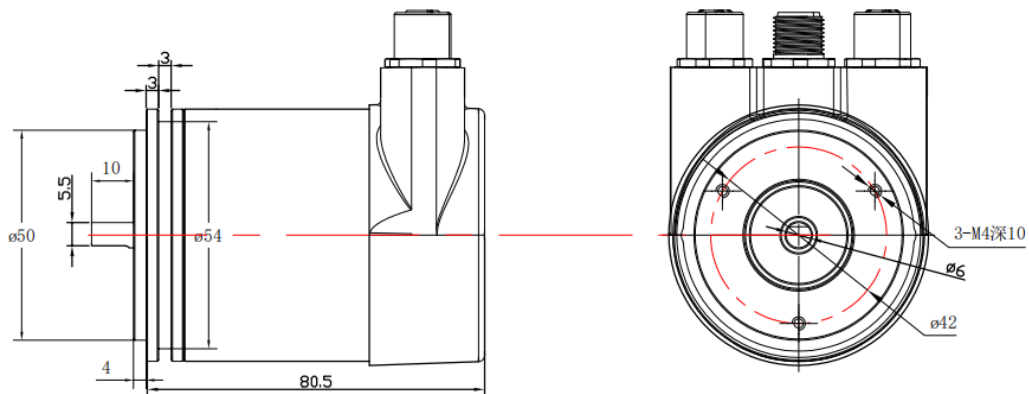
60mm outer diameter 6/8/10mm shaft diameter optional 20mm shaft length

Clamping flange



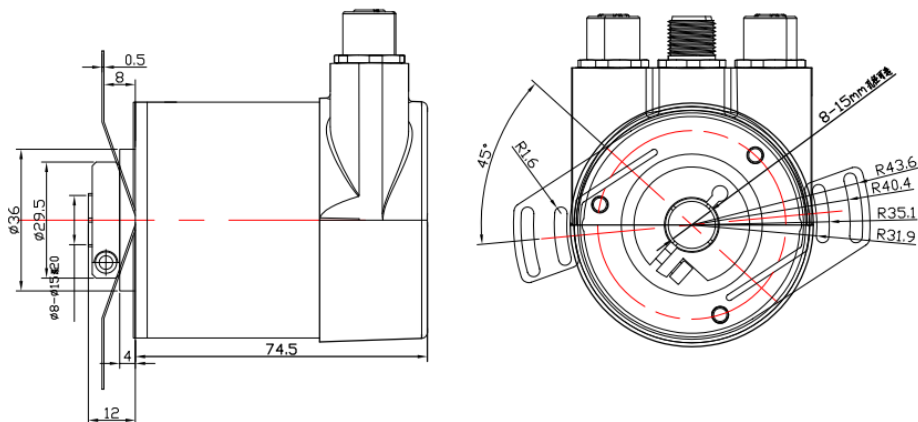
60mm outer diameter 6/8/10mm shaft diameter optional 20mm shaft length

Synchronous Flange/Servo Flange



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

Blind Hole/Half Through Hole Flange



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