

FNC TPD Wheel Series



Features

- Suitable for measuring the length and speed of the moving target by selecting wheel type
- Distance measurement output wavelength and it conforms to the international measurement
- Different wheel diameters and surface options depending on the application
- Protection up to IP65 or IP54
- Easy Mounting
- <300 kHz frequency

Technical data - electrical ratings

Voltage supply	4.75VDC to 30VDC 4.75VDC to 5.5VDC
Protection:	Output short circuit protection. Reverse polarity protection (except 5V version)
Consumption w/o load	≤60 mA (24 VDC)
Reference signal	Zero pulse, width 90° 180°, 360° optional
Output frequency	>200 kHz
Output signals	90° shifted A and B, Z + inverted
Output circuit	Linedriver/RS422 Push-pull short-circuit proof
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-4
Approval	CE

Accessories

Connectors and cables

M12 4 poles, M15 8 poles and for other connector options see page 202

Technical data - mechanical design

Protection DIN EN 60529	IP54, IP65
Operating speed	≤10000 rpm
Starting torque	≤0.020 Nm (IP 67)
Operating temperature	-20...+85 °C
Storage temperature	-30 °C up to +90 °C
Weight approx.	650 g

Resolution

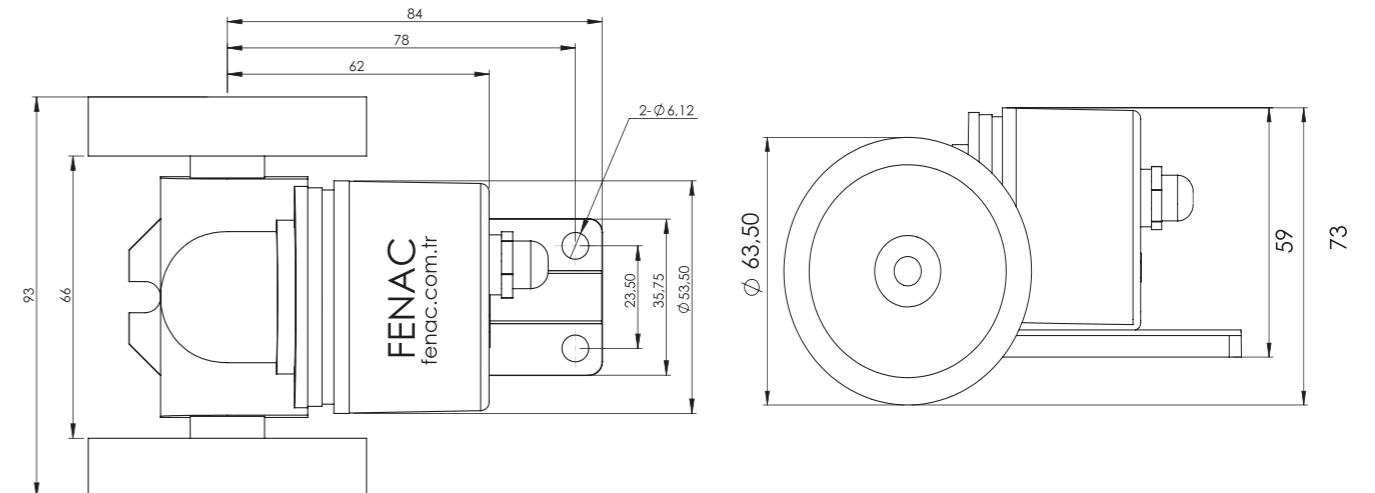
Resolution:

For 250 mm Circumference Wheels		
0,1 = 1PPR = 0,1 mm	= 2500 PPR Encoder	
1 = 1PPR = 1 mm	= 250 PPR Encoder	
2 = 1PPR = 2 mm	= 125 PPR Encoder	
5 = 1PPR = 5 mm	= 50 PPR Encoder	
10 = 1PPR = 10 mm (1 cm)	= 25 PPR Encoder	

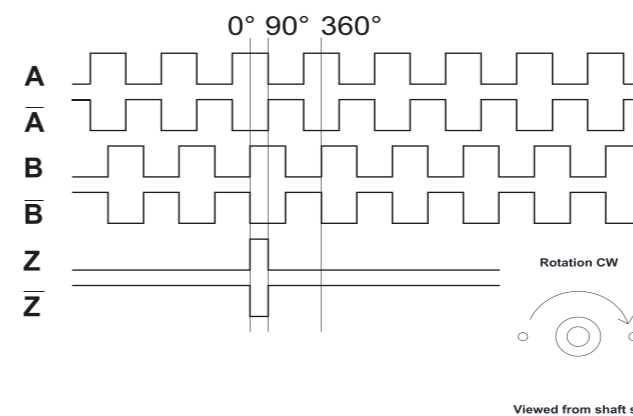
For 200 mm Circumference Wheels		
2 = 1PPR = 2 mm	= 100 PPR Encoder	
100 = 1PPR = 100 mm (10 cm)	= 2 PPR Encoder	

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Mechanical Dimensions



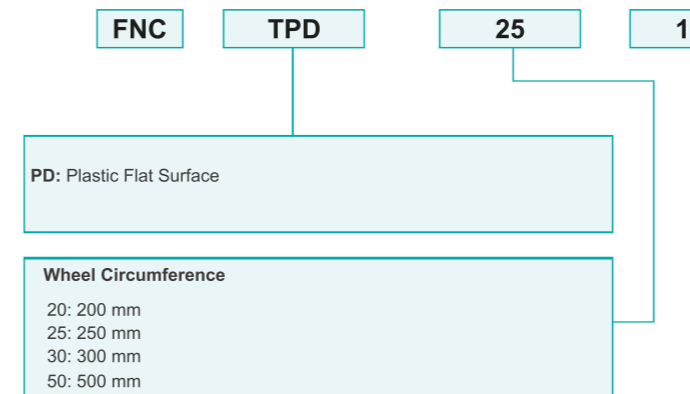
Pulse Diagram



Cable Wiring

Function	Color	Renk	Explanation
+VB	Brown	Kahve	Supply Voltage
GND	White	Beyaz	Ground
A	Green	Yeşil	A Channel
A'	Red	Kırmızı	A Inverted Channel
B	Yellow	Sarı	B Channel
B'	Pink	Pembe	B Inverted Channel
Z	Gray	Gri	Z Channel
Z'	Blue	Mavi	Z Inverted Channel
Shield	Black	Siyah	Shield

System Part Number



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For 200 mm Circumference Wheels		
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For All TPD Models;
5-30VDC, Push Pull Out, A-B Channel