

# Incremental encoders

Optical and Magnetic Programming Options

Programmable Resolution 1...100.000 pulses

## FNC 58H Series Programmable



### Features

- Industry 58 mm standart size,
- Hollow shaft version
- Robust mechanical and electrical construction
- Protection up to IP67
- Up to 100.000 PPR max.
- ≤2 MHz frequency
- Programming vi FNC PT - PC Programming tool
- FNC PT - PS easy programming software

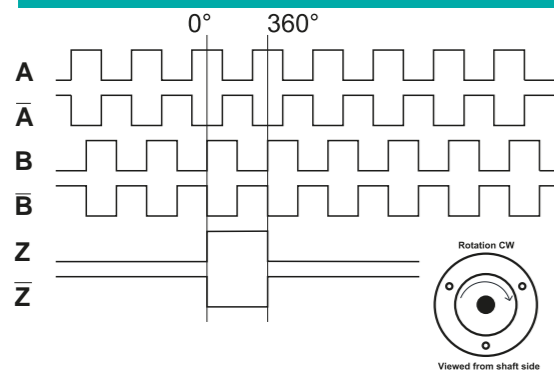
### PPR Options :

1 to 65.536 ppr for magnetic version  
1 to 100.000 ppr for optical version  
up to 2.000.000 on request

### Technical data - electrical ratings

Voltage supply	4.75VDC to 30VDC 4.75VDC to 5.5VDC
Protection	Output short circuit protection. Reverse polarity protection Over voltage protection ( except 5V version )
Consumption w/o load	≤60 mA (5 VDC) ≤35 mA (12 VDC) ≤26 mA (24 VDC) ≤27 mA (30 VDC)
Reference signal	Programmable length, 90° 180°, 270°, 360°
Output frequency	≤2 MHz
Output signals	90° shifted A and B, Z + all channels can be set indepently 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

### Pulse Diagram



### Technical data - mechanical design

Dimensions (flange)	ø58 mm
Shaft loading	≤140 N axial ≤240 N radial
Protection DIN EN 60529	IP54, IP65
Operating speed	≤12000 rpm
Starting torque	≤0.025 Nm (IP65)
Materials	Housing: Aluminum Flange: Aluminum Shaft : Stainless steel
Shaft diameter	6, 8, 10, 12 mm ( other diameters on request )
Bearings lifetime	2x10 <sup>9</sup> rev. at 100% of full rated shaft load (minimum)
Operating temperature	-20...+85 °C
Storage temperature	-30 °C up to +90 °C
Weight approx	250 g

### Cable Wiring

Function	Color	Renk	Explanation
+VB	Brown-Green	Kahve-Yeşil	Vcc
GND	White-Green	Beyaz-Yeşil	GND
A	Green	Yeşil	A
A'	Green-Black	Yeşil-Siyah	A Inverse
B	Yellow	Sarı	B
B'	Yellow-Black	Sarı- Siyah	B Inverse
Z	Gray	Gri	Z
Z'	Gray-Black	Gri-Siyah	Z Inverse
C	Blue	Mavi	Clock
D	Orange	Turuncu	Data
Shield	Black	Siyah	Shield

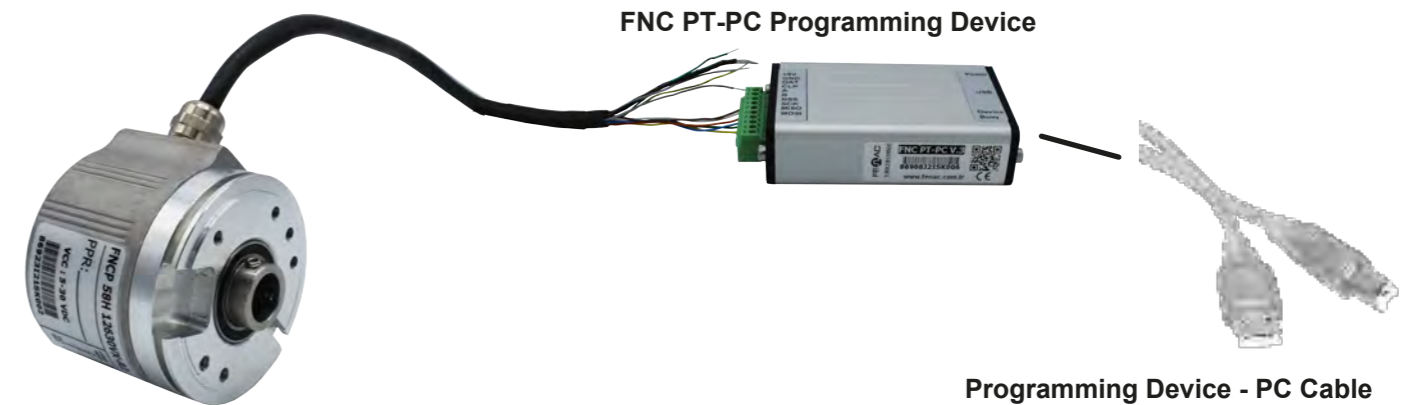
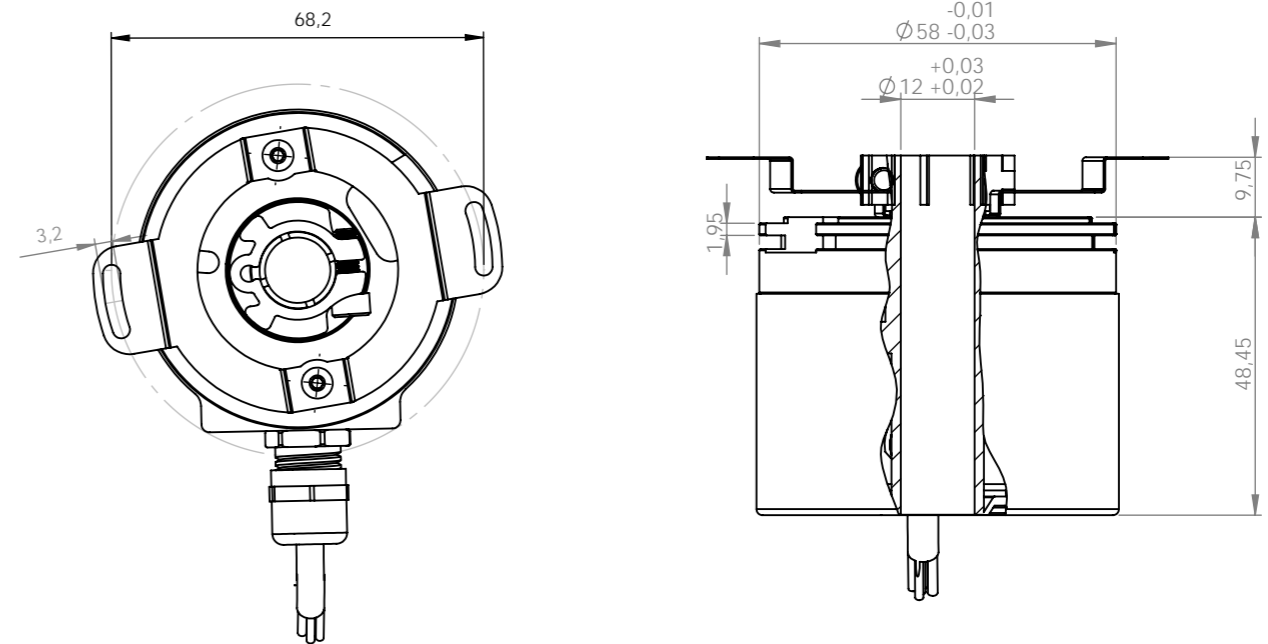


# Incremental encoders

Mechanical Dimensions  
Cable/Connector Wiring, Part Number

## FNC 58H Series Programmable

### Mechanical Dimensions



FNCPT 58HO 10630VX-R2

### Encoder Part Number

FNCPT 58 H O 10 6 30V X - R2

<b>Housing:</b> 58 : 58mm	<b>Electrical Connections:</b> <b>Cable</b> R2 : radial 2m, shield not connected (standart) A2 : axial 2m, shield not connected (standart)
<b>Flange Type</b> H : Hollow Shaft	
<b>O</b> : Optical programmable <b>M</b> : Magnetic programmable	<b>PPR Options :</b> 1 to 65.536 ppr for magnetic version 1 to 100.000 ppr for optical version up to 2.000.000 on request
<b>Shaft diameter : 4, 6, 8, 10, 12</b> Other dimensions on request	
<b>Output Channels</b> 3 : ABZ      4 : AB+A' B'      6 : ABZ+A' B' Z'	<b>Supply Voltage and output circuit :</b> 5V : 5V in / out 245V : 5-30V in 5V out 30V : 5-30V in / out



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## FNC PT-PC Programming Device

### Magnetic Programming PC view

ENCODER PROGRAMMER UTILITY V1.6.14.06.2020

INCREMENTAL PARAMETERS	MAGNETIC PROGRAMMABLE ENCODER	ANGLE
Resolution: 2048 Index Pulse Length: 360° Direction of Rotation: CW		
<b>PULSE DIAGRAM</b> A B Z		
<b>OPERATION</b> READ WRITE <b>STOP TEST</b>	<b>STATUS</b> PROGRAMMER ENCODER 	<b>ENCODER</b> ENCODER PULSE: 1049 ENCODER ANGLE: 184,39
<b>CONFIG FILE</b> OPEN SAVE	TESTING	

### Optical Programming PC view

ENCODER PROGRAMMER UTILITY V1.6.14.06.2020

INCREMENTAL PARAMETERS	OPTICAL PROGRAMMABLE ENCODER	ANGLE
Resolution: 1000000 Z Gate: 360°(A) Direction of Rotation: CW		
<b>PULSE DIAGRAM</b> A B Z		
<b>OPERATION</b> READ WRITE <b>STOP TEST</b>	<b>STATUS</b> PROGRAMMER ENCODER 	<b>ENCODER</b> ENCODER PULSE: 999986 ENCODER ANGLE: 359,99
<b>CONFIG FILE</b> OPEN SAVE	TESTING	