

# Incremental encoders Two Independent / Redundant Outputs

Resolution 1...25.000 pulses

## FNC 58S Double Out Series

### Two Independent Output Options



#### Features

- Industry 58 mm standard size, servo flange
- Robust mechanical and electrical construction
- Protection up to IP67
- Up to 25.000 PPR max.
- <300 kHz frequency
- Redundant Independent Outputs

#### PPR Options :

1 to 128 - 25 - 50 - 100 - 200 - 250 - 300 - 360 - 400 - 500 - 512 - 600 - 720 - 800 - 900 - 1000 - 1024 - 1250 - 1440 - 2000 - 2048 - 2500 - 3000 - 3600 - 4000 - 4096 - 5000 - 6000 - 8192 - 10000 - 12500 - 16384 - 20000 - 25000

#### 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)
Resolution (steps/turn)	1... up to 65536
Reference signal	Zero pulse, width 90° 180°, 360° optional
Optoelectronic life time	100.000 (min)
Output frequency	>200 kHz
Output signals	90° shifted A and B, Z + inverted
Output circuit	Linedriver/RS422 Push-pull short-circuit proof NPN Open Collector
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-4
Approval	CE

#### Technical data - mechanical design

Dimensions (flange)	ø58 mm
Shaft loading	≤80 N axial ≤100 N radial
Protection DIN EN 60529	IP54, IP65
Operating speed	≤10000 rpm
Starting torque	≤0.025 Nm (IP 67)
Materials	Housing: Aluminium Flange: Aluminium 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.	200 g

#### Accessories

**Connectors and cables**  
CRM2312R M23 12 poles female connector or see page 160

**Mounting coupling**  
PF260808 plastic or see page 158

**Mounting accessories**  
YY ASTK spring or see page 156-157

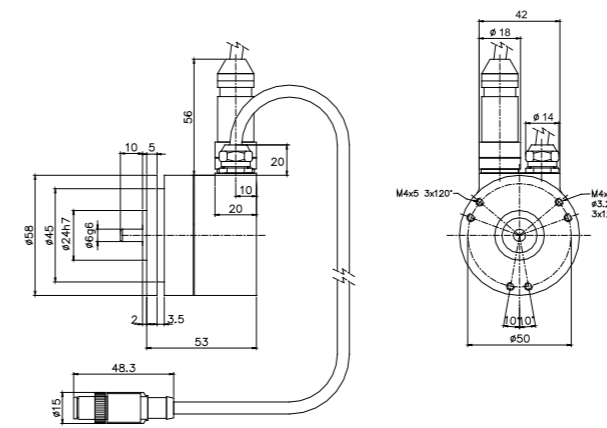


# Incremental encoders

Mechanical Dimensions  
Cable/Connector Wiring, Part Number

## FNC 58S Double Out Series

#### Mechanical Dimensions

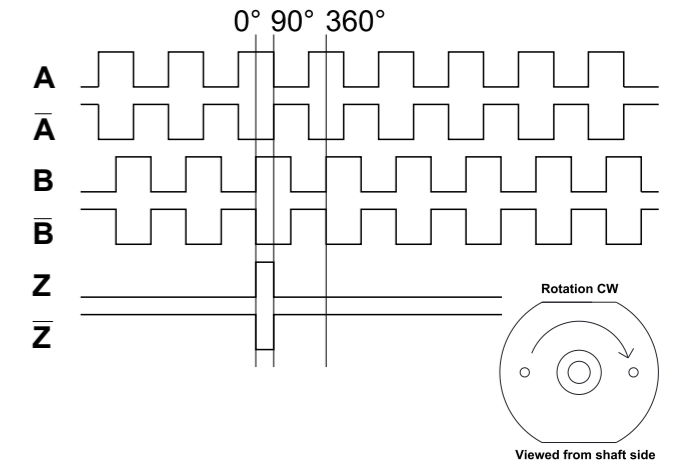


#### Connector Wiring

MM1205		FM1204	
	PIN		PIN
+V	2	0V	1
0V	1	-A	4
A	3	0V	3
B	4	-B	2
0	5		
Gnd	Chassi		

For further information please see page 112

#### 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

#### Encoder Part Number

**FNC 58 S 6 6 30V PPR1 + PPR2**

**Housing:**  
58 : 58mm

**Flange Type:**  
S : Servo flange

**Shaft diameter :** 4, 6, 8, 10, 12, 14  
Other dimensions on request

**Output Channels**  
6 : ABZ+A' B' Z'

**Electrical Connections:**  
Customer Specific / Two Independent Options Available

**PPR Options :**  
1 to 128 - 25 - 50 - 100 - 200 - 250 - 300 - 360 - 400 - 500 - 512 - 600 - 720 - 800 - 900 - 1000 - 1024 - 1250 - 1440 - 2000 - 2048 - 2500 - 3000 - 3600 - 4000 - 4096 - 5000 - 6000 - 8192 - 10000 - 12500 - 16384 - 20000 - 25000

**Supply Voltage and output circuit :**  
5V : 5V in / out  
245V : 5-30V in 5V out  
30V : 5-30V in / out