

Incremental encoders

Resolution 1...2.000.000 pulses



FNC 58E Series

ORDER PART NUMBER



FNC 58E 12630V1024-R2



FNC 58E 12630V1024-R2312R



FNC 58E 12630V1024-R1M2312R



FNC 58E 12630V1024-T1M2312R



FCSF M2312L 100

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 to 2.000.000 ppr
Reference signal	Zero pulse, width 90° 180°, 360° optional
Optoelectronic life time	100.000 (min)
Output frequency	<300 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

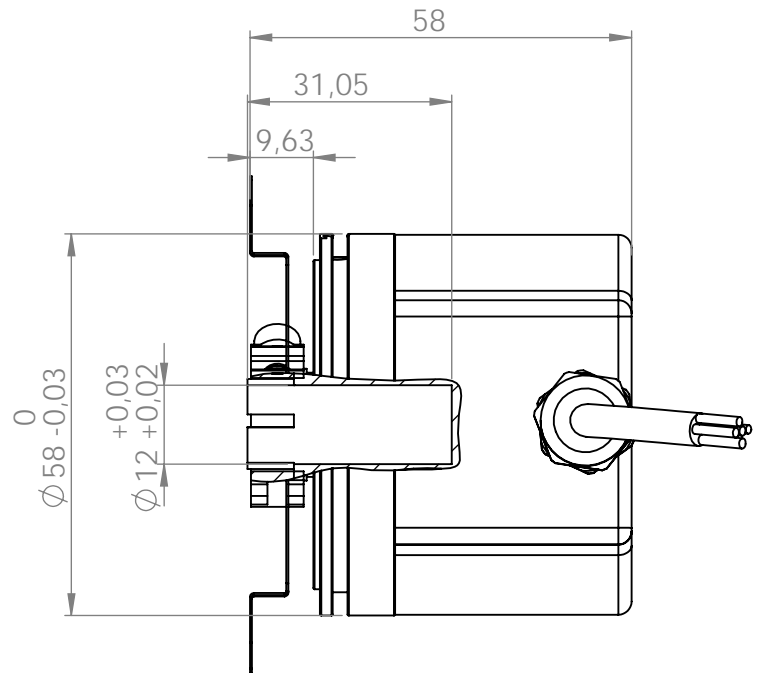
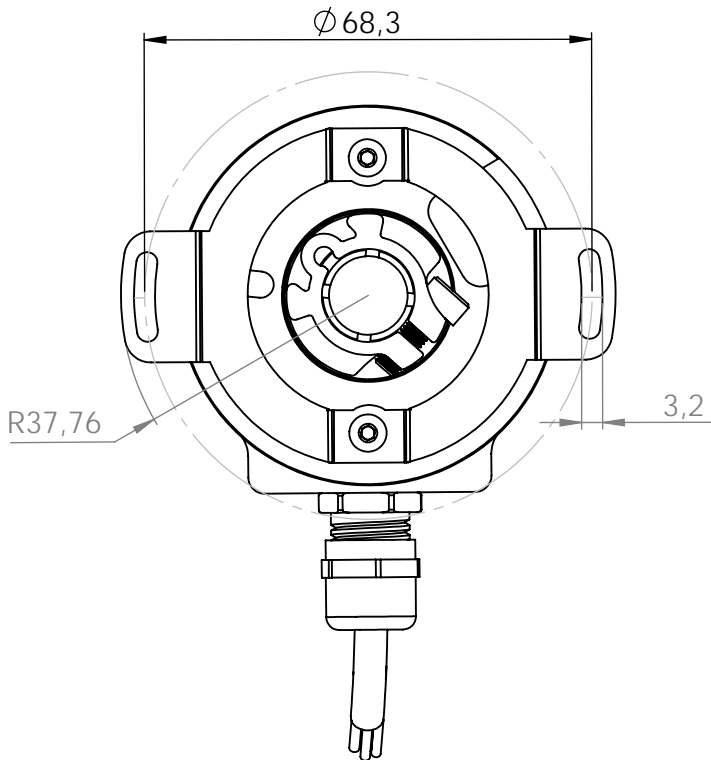
Technical data - mechanical design

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: Aluminum Flange: Aluminum Shaft : Stainless steel
Shaft diameter:	6, 8, 10, 12, 14, 15 mm (other diameters on request)
Bearings lifetime:	2x10 ⁹ rev. at 100% of full rated shaft load (minimum)
Operating temperature	-20...+85 °C
Storage temperature	-30 °C up to +90 °C
Weight approx.	150 g

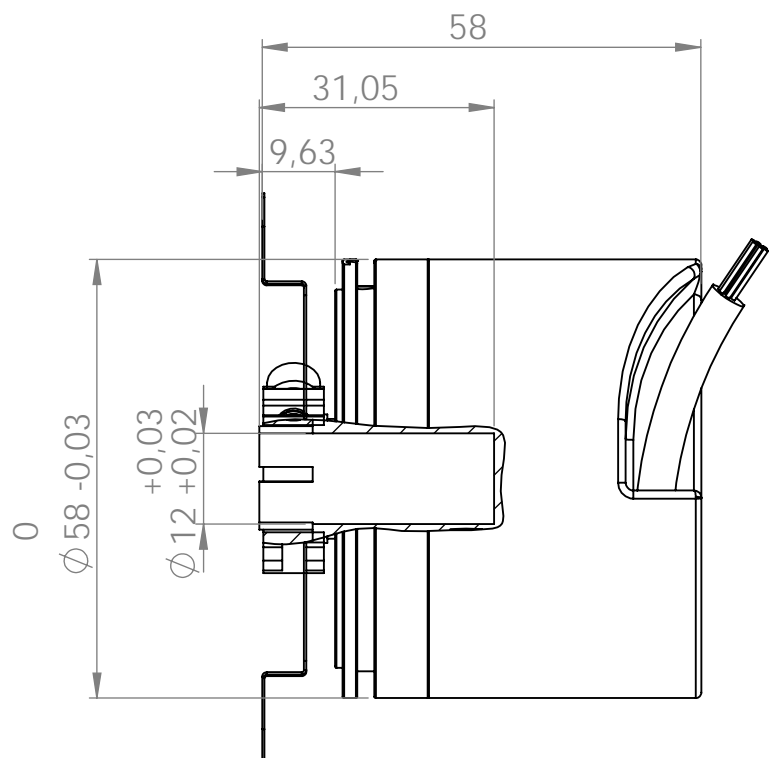
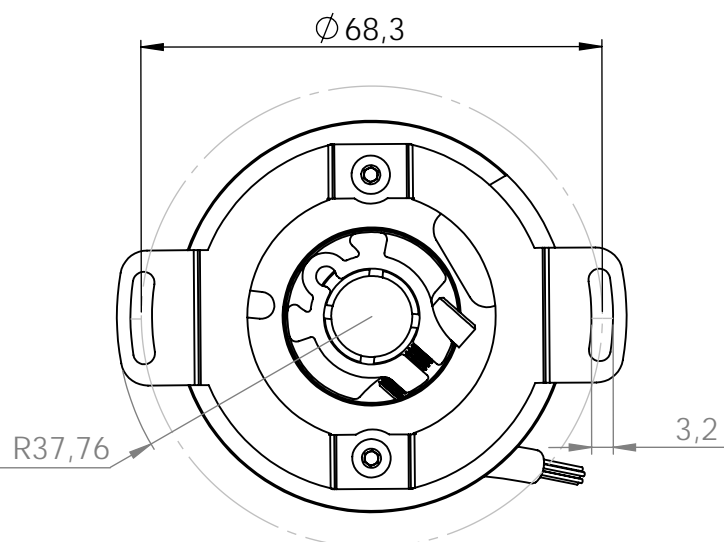
FNC 58E Series

Mechanical Dimensions

Radial Cable Version



Tangential Cable Version



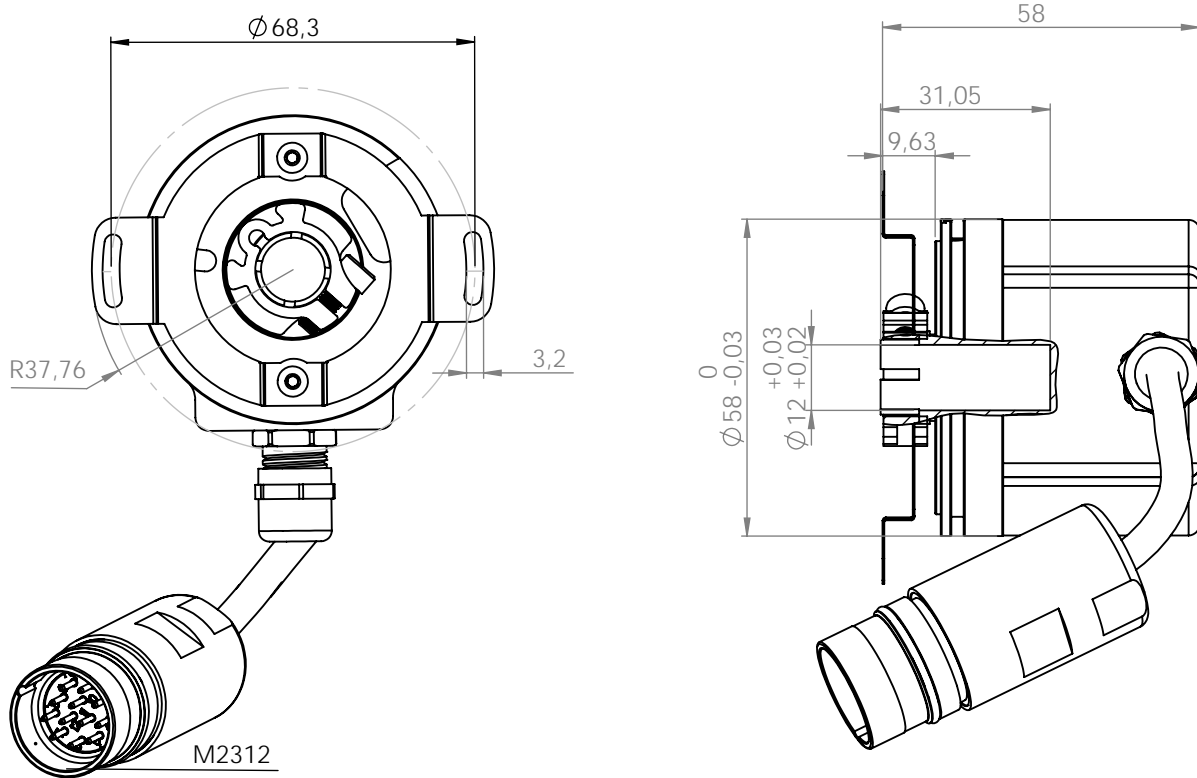
Incremental encoders

Mechanical Dimensions

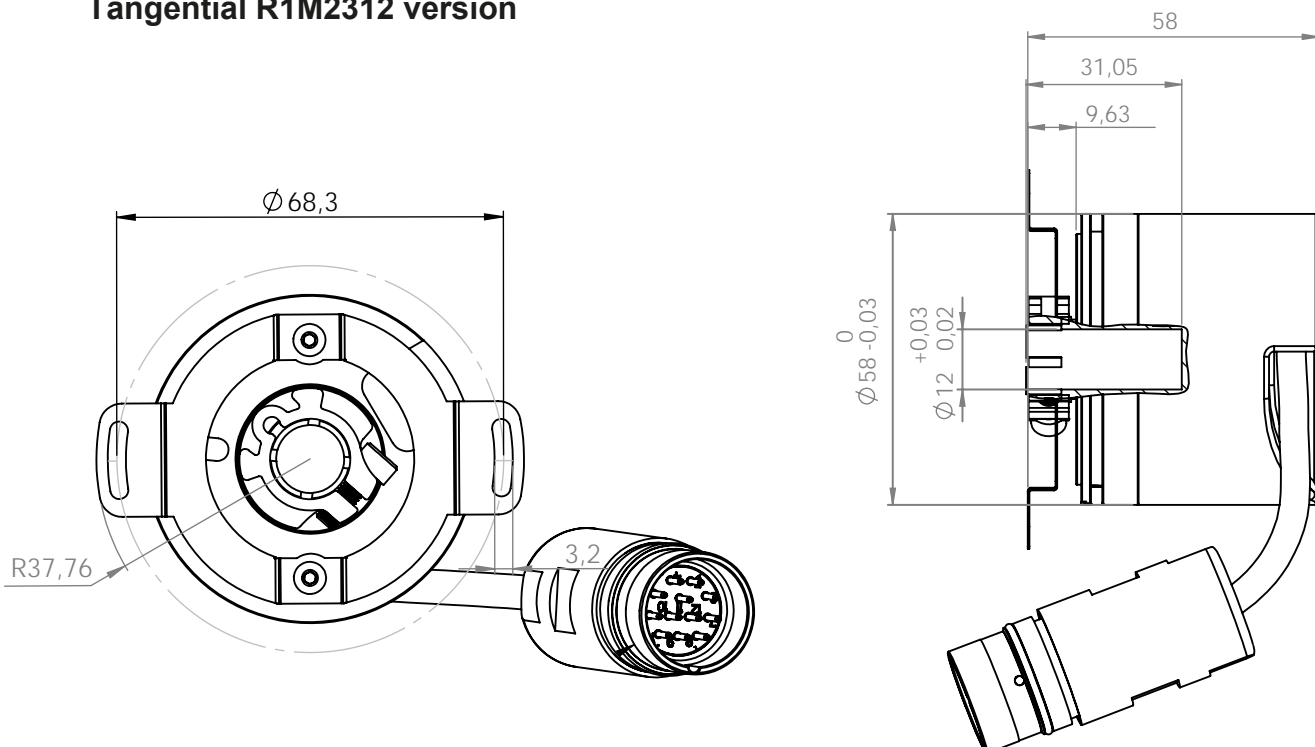
FNC 58E Series

Mechanical Dimensions

Radial R1M2312 version



Tangential R1M2312 version



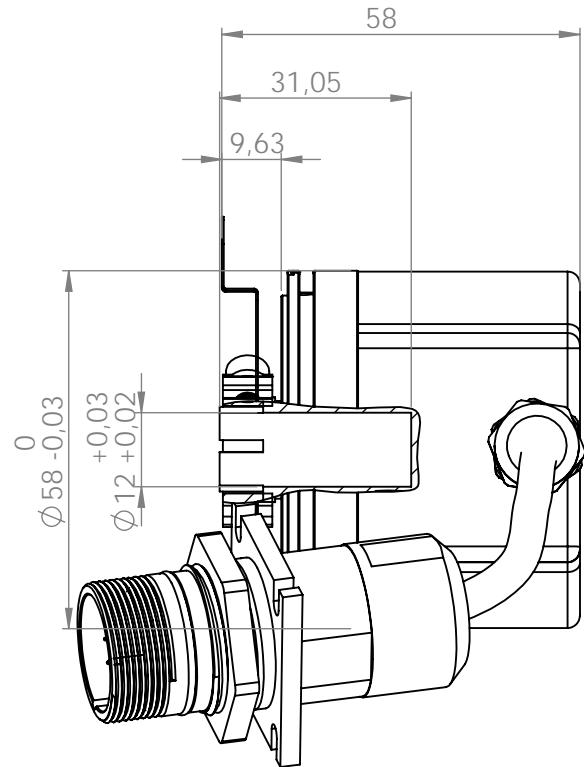
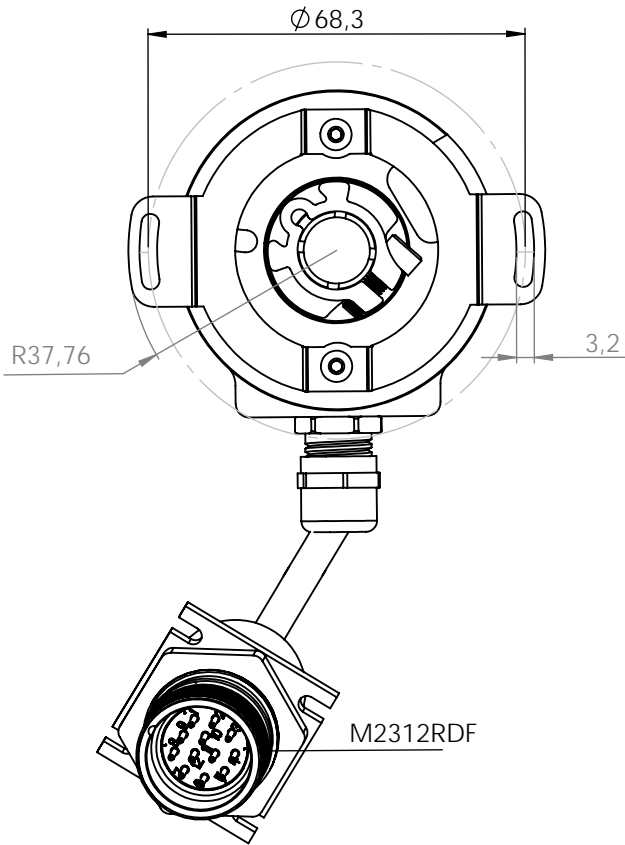
Incremental encoders

Mechanical Dimensions

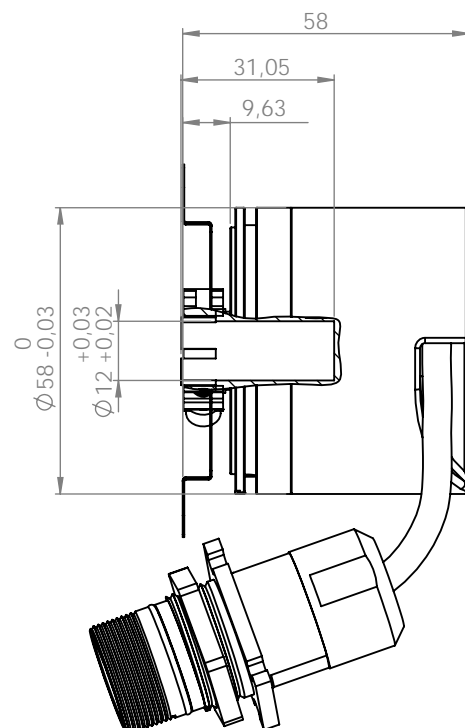
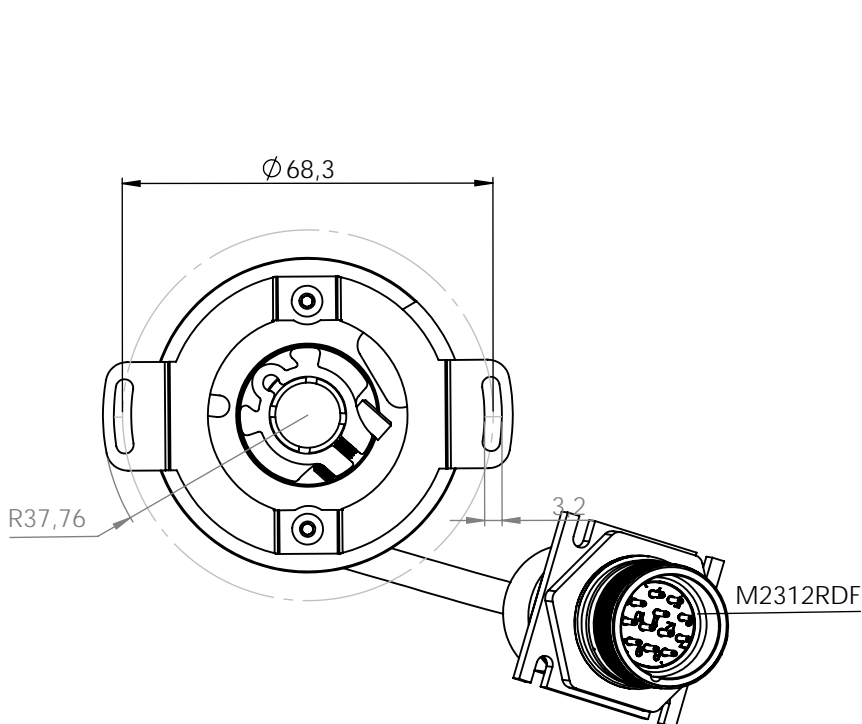
FNC 58E Series

Mechanical Dimensions

Radial R1M2312DF version



Tangential R1M2312DF version



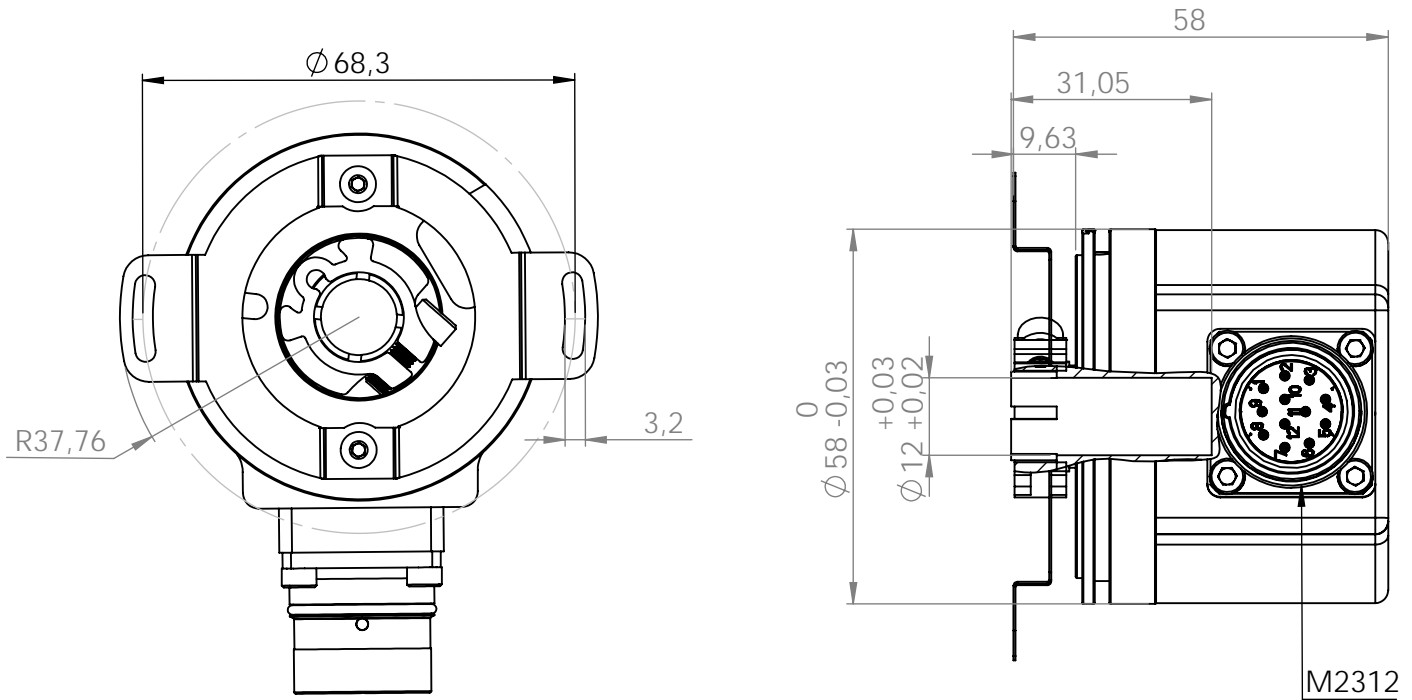
Incremental encoders

Mechanical Dimensions

FNC 58E Series

Mechanical Dimensions

M2312 version



Incremental encoders

Cable/Connector Wiring

FNC 58E Series

Cable / Connector Wiring

Function	R2312R	R1205	R1208	R1505	R1508	R1608
+VB	pin 2-12	pin 1	pin 1	pin 1	pin 1	pin 1
GND	pin 10-11	pin 2	pin 2	pin 2	pin 2	pin 2
A	pin 5	pin 3	pin 3	pin 3	pin 3	pin 3
A'	pin 6		pin 4		pin 4	pin 4
B	pin 8	pin 4	pin 5	pin 4	pin 5	pin 5
B'	pin 1		pin 6		pin 6	pin 6
Z	pin 3	pin 5	pin 7	pin 5	pin 7	pin 7
Z'	pin 4		pin 8		pin 8	pin 8
Connector						
Pin Design						

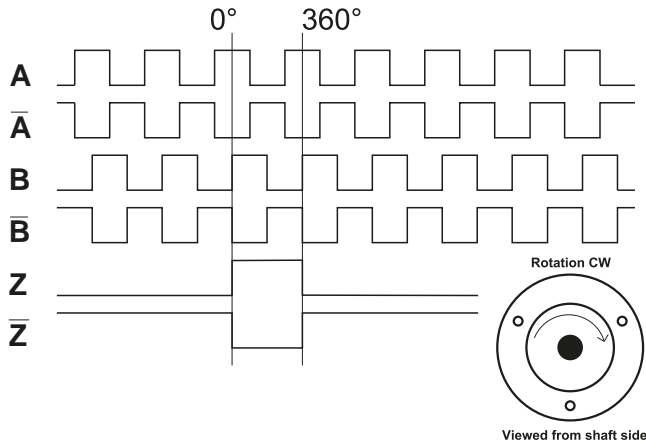
** for other connector options visit www.fenac.com.tr

Cable Wiring

Function	Color	Renk	Farbe	Цвет	颜色
+VB	● Brown	Kahve	Braun	Коричневый	棕色的
GND	○ White	Beyaz	Wei	Белый	白色的
A	● Green	Yeil	Grn	Зеленый	绿
A'	● Red	Kirmızı	Rot	Красный	红色的
B	● Yellow	Sarı	Gelb	Желтый	黄色的
B'	● Pink	Pembe	Rosa	Розовый	粉色的
Z	● Gray	Gri	Grau	Серый	灰色的
Z'	● Blue	Mavi	Blau	Синий	蓝色的
Shield	Black	Siyah	Schwarz	Чернить	黑色的

FNC 58E Series

Pulse Diagram



Encoder Part Number

FNC 58 E 15 4 30V 1024 - R2

Housing:
58 : 58 mm

Flange Type:
E : End hollow shaft

Shaft diameter : 6, 8, 10, 12, 14, 15 mm
Other dimensions on request

Output Channels
1 : A
2 : AB
3 : ABZ
4 : AB+A' B'
6 : ABZ+A' B' Z'

Electrical Connections:

Cable

R2 : radial 2m, shield not connected (standart)
A2 : axial 2m, shield not connected (standart)
T2 : tangent 2m, shield not connected (standart)

Connector:

R1205 R1607
R1208 R2312
R1605

PPR Options :

1 to 2.000.000 PPR All pulses

Supply Voltage and output circuit :

5V : 5V in / out
245V : 5-30V in 5V out
30V : 5-30V in / out