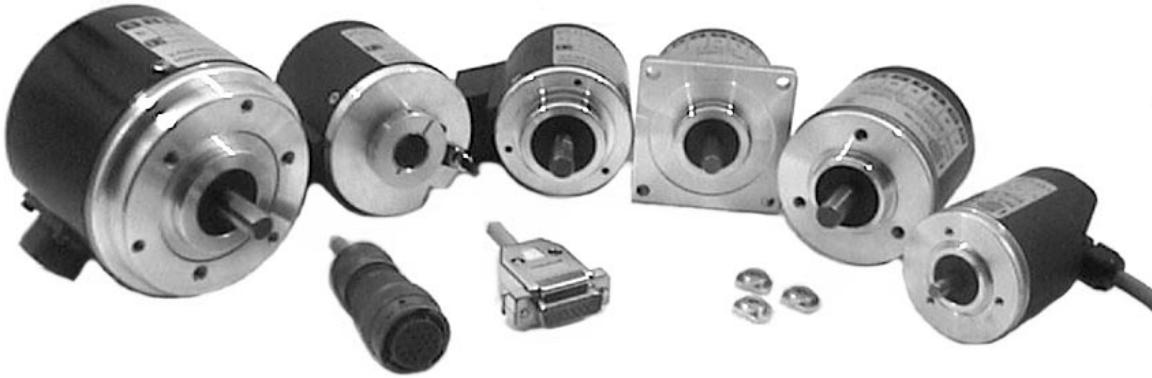




**EA50 A
EA58B-C
EA63A-D-E-G
EA90A EA115A
ABSOLUTE MONOTURN ENCODERS**



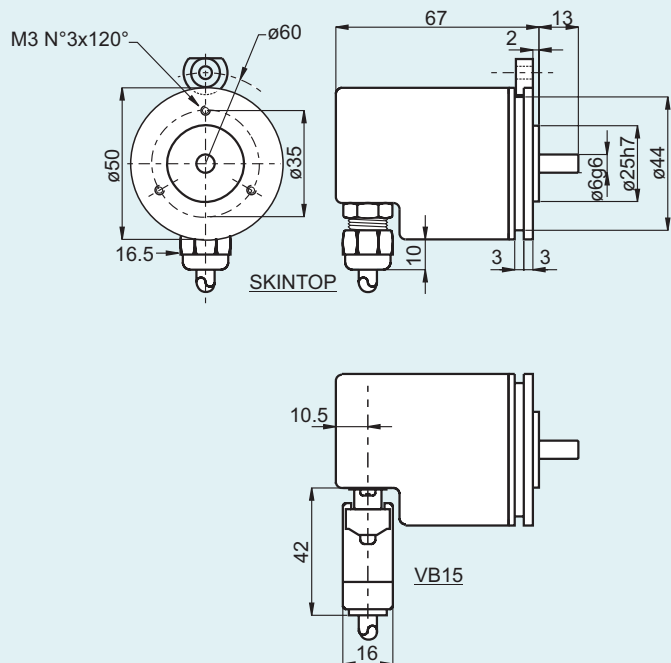
Description

The absolute monoturn encoders series EA is made to be adapted to every type of application, it is available with resolutions up to 4096 imp/turn and in several models with different types of flanges which allow the use in even the worse conditions. The EA encoders are available with output cable or connector and can reach a protection up to IP67 according to the model. Above the output parallel configurations to the signals with the electronics NPN, NPN Open Collector, PNP and PUSH PULL a Gray or Binary code are available with Serial output interface and INTERBUS.

General Characteristics EA50A

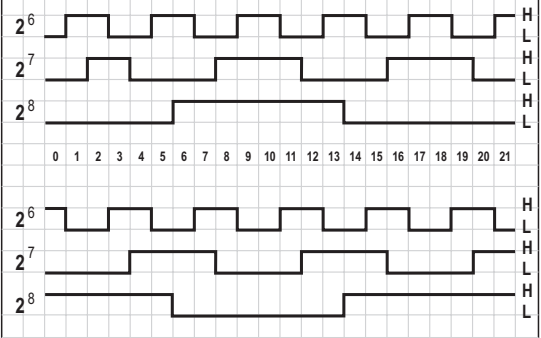
Resolution	1 / 512 90 excess 19 (bit 7) 180 excess 38 (bit 8) 360 excess 76 (bit 9)
Power supply	5 + 8 / 28 Vdc
Current consumption without load	150 mA
Max commutable current	40 mA per channel
Electronic output configuration	NPN 4.7K (negative logic) NPN Open Collector (negative logic) PNP (positive logic) PNP Open Collector (positive logic)
Max frequency output	50 KHz (LSB) 200 KHz (code)
R.P.M. Max	50 KHz (LSB) 200 KHz (code)
Max shaft load	10 N (1Kp) axial 20N (2Kp) radali
Protection	IP64 - Standard IP66 / 67- Optional (with Skintop)

EA50A



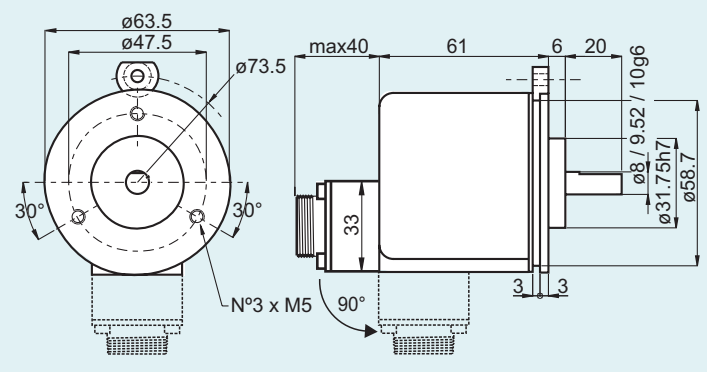
Electronic characteristics

Resolution	1 / 4096
	90 excess 19 (bit 7)
	180 excess 38 (bit 8)
	360 excess 76 (bit 9)
	720 excess 152 (bit 10)
	1440 excess 304 (bit 11)
	2880 excess 608 (bit 12)
Power supply	5 + 8 / 28 Vdc
Current consumption without load	Gray code 150 mA Binary code 250 mA
Max commutable current	30 mA per channel
Electronic output Configuration	NPN/ NPN OPEN COLLECTOR / PNP / PUSH PULL
Max output frequency	50 KHz (LSB) 200 KHz (code)

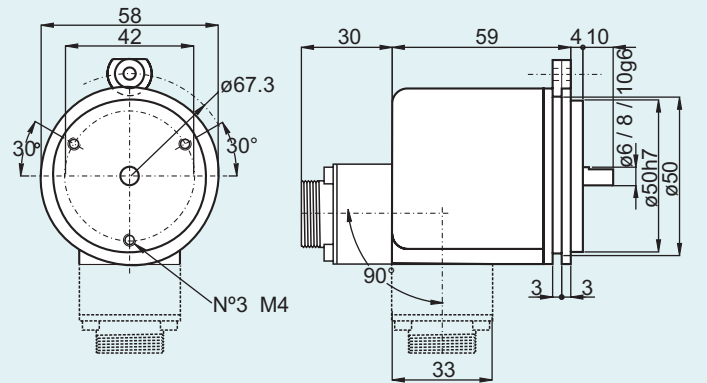


A standard input of "polarization" U/D is present and has the function to invert the 2° bit (MSB), so it is possible to determine the increase of the code compared to the direction of rotation of the shaft. If the U/D input will be connected to the positive power supply the code will have a positive increase with clockwise rotation of the shaft. If it is not connected or connected to the negative power supply the code will have a positive increase with anti-clockwise rotation.

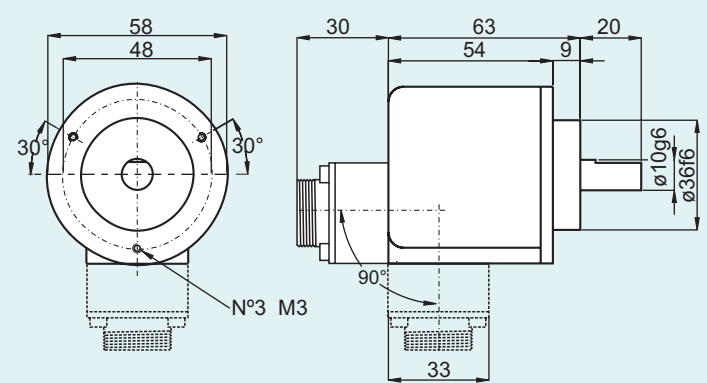
EA63A



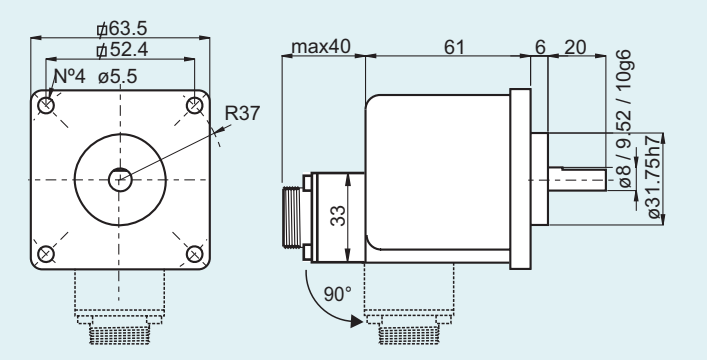
EA58B



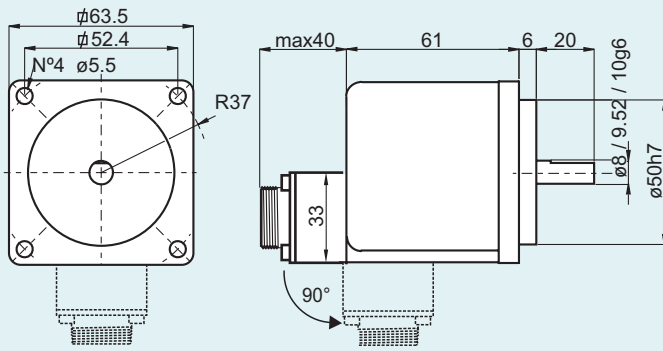
EA58C



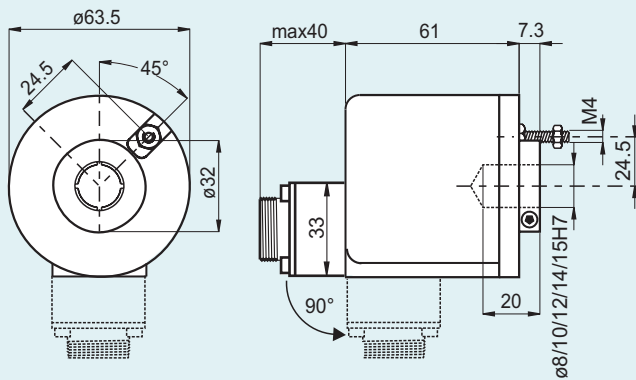
EA63D



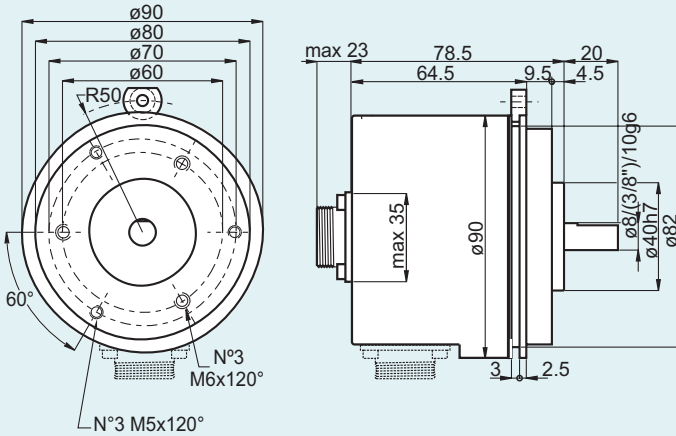
EA63E



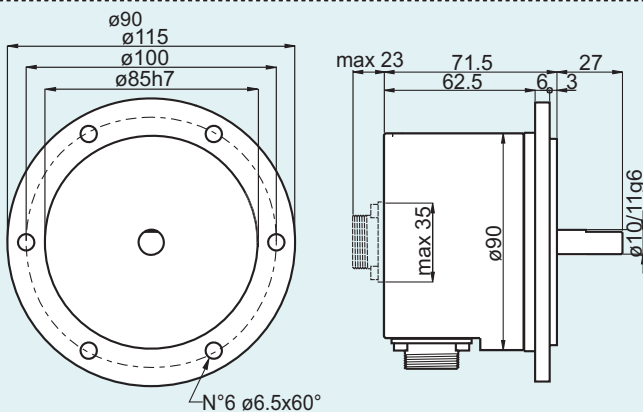
EA63G



EA90A



EA115A



Mechanical characteristics

Shaft diameter (mm)	ø6 g6 --58B ø8 g6 --58B--63A/D/E--90A ø9.52(3/8'') g6 --63A/D/E--90A ø10 g6 --58B/C--63A/D/E--90A--115A ø11 g6 --115A
Hole diameter (mm)	ø8 H7 --63G ø10 H7 --63G ø12 H7 --63G ø14 H7 --63G ø15 H7 --63G
R.P.M. Max	6000 continuous 3000 continuous for --63G 3000 with IP66 / IP67
Max shaft load	10 N (1 Kp) axial with shaft ø6 20 N (20p) radial with shaft ø6 200 N (20 Kp) axial 200 N (20Kp) radial
Shock	50 G per 11 msec (with plastic disc) 20 G per 11 msec (with glass disc)
Vibrations	10G 10 + 2000 Hz
Bearings life	10 ⁹ revolutions
Bearings	n°2 ball bearings
Shaft material	Stainless steel AISI303
Body material	Aluminium-UNI 5076 --58B/C--63A/D/E/G aluminium-UNI 9002/5 --50A--90A-115A
Cover Material	--50A--58B/C--63A/D/E/G Special plastic reinforced with glass fibre --90A--115A Aluminium
Weight	~ 250g --50A ~ 350g --58B/C--63A/D/E/G ~ 750 g --90A--115A
Accessories	set of 3 servo fasteners for mod.--50A--63A/B/C--90A Cod.ord.: 94080001

Environmental Characteristics

Protection	IP54 standard --63G IP64 standard --58B/C--63A/D/E--90A--115A IP66 / IP67 optional --58B/C--63A/D/E--90A
Operating temperature	0° + +60°C
Storage Temperature	-25° + +70°C

Colours and standard connections

CABLE COLOURS	FUNCTION	B / G	MILITARY PIN "M19MP"	MILITARY PIN "M26MP"
Green	bit 1 (LSB)	B ⁰ /G ⁰	A	A
Yellow	bit 2	B ¹ /G ¹	B	B
Blu	bit 3	B ² /G ²	C	C
Brown	bit 4	B ³ /G ³	D	D
Pink	bit 5	B ⁴ /G ⁴	E	E
White	bit 6	B ⁵ /G ⁵	F	F
Gray	bit 7	B ⁶ /G ⁶	G	G
Violet	bit 8	B ⁷ /G ⁷	H	H
Gray-pink	bit 9	B ⁸ /G ⁸	J	J
White-green	bit 10	B ⁹ /G ⁹	K	K
Brown-green	bit 11	B ¹⁰ /G ¹⁰	L	L
White-yellow	bit 12	B ¹¹ /G ¹¹	M	M
	/	/	N	N-P-R-S T-U-W-X
Yellow-brown	LATCH	/	R	Y
White-gray	STROBE	/	S	Z
Black	0 Volt	/	T	c
Red-blu	U / D	/	U	a
Red	+ Vdc	/	V	b

Ordering codes

EA 63 A 512 G 8/28 N N S 10 X 6 MA R . XXX

In case of particular Customer variant separate with a full stop

EA = Monoturn Absolute Encoder

58 = Body dimension
63 = Body dimension
90 = Body dimension
115 = Body dimension

A = mod.EA63 / 90 / 115
B = mod.EA58
C = mod.EA58
D = mod.EA63
E = mod.EA63
G = mod.EA63

Type of flanges

8 / 16 / 32 / 64 / 128 / 256 / 512 / 1024 / 2048 / 4096

90 excess 19 (bit 7)
180 excess 38 (bit 8)
360 excess 76 (bit 9)
720 excess 152 (bit 10)
1440 excess 304 (bit 11)
2880 excess 608 (bit 12)

Resolutions

N.B.:For impulse availability contact directly our offices

B = Binary
G = Gray

Code

5
 8 ÷ 28

Encoder power supply (Vdc)

N = NPN (Standard negative logic)
C = NPN OPEN COLLECTOR (Standard negative logic)
R = PNP (Standard positive logic)
P = PUSH PULL (Standard positive logic)
PA = PUSH PULL (short circuit protection)
S = SERIAL SYNCHRONOUS INTERFACE
I = INTERBUS

Electronic output configuration

N.B.: For the optionals on the output configurations see the output incremental connections card

XXX = Special Customer variants indicated by a progressive number from 001 to 999

R = radial
A = axial

PA = Standard output cable 1.5 m
MA = Connector "MS" type 19 poles
MB = Connector "MS" type 26 poles
VA = Float chamber connector 9 poles
VB = Float chamber connector 15 poles
VC = Float chamber connector 15 poles high density version (pin on 3 lines)
VD = Float chamber connector 25 poles

3 = 3000 with IP66 / IP67 and EA63G
6 = 6000

R.P.M.

X = IP54 for EA63G
 IP64 excluding EA63G
S = optional IP66 / IP67 escluso EA63G / EA115

Protection

6 = ø 6g6 mm --50A --58B
8 = ø 8g6 mm --58B --63A / D / E --90
9 = ø 9.52g6 mm --63 A / D / E --90
10 = ø 10g6 mm --58B / C--63A / D / E --90--115
11 = ø 11g6 mm --115

Shaft diameters

8 = ø 8H7 mm
10 = ø 10H7 mm
12 = ø 12H7 mm
14 = ø 14H7 mm
15 = ø 15H7 mm

Shaft diameters only for mod.63G

N.B.: Indicate only if required

L = Latch to indicate only with binary code
S = Strobe to indicate only with binary code

Options

N = Negative
P = Positive
X = Indicate with "S" and "I" output exit

Logic

