MAIN FEATURES

Encoder with potentiometric output signal.
Rotary potentiometer is fitted in a sturdy housing and it is supported by two ball bearings.
It assures excellent lifetime, speed and high accuracy.

- Singleturn or multiturn models available
- Cable output, connectors available on cable end
- Mounting by round flange

UNI EN ISO 9001:2008

ORDERING CODE

EP A 103/10 P R .XXX

SERIES
rotary potentiometer EP

MODEL
fixing flange screw holes ø 30 mm A
fixing flange screw holes ø 30 mm with cogged shaft B

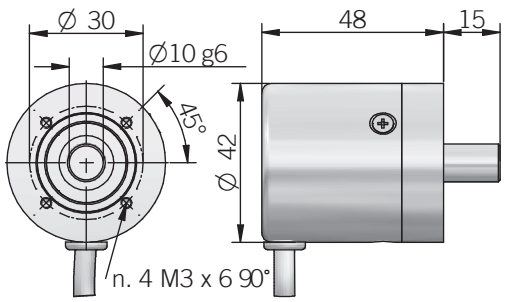
RESISTIVE VALUE
1k ohm / 1 turn 102/1
5k ohm / 1 turn 502/1
10k ohm / 1 turn 103/1
5k ohm / 3 turns 502/3
10k ohm / 3 turns 103/3
1k ohm / 10 turns 102/10
5k ohm / 10 turns 502/10
10k ohm / 10 turns 103/10

OUTPUT TYPE
cable (standard length 1,5 m) P

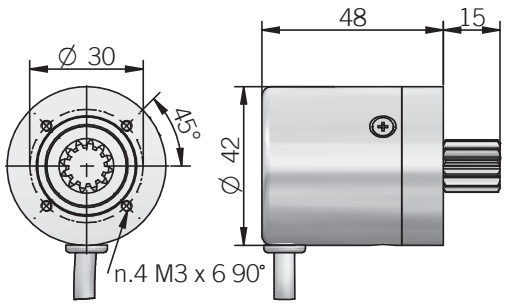
DIRECTION TYPE
axial A
radial R

VARIANT
custom version XXX

EP A



EP B



dimensions in mm

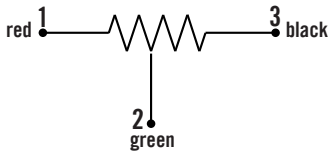
Cogged shaft specifications
z = 12
m = 1
p = 3,1415

Formulas
modulus: m = Dp/z
step: p = m·¶
primitive diameter: Dp = m·z
cog number: z = Dp/m

MECHANICAL SPECIFICATIONS

Shaft diameter	mod. EPA ø 10 mm mod. EPB cogged shaft
Enclosure rating	IP 54 (IEC 60529)
Shock	50 G, 11 ms
Vibration	see table
Body material	EN-AW 2011 aluminum
Shaft material	1.4305 / AISI 303 stainless steel (EP A) steel UNI C45 (EP B)
Housing material	PA 66 glass fiber reinforced
Bearings	2 ball bearings
Limit stop	automatic clutch (no stop)
Operating temperature	0° ... +80°C (+32° ... +176°F)
Storage temperature	-25° ... +85°C (-13° ... +185°F)
Weight	150 g (5,29 oz)

ELECTRICAL CONNECTIONS



GENERAL SPECIFICATION

Model	Resistive value (Ohm)	Mech. rotation	Electrical rotation	Element technology	Tolerance	Linearity	Minimum resistance (Ohm)	Power rating (70 °C)	Life (shaft revolutions)	Vibration
102/1	1 k	320 ± 5°	same as mech	conductive plastic	±10%	±1%	0,2%	1 W	10'000'000	15 G, 10 ... 150 Hz
102/10	1 k	3600 +10° -0°	same as mech	wirewound	±5%	±0,25%	1	2 W	1'000'000	15 G, 10 ... 2000 Hz
502/1	5 k	320 ± 5°	same as mech	conductive plastic	±10%	±1%	0,2%	1 W	10'000'000	15 G, 10 ... 150 Hz
502/3	5 k	1080 +10° -0°	same as mech	wirewound	±5%	±0,25%	1	1 W	300'000	15 G, 10 ... 2000 Hz
502/10	5 k	3600 +10° -0°	same as mech	wirewound	±5%	±0,25%	1	2 W	1'000'000	15 G, 10 ... 2000 Hz
103/1	10 k	300 ± 5°	270 ± 10°	conductive plastic	±10%	±5%	4	1 W	50'000	10 G, 10 ... 150 Hz
103/3	10 k	1080 +10° -0°	same as mech	wirewound	±5%	±0,25%	1	1 W	300'000	15 G, 10 ... 2000 Hz
103/10	10 k	3600 +10° -0°	same as mech	wirewound	±5%	±0,25%	1	2 W	1'000'000	15 G, 10 ... 2000 Hz