EP A / B
ROTARY POTENTIOMETER

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, connector available on cable end
- Mounting by round flange

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

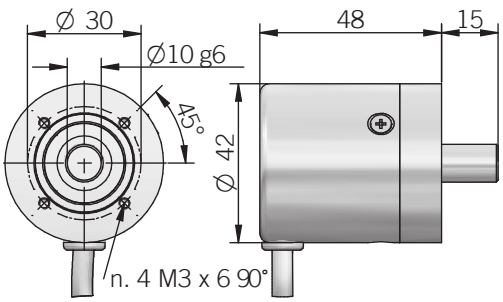
RESISTIVE VALUE
1k ohm / 1 turn 102/1
5k ohm / 1 turn 502/1
10k ohm / 1 turn 103/1
5k ohm / 3 turns 502/3
10k ohm / 3 turns 103/3
1k ohm / 10 turns 102/10
5k ohm / 10 turns 502/10
10k ohm / 10 turns 103/10

OUTPUT TYPE
cable (standard length 1,5 m) P
preferred cable lengths 2 / 3 / 5 / 10 m, to be added after DIRECTION TYPE (eg. PR5)

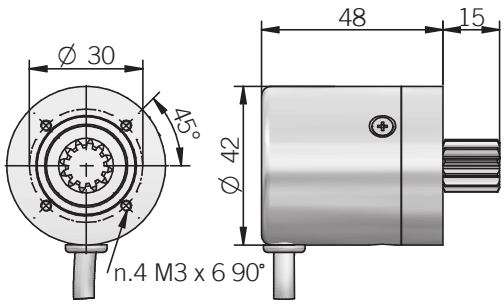
DIRECTION TYPE
axial A
radial R

VARIANT
custom version XXX

A



B



dimensions in mm

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

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

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

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
Bearing stage 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	n.2 ball bearings
Limit stop	automatic clutch (no stop)
Operating temperature[1, 2]	0° ... +80°C (+32° ... +176°F)
Storage temperature[2]	-25° ... +85°C (-13° ... +185°F)
RoHS	according to 2015/863/EU directive
UL / CSA	certificate n. E212495

[1] measured on the transducer flange
[2] condensation not allowed

ELECTRICAL CONNECTIONS