

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.

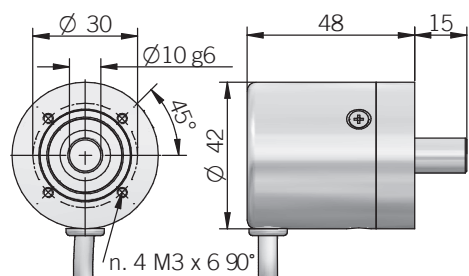
- Singleturn or multiturn models available
- Cable output, connector available on cable end
- Mounting by round flange



ORDERING CODE

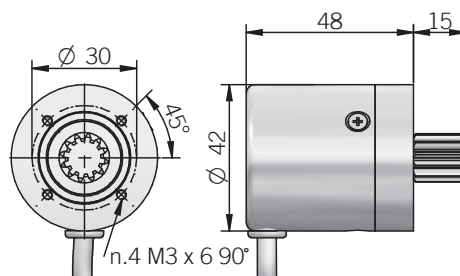
EP	A	103/10	P	R	.XXX
SERIES rotary potentiometer EP					
MODEL fixing flange screw holes $\varnothing$ 30 mm A fixing flange screw holes $\varnothing$ 30 mm with cogged shaft B					
RESISTIVE VALUE 1k ohm / 1 turn 102/1 5k ohm / 1 turn 502/1 10k ohm / 1 turn 103/1 5k ohm / 3 turns 502/3 10k ohm / 3 turns 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



dimensions in mm

B

**Cogged shaft specifications**

$z = 12$
 $m = 1$
 $p = 3,1415$

Formulas

modulus $m = Dp / z$
 step $p = m \times \pi$
 primitive diameter $Dp = m \times z$
 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	$320 \pm 5^\circ$	same as mech	conductive plastic	$\pm 10 \%$	$\pm 1 \%$	0,2 %	1 W	10'000'000	15 G, 10 ... 150 Hz
102/10	1 k	$3600 +10^\circ -0^\circ$	same as mech	wirewound	$\pm 5 \%$	$\pm 0,25 \%$	1	2 W	1'000'000	15 G, 10 ... 2000 Hz
502/1	5 k	$320 \pm 5^\circ$	same as mech	conductive plastic	$\pm 10 \%$	$\pm 1 \%$	0,2 %	1 W	10'000'000	15 G, 10 ... 150 Hz
502/3	5 k	$1080 +10^\circ -0^\circ$	same as mech	wirewound	$\pm 5 \%$	$\pm 0,25 \%$	1	1 W	300'000	15 G, 10 ... 2000 Hz
502/10	5 k	$3600 +10^\circ -0^\circ$	same as mech	wirewound	$\pm 5 \%$	$\pm 0,25 \%$	1	2 W	1'000'000	15 G, 10 ... 2000 Hz
103/1	10 k	$300 \pm 5^\circ$	$270 \pm 10^\circ$	conductive plastic	$\pm 10 \%$	$\pm 5 \%$	4	1 W	50'000	10 G, 10 ... 150 Hz
103/3	10 k	$1080 +10^\circ -0^\circ$	same as mech	wirewound	$\pm 5 \%$	$\pm 0,25 \%$	1	1 W	300'000	15 G, 10 ... 2000 Hz
103/10	10 k	$3600 +10^\circ -0^\circ$	same as mech	wirewound	$\pm 5 \%$	$\pm 0,25 \%$	1	2 W	1'000'000	15 G, 10 ... 2000 Hz

MECHANICAL SPECIFICATIONS

Shaft diameter	mod. EPA $\varnothing 10$ 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	2 ball bearings
Limit stop	automatic clutch (no stop)
Operating temperature	$0^\circ \dots +80^\circ\text{C}$ ($+32^\circ \dots +176^\circ\text{F}$)
Storage temperature	$-25^\circ \dots +85^\circ\text{C}$ ($-13^\circ \dots +185^\circ\text{F}$)
RoHS	according to 2011/65/EU directive
UL / CSA certificate	E212495

ELECTRICAL CONNECTIONS