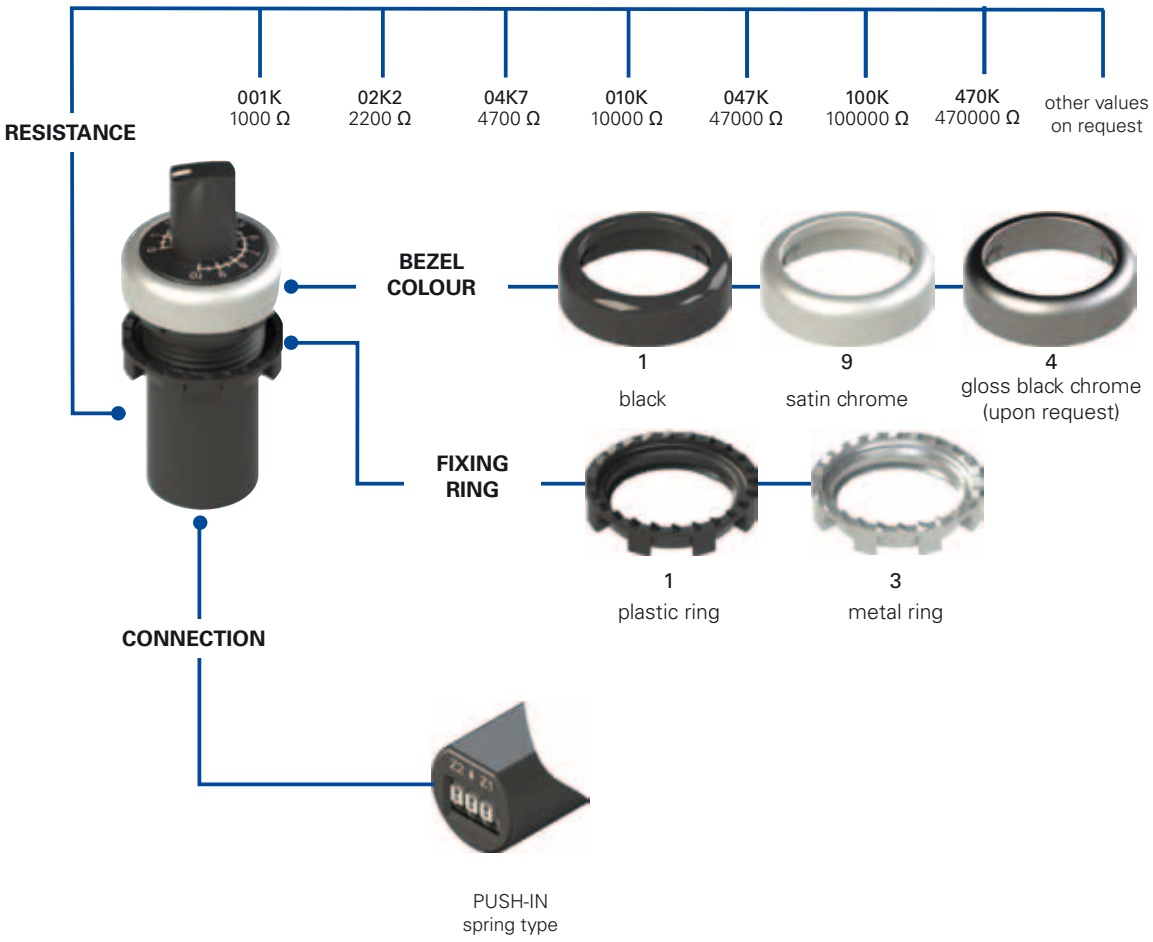
Selection diagram



Code structure

Attention! The feasibility of a code number does not mean the effective availability of a product. Please contact our sales office.

E6 1DM02K2-D111

Fixing ring and shaped ring	
1	plastic ring (standard)
2	plastic fixing ring and shaped ring
3	metal ring
4	metal fixing ring and shaped ring

Resistance	
001K	1 kΩ
02K2	2.2 kΩ
04K7	4.7 kΩ
010K	10 kΩ
047K	47 kΩ
100K	100 kΩ
470K	470 kΩ

Other values on request

Bezel colour	
1	black (standard)
9	satin chrome (standard)
4	gloss black chrome (upon request)

Main features

- Fully integrated potentiometer in monolithic body
- Protection degrees IP67 and IP69K
- Rotary potentiometer with Cermet technology
- 3-pole PULSH-IN type spring-connection system
- Numerous resistance values

Markings and quality marks:

EAC approval: RU C-IT ДМ94.B.01024

In conformity with standards:
IEC 60947-1, IEC 60947-5-1, IEC 60204-1, EN 60947-1, EN 60947-5-1, EN 60204-1, UL 508, CSA 22-2 no.14.

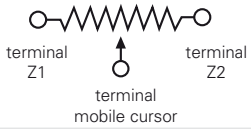
Technical data

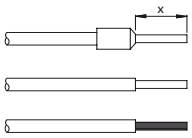
General data

Protection degree:	IP67 acc. to IEC 60529 IP69K acc. to ISO 20653
Ambient temperature:	-40°C … +80°C
Mechanical endurance:	50,000 operating cycles
Mechanical travel:	250°
Tightening torque of the fixing ring:	2 … 2.5 Nm
Utilization requirements:	see page 124

Electrical data

Rated insulation voltage (Ui):	300 Vac
Resistive material:	Cermet
Operation:	linear
Resistance tolerance:	±10 %
Cross-section of rigid wires and flexible wires with wire-end sleeve:	min. 1 x 0.34 mm² (1 x AWG 24) max. 1 x 1.5 mm² (1 x AWG 16)
Wire cross-section with pre-insulated wire-end sleeve:	min. 1 x 0.34 mm² (1 x AWG 24) max. 1 x 0.75 mm² (1 x AWG 18)
Connection system:	PUSH-IN spring type
Cable stripping length (x):	min.: 8 mm max.: 12 mm





Resistance	Rated operating voltage Ue max	Rated operating current Ie max	Power (70 °C) max.
1 kΩ	31 V	31 mA	1 W
2.2 kΩ	46 V	21 mA	1 W
4.7 kΩ	63 V	14 mA	1 W
10 kΩ	100 V	10 mA	1 W
47 kΩ	217 V	4.6 mA	1 W
100 kΩ	316 V	3 mA	1 W
470 kΩ	350 V	0.75 mA	0.25 W

Other resistance values are available. Please contact our sales office.

In conformity with the requirements of:
Low Voltage Directive 2006/95/EC, Machinery Directive 2006/42/EC and EMC Directive 2004/108/EC.

General data

Integrated potentiometer

Thanks to its monolithic shape, it has been possible to integrate all the mechanical and electrical components needed for its end use inside the E6 series potentiometer body; it is therefore not necessary to assemble any other parts, such as knobs or trimmers, all that is required is to insert the circuit wires into the incorporated terminal board. Precise choices made in terms of design and materials have lead to the creation of an object featuring remarkable mechanical resistance when in operation and maximum protection preventing any liquids or foreign bodies from penetrating inside.
Moreover, the resistive element used is made of a composite ceramic and metal material, produced with the Cermet technology, which ensures remarkable stability and constancy in the resistance value set.

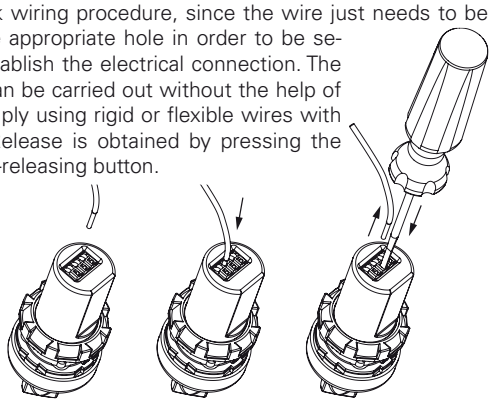
Protection degrees IP67 and IP69K

IP69K
IP67

These devices are designed to be used in the toughest environmental conditions and they pass the IP67 immersion test acc. to IEC 60529. They can therefore be used in all environments where the maximum protection of the housing is required. Special measures also allow devices to be used even in machines which are subjected to washing with high pressure warm water jets. In fact these devices pass the IP69K test according to ISO 20653, using jets of water to 100 atmospheres at a temperature of 80°C.

PUSH-IN spring type connection

The potentiometer is provided with a 3-pole terminal board with a PUSH-IN type spring-operated connection. This technology allows a very handy quick wiring procedure, since the wire just needs to be inserted into the appropriate hole in order to be secured and to establish the electrical connection. The said operation can be carried out without the help of any tool, but simply using rigid or flexible wires with a crimped tip. Release is obtained by pressing the appropriate wire-releasing button.



Dimensions

All measures in the drawings are in mm