

TB-106: Sealing Options for BEPC Encoders

British Encoder Products Company uses the international standard IP Code, International Protection Marking, IEC standard 60529¹, for specifying the sealing qualities of our units. The chart below explains what the different numerical designations define. Note that the designations build on the previous ones; that is, an IP69K rating means that unit is also protected against everything that a unit rated IP68, IP67, IP66, etc., is protected against.

BEPC encoders offer the following sealing designations on our encoders:

IP50: Unit is not entirely protected from ingress of dust, but not enough dust can enter the unit to interfere with the unit's function. Unit is not protected from water/moisture.

All IP designations of IP60 or higher are protected completely against dust ingress; i.e., "dust-tight".

IP64: Dust-tight. Protected against water sprays from all directions, with limited ingress permitted.

IP65: Dust-tight. Protected against low-pressure jets of water in all directions, with limited ingress permitted.

IP66: Dust-tight. Protected against strong-pressure jets of water in all directions, with limited ingress permitted.

IP67: Dust-tight. Protected against water immersion between 15 cm and 1 m for a duration of 30 minutes.

IP69K: Dust-tight. Protected against continuous immersion in water, and Protected against close-range, high pressure, high temperature spray downs.

For help determining which IP rating is right for the encoder in your application, contact our Technical Services Department at sales@encoder.co.uk or call us at +44(0)1978 262100

¹ See <http://www.iec.ch/> for testing standards.

1st Digit	Protection Against Solids	2nd Digit	Protection Against Liquids
0	No Protection	0	No Protection
1	Protected against solid objects greater than 50 mm	1	Protected against vertically falling drops of water
2	Protected against solid objects greater than 12 mm	2	Protected against direct sprays of water up to 15° from the vertical
3	Protected against solid objects greater than 2.5 mm	3	Protected against direct sprays of water up to 60° from the vertical
4	Protected against solid objects greater than 1 mm	4	Protected against water sprays from all directions - limited ingress permitted
5	Dust protected	5	Protected against low pressure jets of water from all directions - limited ingress permitted
6	Dust tight	6	Protected against strong pressure jets of water from all directions - limited ingress permitted
		7	Protected against water immersion between 15 cm and 1 m for a duration of 30 minutes
		8	Protected against continuous immersion in water
		9K	Protected against close-range, high pressure, high temperature spray downs