Contact brushes in a fixed position slide along the surface of the rotating conductive rings

Binary Code

111
110
101
100
011
010
001
000

Gray Code

100
101
111
110
010
011
001
000
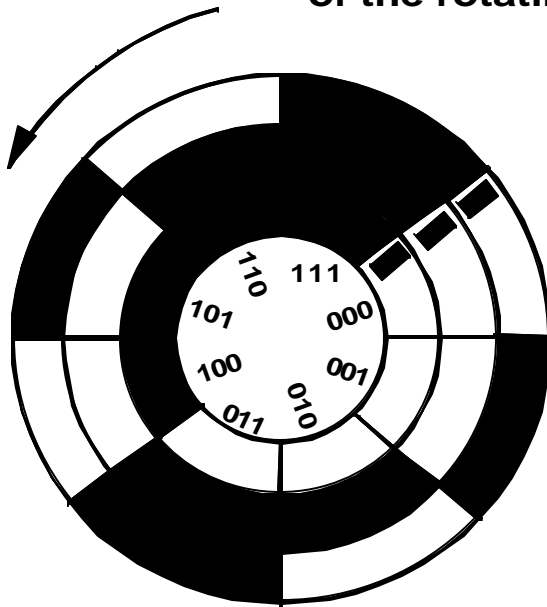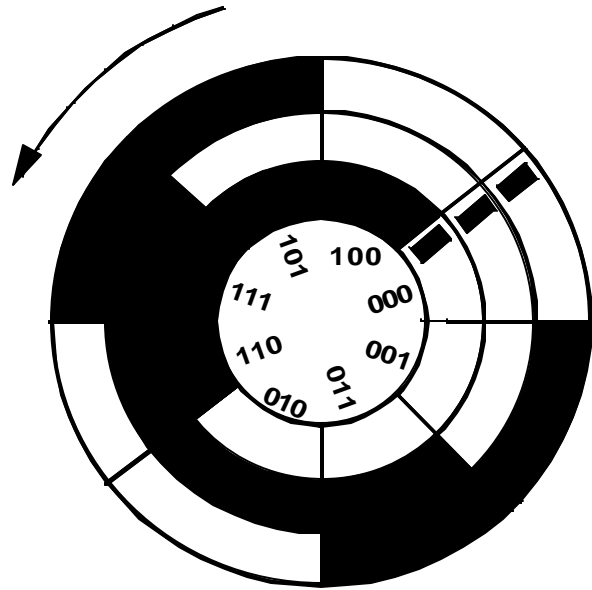
Simplified Gray Code error illustration in shaft position encoders