

Code Switch ECBS



Multi purpose electronic code switch

- Binary or Gray-Code also complementary.
- Flexible due to many detent angles: T 10 (36°); T 12 (36°); T 16 (22,5°) T 20 (18°); T 24 (15°); T 32 (11,25°)
- Version V with adjustable stops.
- Many connecting versions

1.0 Construction

1.1	Number of wafers max.	3 wafers
1.2	Switching combinations per wafer	Code 51, BCD · Code 52, BCD-Complement
	Design D, detent angle 36°	Code 41, Binary · Code 42, Binary-Complement
	Design E, Detent angle 30°	Code 76, Gray · Code 77, Gray-Complement
		Code 41, Binary · Code 42, Binary-Complement
	Design H, Detent angle 22,5°	Code 76, Gray · Code 77, Gray-Complement
		Code 41, Binary · Code 42, Binary-Complement
	Design N, Detent angle 18°	Code 41, Binary · Code 42, Binary-Complement
	Design P, Detent angle 15°	Code 76, Gray · Code 77, Gray-Complement
		Code 41, Binary · Code 42, Binary-Complement
	Design S, Detent angle 11,25°	Code 41, Binary · Code 42, Binary-Complement
1.3	Contacts	plug-in connection (standard) ribbon cable
1.4	Mounting	Central mounting

2.0 Electrical Data

2.1	Supply voltage	4,75...5,5 VDC
2.2	Current consumption	type. 25 mA
2.3	Output current max.	10 mA
2.4	Life expectancy	> 1 x 10 ⁶
2.5	Inverse polarity protection	up to 12 V
2.6	Outputs	„low“ < 0,6 V; „high“ > Vcc – 1 V

3.0 Mechanical Data

3.1	Stops	Fixed or without stop
		Stop adjustable: special version V
3.2	Operating torque acc. to design	≥ 9 Ncm
3.3	Stop strength	≥ 150 Ncm
3.4	Fastening torque max.	≥ 500 Ncm
3.5	Temperature range	–25...+85 °C
3.6	Storage temperature	–40...+135 °C

4.0 Other Data

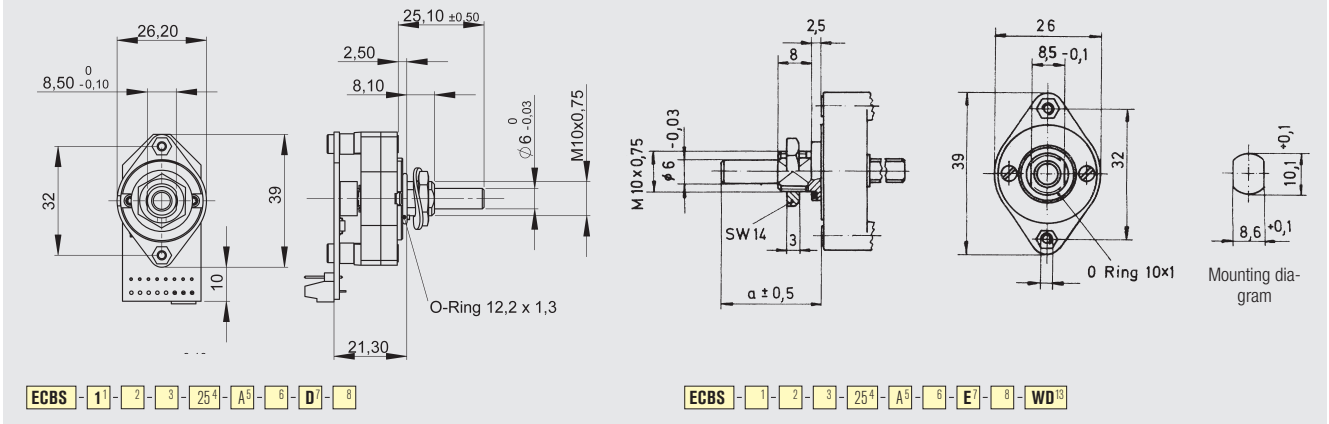
4.1	Vibration resistance acc. to IEC 68-2-6	1g, 2-200 Hz, 10 Kt/min, 133 min
4.2	Shock resistance acc. to IEC 28-2-27	10g, 11 ms

Ordering Codes

Designation of type	ECBS
1. Number of wafers	1
2. Code	41, 42, 76, 77
3. Distribution over 360°	10, 12, 16, 20, 24 oder 32
4. Shaft length	mm
5. Shaft design	A = standard, special versions page 6
6. Switching limit	00 = without stop (switching limit to XX positions)
7. Contact versions	D, E
8. Stop	V = stop adjustable
13. Watertight	WD

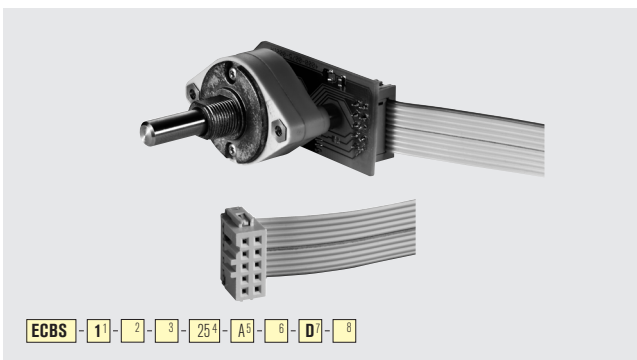
The bold-typed data in the yellow order blocks remain unchanged.
Normal-typed data match the drawings and can be modified according to your wishes.
Blanks need to be completed according to the ordering details on the previous page.

Maßzeichnungen · Dimensions in mm

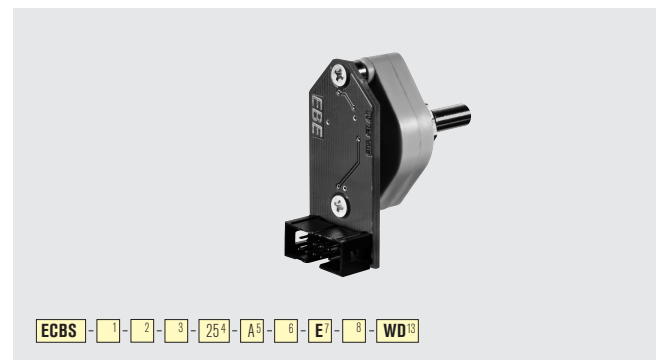


ECBS-D · Standard

ECBS-E · Watertight Version



ECBS-D · Connector for flat ribbon cable



ECBS-E · Screw-on terminals

Code Switch Table



Binary code 41

	C connected to	1	2	4	8	16
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						

T=12

	C connected to	1	2	4	8	16
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						

T=16

	C connected to	1	2	4	8	16
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						

T=20

	C connected to	1	2	4	8	16
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						

T=24

	C connected to	1	2	4	8	16
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						

T=32

BCD-Code 51

	C connected to	1	2	4	8	16
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						

T=10

For T=10,
T=12 and
T=16
connection 1
remains free.

Binary code 42

Complement

	C connected to	1	2	4	8	16
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						

T=12

Complement

	C connected to	1	2	4	8	16
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						

T=16

Complement

	C connected to	1	2	4	8	16
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						

T=20

Complement

BCD-Code 52

Complement

	C connected to	1	2	4	8	16
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						

T=10

Complement

Bei T=10,
T=12 and
T=16
connection 1
remains free.

Graycode 76

	C connected to	1	2	4	8	16
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						

T=12

	C connected to	1	2	4	8	16
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						

T=16

For T=12
and T=16
connection 1
remains free.

T=10 and
T=20
on request.

	C connected to	1	2	4	8	16
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						

T=24

	C connected to	1	2	4	8	16
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						

T=32

Graycode 77

Complement

	C connected to	1	2	4	8	16
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						

T=12

Complement

	C connected to	1	2	4	8	16
0		●	●	●	●	●
1				●		
2					●	
3		●			●	●
4		●				●
5						
6				●		●
7		●	●			●
8			●	●		
9				●		
10						
11		●				
12		●			●	
13						●
14				●	●	
15		●	●	●		