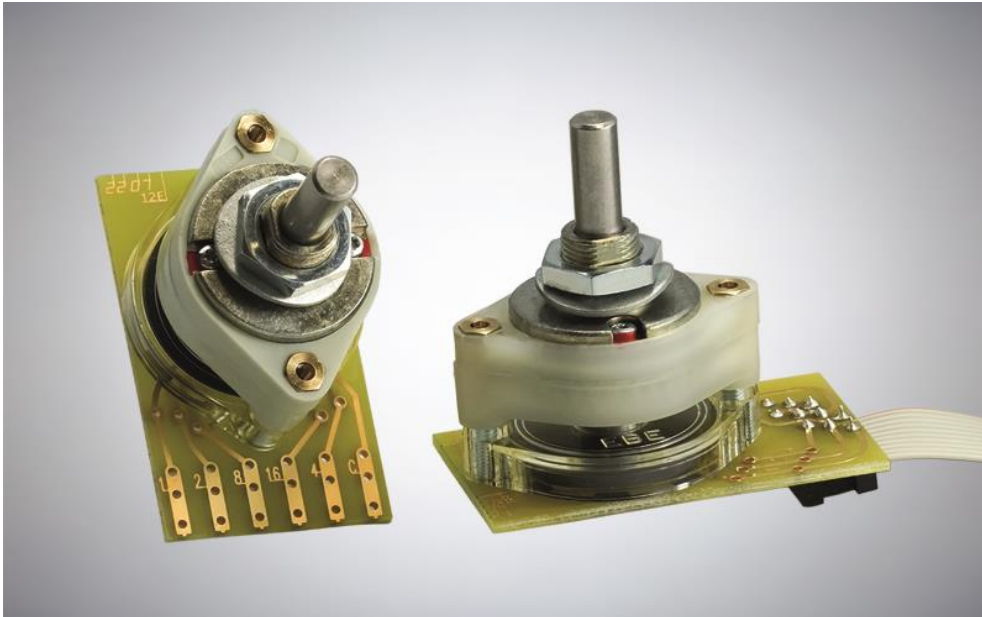


CBS – Switch with additional BS level 2108515



DESCRIPTION

- Can be used in many applications for electronic coded switches
- High rotational life
- Contact release without touching
- Up to three wafers stackable
- Up to 32 positions per wafer possible
- Various and special custom codings available
- Additional BS switch levels can be added

TECHNICAL DATA

CONSTRUCTION AND MECHANICAL DATA , TYPICAL VALUES

NUMBER OF WAFERS	max. 3 wafers
SWITCHING COMBINATIONS PER WAFER DESIGN D, DETENT ANGLE 36° (T10)	code 41, binary; code 42, binary-complement code 51,BCD; code 52, BCD-complement
DESIGN E, DETENT ANGLE 30° (T12)	code 41, binary; code 42, binary-complement code 76, gray; code 77, gray-complement
DESIGN H, DETENT ANGLE 22,5° (T16)	code 41, binary; code 42, binary-complement code 75, gray; code 77, gray-complement
DESIGN N, DETENT ANGLE 18° (T20)	code 41, binary; code 42, binary-complement
DESIGN P, DETENT ANGLE 15° (T24)	code 41, binary; code 42, binary-complement code 76, gray; code 77, gray-complement
DESIGN S, DETENT ANGLE 11,25° (T32)	code 41, binary; code 42, binary-complement
CONTACTS	Solderpads or plug connectors (standard)
MOUNTING	central mounting or two-point mounting
STOPS	fixed or without stop stop adjustable: special version "V"
OPERATION TORQUE	≥ 9 Ncm (customizable, dep. on design)
STOP FORCE	≥ 150 Ncm
FASTENING TORQUE	≤ 200 Ncm
PROTECTION	sealed wafers against dust

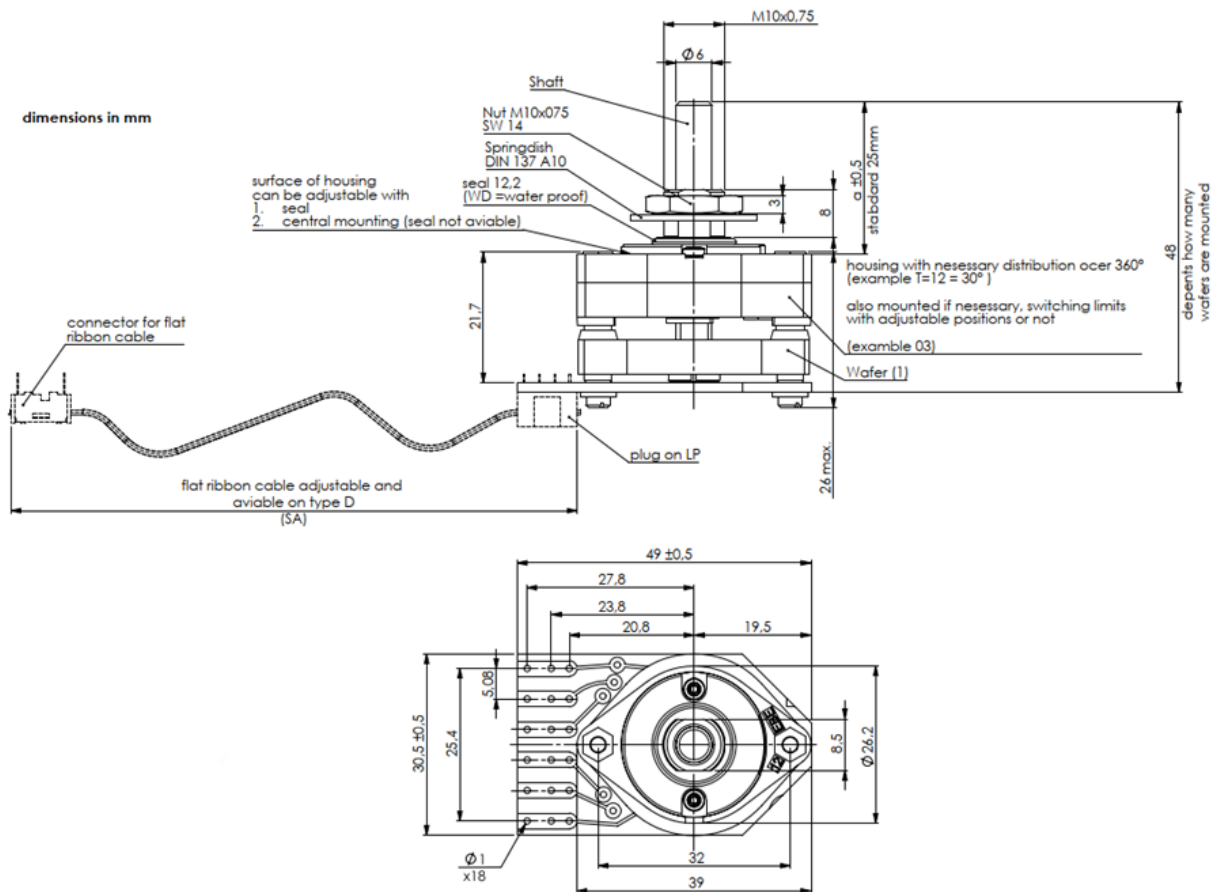
ELECTRICAL DATA, TYPICAL VALUES

SWITCHING POWER	max. 3 VA / W
SWITCHING VOLTAGE	max. 60 V DC/AC
SWITCHING CURRENT	max. 0,1 A DC/AC
REST CURRENT AT $\Delta\mu$ 20°C	max. 1 A DC/AC
TEST VOLTAGE	between contacts 500 VAC/50 Hz contact / ground 700 VAC/50 Hz
LIFE EXPECTANCY WITHOUT ELECTRICAL LOAD	\geq 25 000 cycles
CONTACT RESISTANCE INITIAL VALUE	< 110 m Ω
CONTACT MATERIAL	Au over Ni barrier layer
INSULATION RESISTANCE	5x10 ¹⁰ Ω
INSULATING MATERIAL WAFER ROTOR	epoxide glass laminate, EP polycarbonate, PC
SOLDERING TIME AND TEMPERATURE MAX.	5 s at max. 260°C 3 s at max. 350°C, manual soldering

ENVIRONMENTAL CONDITIONS

OPERATING TEMPERATURE	-25°C - +85°C
STORAGE TEMPERATURE	-40°C - +100°C°
MAX. HEIGHT	0 - 2000m

DIMENSIONS



Order codes

DEFINITION ORDER CODES CBS

DESIGNATION OF TYPE	CBS
1. NUMBER OF WAFERS	1, 2, 3
2. CODE	41, 42, 51, 52, 76, 77
3. DISTRIBUTION OVER 360°	T = 10, 12, 16, 20, 24 or 32
4. ROTARY LIMITATION	oA = without limitation mT = with limiter
5. SHAFT LENGTH	a = in mm (standard typ. 21,5 mm)
6. SHAFT DESIGN (SEE TABLE BELOW)	A, B, C, D, E, F, M, N, S
7. SWITCHING LIMIT	XX stop on position; 00=without stop
8. CONTACT VERSIONS (SEE TABLE BELOW)	A, B, C, D, E, F, G
9. STOP	V = stop adjustable
10. WATER PROOF	WD

SHAFT DESIGNS

STANDARD SHAFT ROUND	A
SHAFT WITH TENSION BUSH AND THREAD	B
HOLLOW SHAFT	C
SHAFT WITH SCREW DRIVER SLOT	D
SHAFT WITH FLAT SIDE	E
SHAFT WITH 2 FLAT SIDES	M
SHAFT WITH ROTARY KNOB	N
OTHER SHAFT FORMS, DEVIATE FROM A TO N	S

CONTACT VERSIONS

STANDARD, COMBINED SOLDER OR PLUG CONNECTION	A
PINS FOR PC BOARD	B
PINS FOR MINI WIRE WRAP	C
CONNECTOR FOR FLAT-RIBBON CABLE	D
SCREW ON TERMINALS	E
DOUBLE FLAT-PIN CONNECTORS	F
LONG VERTICAL PINS FOR PC BOARDS	G

EXAMPLE: CBS 2/1x41b T=12 oA a=25B-02-B-WD-(SA)

CBS 2(wafer)/1(layer)x41(code)b(binary), T=12(distribution over 360°), a=25(shaft length)B(shape), 02(switching limits), -B(contact version), -WD(water proof), -SA(special customized)

REVISION

REVISION	DATE	DESCRIPTION
1.2	06.09.2024	Updated drawing and values
1.1	29.07.2024	Data Sheet update
1.0	26.09.2022	Initial Data Sheet

DISCLAIMER

The information contained in this document is for general guidance only. The user is responsible for determining the suitability of the technical information referred to herein for his application. On delivery of the component, EBE is only obliged to implement those properties set out and agreed upon in this technical data sheet. Further properties are not included. No guarantee is given. The component has been designed for installation in our customer's products. Manufacturer of the resulting product and consequent liability according to the Product Liability Act lies with the customer.