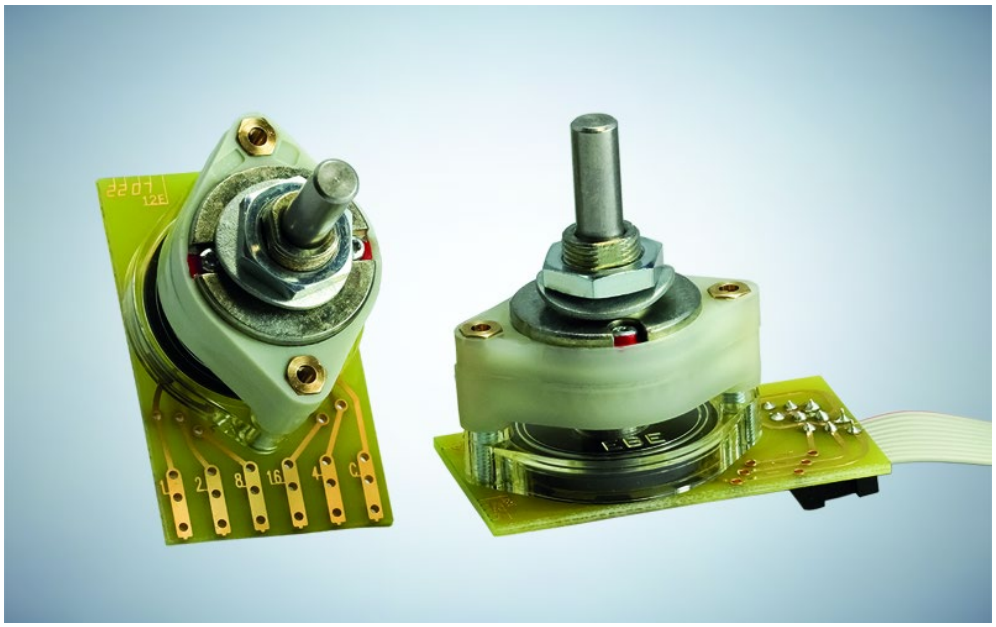
CBS – HMI-Switches



DESCRIPTION

Multi-purpose code switch
with 1 to 3 wafers.

- Binary or Gray code also complementary.
- Flexible due to many detent angles:
  T10 (36°); T12 (30°); T16 (22,5°)
  T20 (18°); T24 (15°); T32 (11,25°)
- Available with integrated diodes.
- Two-point mounting available.
- Version V with adjustable stops.
- Various types of connection:
  – 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.

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TECHNICAL DATA

CONSTRUCTION AND MECHANICAL DATA , TYPICAL VALUES (T=20°C)

NUMBER OF WAFERS MAX.	3 wafers
SWITCHING COMBINATIONS PER WAFER	Code-table on page 4
DESIGN D (36°)	Codes 51, 52, 41, 42
DESIGN E (30°)	Codes 76, 77, 41, 42
DESIGN H (22.5°)	Codes 75, 77, 41, 42
DESIGN N (18°)	Codes 41, 42
DESIGN P (15°)	Codes 76, 77, 41, 42
DESIGN S (11.25°)	Codes 41, 42
CONTACTS	Solder and plug connectors
MOUNTING	Central mounting
STOPS	Fixed or adjustable (V)
STOP STRENGTH	>= 150 Ncm
DUST PROTECTION	Sealed wafers
CONTACT MATERIAL	Au over Ni barrier layer
INSULATING MATERIAL WAFER	Epoxide glass laminate EP
INSULATING MATERIAL ROTOR	Polycarbonate PC
SOLDERING TIME AND TEMPERATURE MAX.	5s 260°C, 3s 350°C, manual soldering

ELECTRICAL DATA, TYPICAL VALUES (T=20°C)

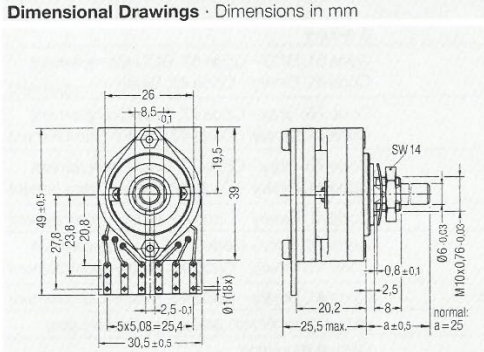
SWITCHING POWER MAX.	3 VA/W
SWITCHING CURRENT MAX.	0.1 A
REST CURRENT MAX. T=20°C	1 A
CONTACT RESISTANCE INITIAL VALUE	<110 mΩ
INSULATION RESISTANCE	5x10^10 Ω

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DIMENSIONS

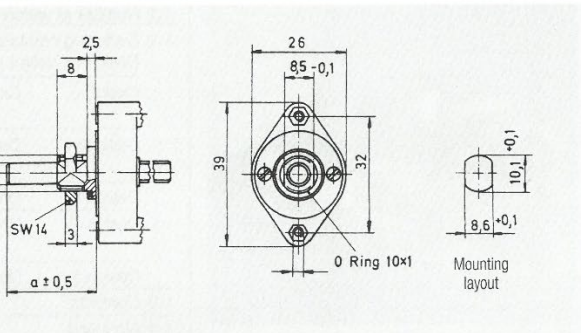
The bold-typed data in the yellow order blocks remain unchanged.
Normal-typed data match the drawings and can be modified according to your wishes.
Blanks need to be completed according to the ordering details on the previous page.

Dimensional Drawings · Dimensions in mm



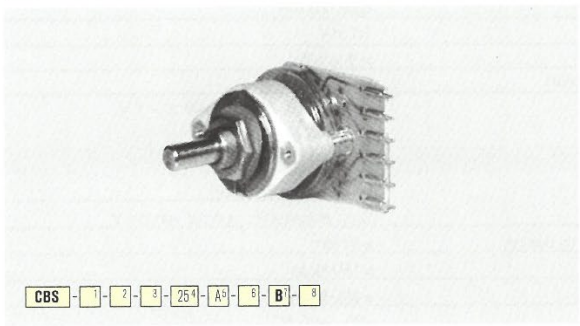
CBS - 1 - 2 - 3 - 25⁴ - A⁵ - 6 - A⁷ - 8

CBS-A · Standard



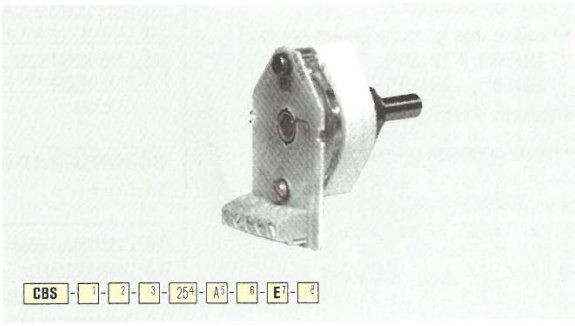
CBS - 1 - 2 - 3 - 25⁴ - A⁵ - 6 - 7 - 8 - WD¹³

CBS · Watertight version



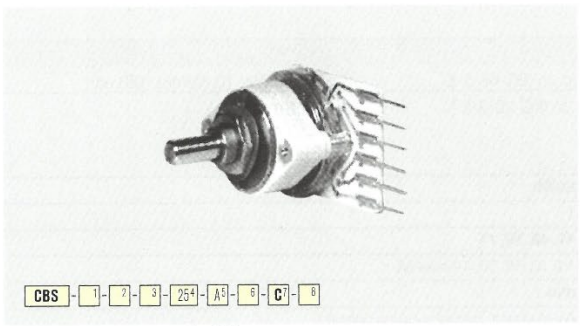
CBS - 1 - 2 - 3 - 25⁴ - A⁵ - 6 - B⁷ - 8

CBS-B · Pins for PC board



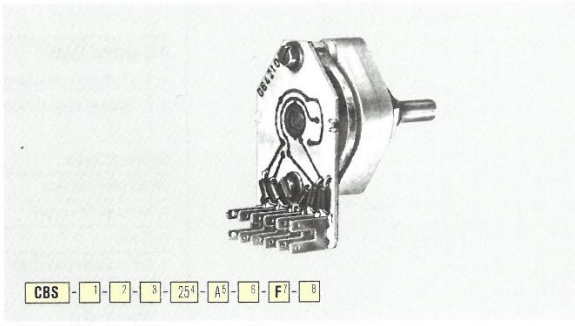
CBS - 1 - 2 - 3 - 25⁴ - A⁵ - 6 - E⁷ - 8

CBS-E · Screw-on terminals



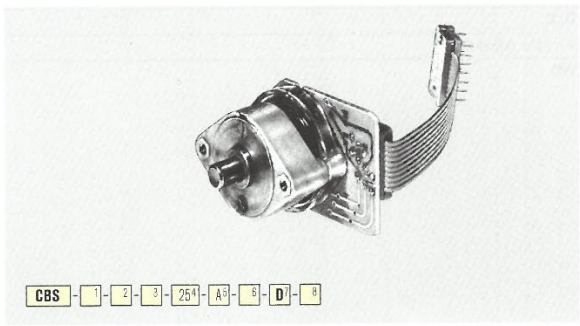
CBS - 1 - 2 - 3 - 25⁴ - A⁵ - 6 - C⁷ - 8

CBS-C · Pins for Mini Wire Wrap



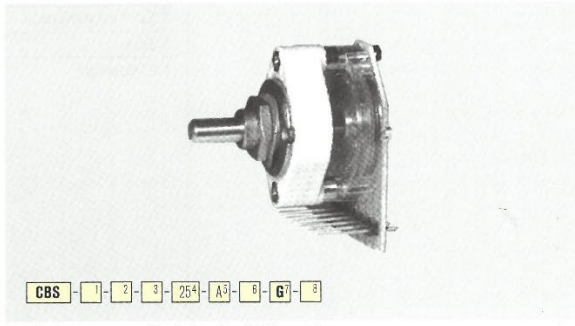
CBS - 1 - 2 - 3 - 25⁴ - A⁵ - 6 - F⁷ - 8

CBS-F · Double flat-pin connectors



CBS - 1 - 2 - 3 - 25⁴ - A⁵ - 6 - D⁷ - 8

CBS-D · Connector for flat-ribbon cable

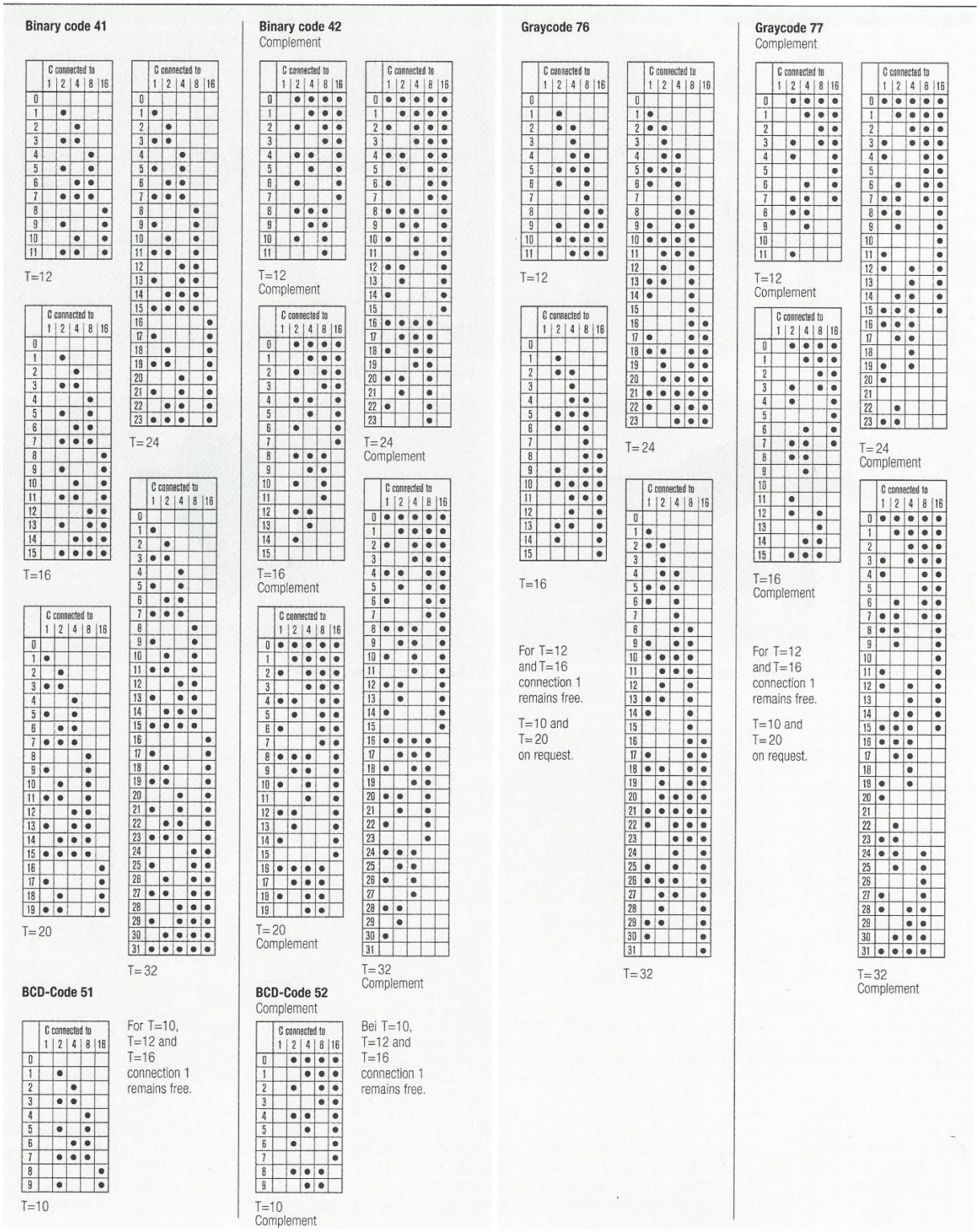


CBS - 1 - 2 - 3 - 25⁴ - A⁵ - 6 - G⁷ - 8

CBS-G · Long vertical pins for PC boards

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Sielminger Straße 63
70771 Leinfelden-Echterdingen

Coding



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Sielminger Straße 63
70771 Leinfelden-Echterdingen

Order codes

DEFINITION ORDER CODES CBS

DESIGNATION OF TYPE	CBS
1. **NUMBER OF WAFERS**	1
2. **CODES**	41, 42, 51, 52, 76, 77
3. **DISTRIBUTION**	10,12,16,20,24,32
4. **SWITCHING LIMIT**	00
5. **CONTACTS**	A-G
6. **STOP**	V
7. **WATERTIGHT**	WD
8. **NUMBER OF WAFERS**	1
9. **CODES**	41, 42, 51, 52, 76, 77
10. **DISTRIBUTION**	10,12,16,20,24,32

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Sielminger Straße 63
70771 Leinfelden-Echterdingen

SAFETY AND WARNING NOTES

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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 herein for his application. On delivery of the component, EBE is only obliged to implement those properties set out and agreed upon in this document. 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. Warranty is limited to below mentioned extent.

The component is not intended for installation in end products for medical, life-saving, or safety-related applications. The use of the component is also not permitted and expressly prohibited in vehicles of any kind (including trailers and watercraft), as a component in aerospace products (including radio transmitter for aerospace purposes), or in offshore structures.

User assumes all responsibility and liability to determine whether the component is subject to any applicable international, federal, state, or local laws and regulations related to user's handling and use of the component and, if applicable, user assumes all responsibility and liability for compliance in all respects with such laws and regulations.

Disclaimer for improper use

The manufacturer accepts no liability for damage resulting from improper, inappropriate, or non-compliant use of the component. Any liability for direct or indirect damage, consequential damage or loss resulting from improper use is excluded. The Customer (user) is obliged to use the component exclusively in accordance with the instructions and information given in this document.

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REVISION

REVISION	DATE	DESCRIPTION
1.0	29.06.2026	Initial Data Sheet Short Version

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Sielminger Straße 63
70771 Leinfelden-Echterdingen