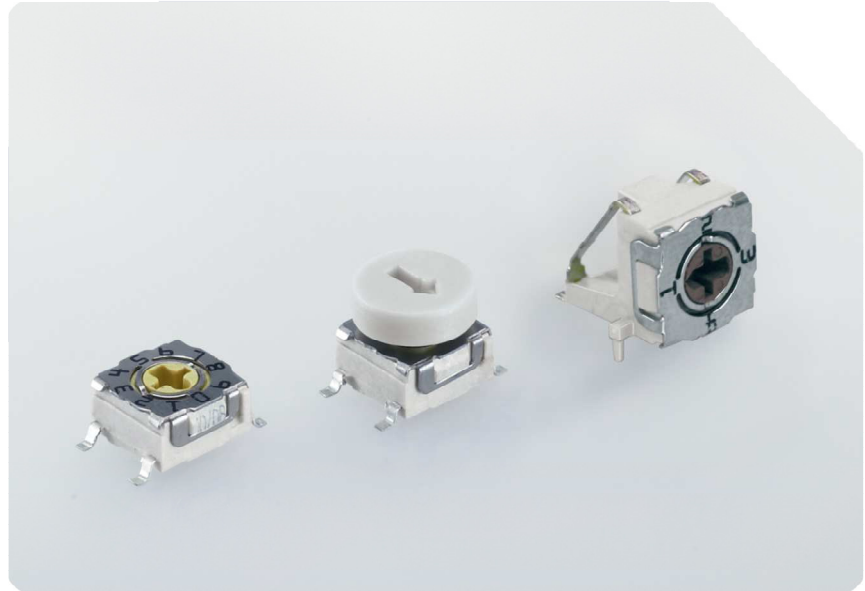


## CODIERSCHALTER | CODE SWITCH



### 528

#### Ausführung

- Miniatur-Drehcodierschalter mit BCD-, Hexa-, Gray- oder Komplementärkode
- 8, 10 oder 16 Schaltstellungen
- Horizontale oder vertikale Betätigung
- Optional: Verschiedene Achs- und Knopfvarianten

#### Anschlüsse

SMD- oder THT-Ausführung

#### Abmessungen

Vertikal: 7,2 x 7,1 x 3,7 mm  
Horizontal: 7,2 x 7,1 x 8 mm

### 528

#### Construction

- Miniature rotary code switch with BCD hex, gray or complementary code
- 8, 10 or 16 positions
- Operated horizontally or vertically
- Optional: multiple shaft and button designs

#### Pining

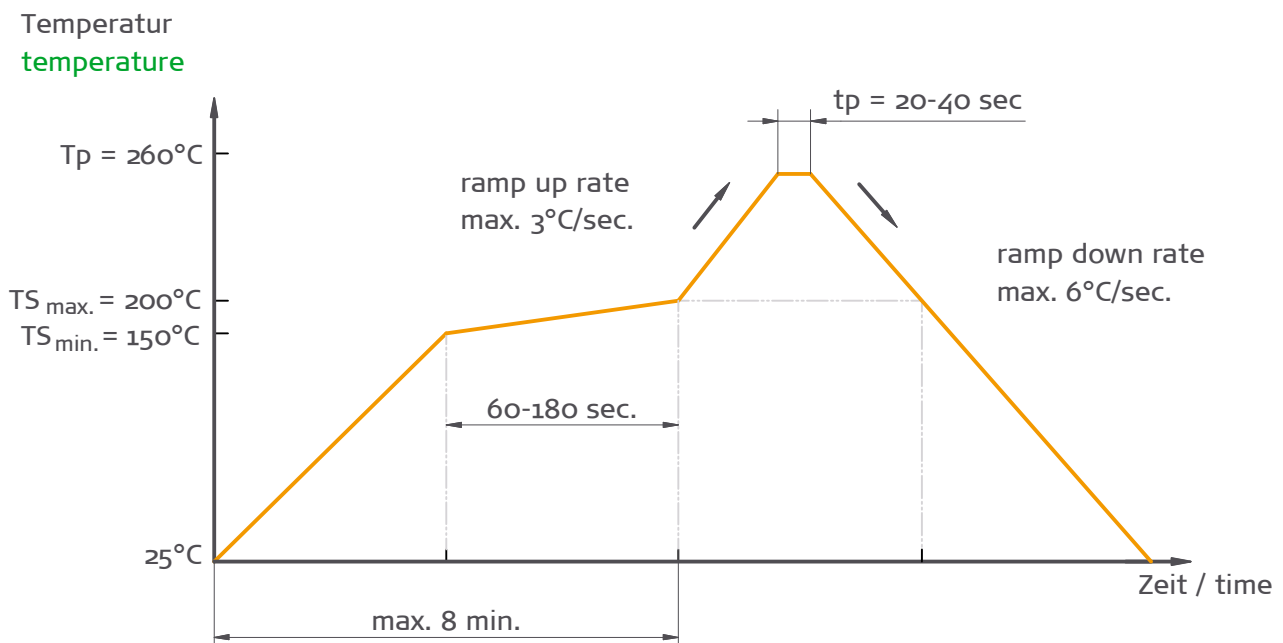
SMD or THT design

#### Dimensions

Vertical: 7.2 x 7.1 x 3.7 mm  
Horizontal: 7.2 x 7.1 x 8 mm

<b>Ausführung Construction</b>	Schaltweise Anschlussmaße Abmessungen	Brake before make (bbm) See drawings See drawings	Function Pining Outline Dimensions
<b>Isolierwerkstoffe Insulation Material</b>	Gehäuse Kontaktträger Betätiger	Stainless steel Thermoplastic-UL-94-Vo Thermoplastic-UL-94-Vo	Housing Contact Body Actuator
<b>Kontaktwerkstoffe Contact Material</b>	Festkontakte Schaltkontakte Lötanschlüsse	CuSn6 gal. Ni Au1 CuBe gal. Ni1 Au1 CuSn6 gal. Ni1 Sn4	Fixed Contacts Sliding Contacts Pins
<b>Elektrische Daten Electrical Data</b>	Schaltspannung Schaltstrom Übergangswiderstand Isolierwiderstand	max. 30 V max. 100 mA < 100 mOhm > 100 MOhm	Switching Voltage Switching Current Contact Resistance Insulation Resistance
<b>Mechanische Daten Mechanical Data</b>	Lebensdauer Betriebstemperatur Lagertemperatur Betätigungsmoment Dichtheit nach DIN 40050	see code chart -50 °C to +125 °C -55 °C to +135 °C 1,5 Ncm ±0,3 Ncm IP 67	Life Expectancy Operation Temperature Storage Temperature Operating Force Process seal acc. DIN 40050
<b>Lötbedingungen / Art Soldering Time / Conditions</b>	SMD THT	acc. to IPC/JEDEC J-STD -020D Tab. 4-2 (max. peak temperature +260°) JESD22-B1.06D/single wave	SMD THT

### Empfohlene Reflow Temperaturkurve recommended reflow temperature profile





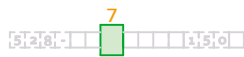
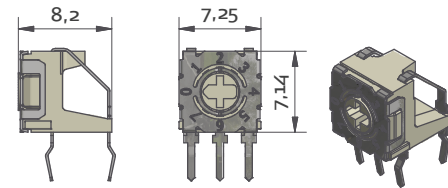
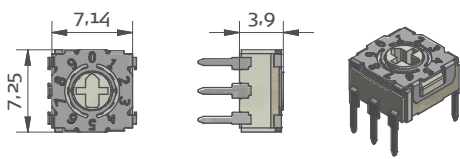
Art der Verzinnung  
type of plating

- 0** Bleifrei (Standard) / lead free (standard)
- 2** Whiskerfreie Ausführung / whiskerfree version



Schalterausführung  
switch version

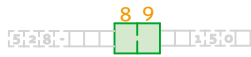
- 1** vertikale Betätigung (Standard) / vertical version (standard)
- 2** horizontale Betätigung / horizontal version



Kodierung | code

Kodierung code	Farbe colour	Positionen positions	Wertigkeit terminal number (output)	Schaltpositionen actuator position																Lebensdauer life expectancy	
				0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F		
<b>1</b> BCD	gelb yellow	10	Wertigkeit terminal number (output)	1															1200 Umdrehungen 1200 operations  12000 Schritte 12000 steps		
				2																	
				4																	
				8																	
<b>2</b> BCD complement	rot red	10	Wertigkeit terminal number (output)	1															1200 Umdrehungen 1200 operations  12000 Schritte 12000 steps		
				2																	
				4																	
				8																	
<b>3</b> Hexadecimal	blau blue	16	Wertigkeit terminal number (output)	1															400 Umdrehungen 400 operations  6400 Schritte 6400 steps		
				2																	
				4																	
				8																	
<b>4</b> Hexadecimal complement	grün green	16	Wertigkeit terminal number (output)	1															400 Umdrehungen 400 operations  6400 Schritte 6400 steps		
				2																	
				4																	
				8																	
<b>5</b> Graycode	beige beige	10	Wertigkeit terminal number (output)	1															1200 Umdrehungen 1200 operations  12000 Schritte 12000 steps		
				2																	
				4																	
				8																	
<b>8</b> BCD	schwarz black	8	Wertigkeit terminal number (output)	1															1200 Umdrehungen 1200 operations  9600 Schritte 9600 steps		
				2																	
				4																	
				8																	
<b>B</b> Decimal	braun brown	4	Wertigkeit terminal number (output)	1															1200 Umdrehungen 1200 operations  4800 Schritte 4800 steps		
				2																	
				4																	
				8																	
<b>G</b> Graycode	hell beige pale beige	16	Wertigkeit terminal number (output)	1															400 Umdrehungen 400 operations  6400 Schritte 6400 steps		
				2																	
				4																	
				8																	

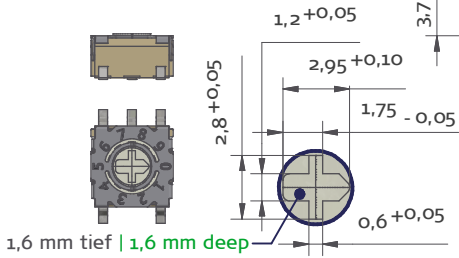
mit C verbunden  
in connect with C



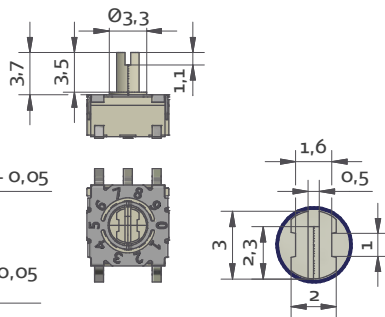
Achs oder Knopf Ausführung  
shaft or knob version

01

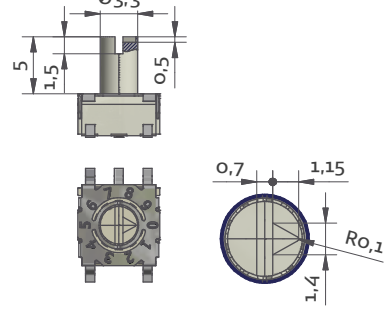
ohne Achse / Knopf  
without knob / shaft



04



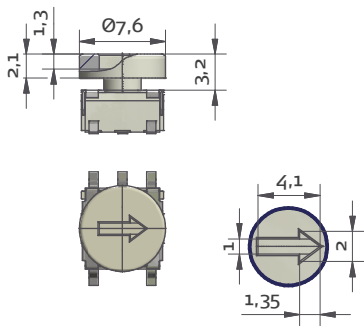
05



Bei diesen Varianten im Feld 'Achsfarbe' eine 'o' eintragen / By this variants enter a 'o' in the field 'shaft color'

07

Knopf mit Schlitz unbedruckt  
knob with slot without printing



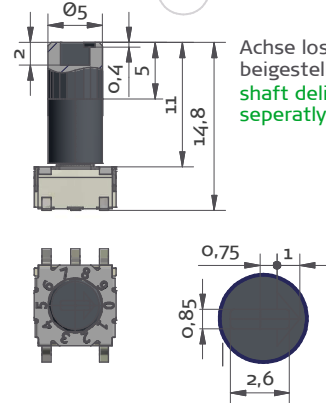
08

Knopf mit Schlitz bedruckt  
knob with slot with printing



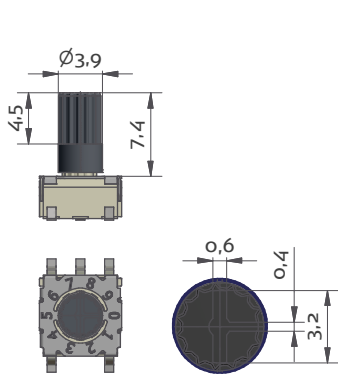
10

Achse lose beigestellt  
shaft delivered separately

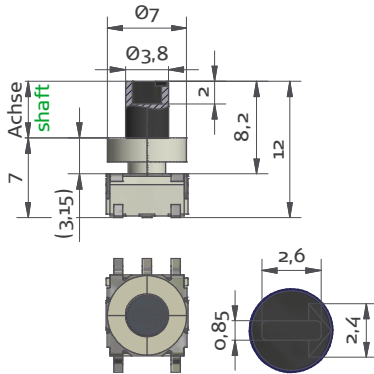


Bei diesen Varianten im Feld 'Achsfarbe' eine 'o' eintragen / By this variants enter a 'o' in the field 'shaft color'

11

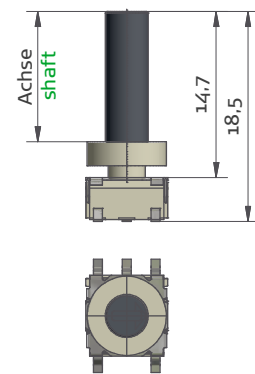


12



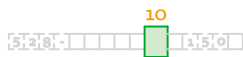
Achse lose beigestellt  
shaft delivered separately

18



Achse lose beigestellt  
shaft delivered separately

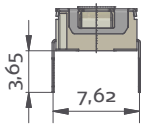
Achsausführung 11, 12 und 18 sind nicht in horizontaler Schalterausführung lieferbar.  
Shafts no. 11, 12 and 18 are not available in horizontal switch version.



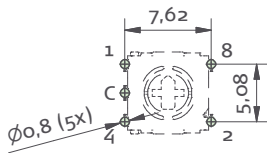
Anschlußart (Schalterausführung 1)  
terminal design (switch version 1)

1

THT Pin  
THT pin

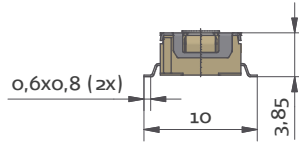


Leiterplattenlochbild (Bauteilseite)  
drilling matrix (component side)

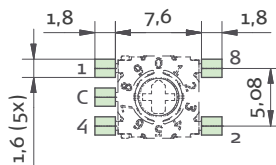


2

SMD: Gull-wing  
SMD: Gull-wing



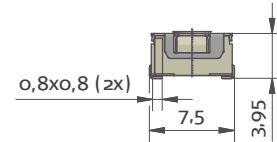
Löt-Pad-Anordnung  
SMD solering pad



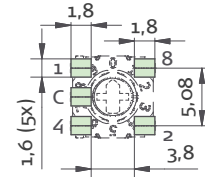
Koplanarität der Pins 0,1mm  
| Coplanarity of the Pins 0,1mm

3

SMD: J-hook  
SMD: J-hook



Löt-Pad-Anordnung  
SMD solering pad

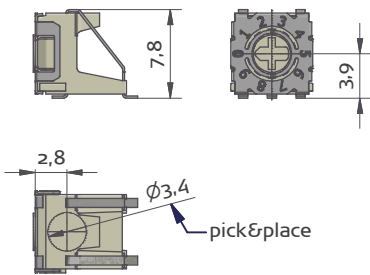


Koplanarität der Pins 0,1mm  
| Coplanarity of the Pins 0,1mm

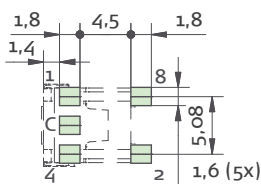
Anschlußart (Schalterausführung 2)  
terminal design (switch version 2)

2

SMD: Gull-wing  
SMD: Gull-wing



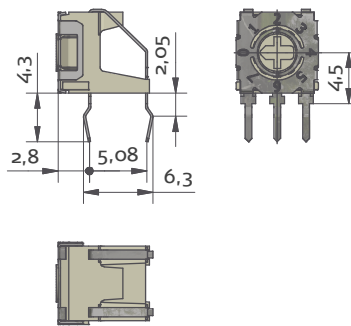
Löt-Pad-Anordnung  
SMD soldering pad



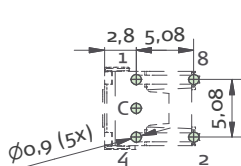
Koplanarität der Pins 0,1mm  
| Coplanarity of the Pins 0,1mm

4

THT: Snap-in  
THT: Snap-in



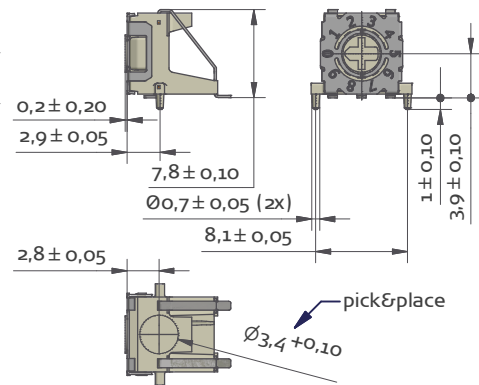
Leiterplattenlochbild (Bauteilseite)  
drilling matrix (component side)



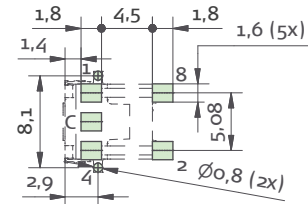
Koplanarität der Pins 0,1mm  
| Coplanarity of the Pins 0,1mm

5

SMD: Gull-wing mit Zapfen  
SMD: Gull-wing with pivots



Löt-Pad-Anordnung  
SMD soldering pad



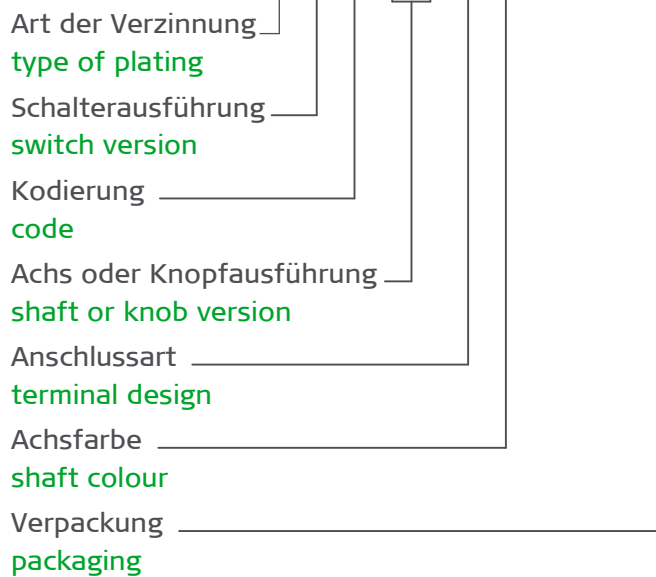
Koplanarität der Pins 0,1mm  
| Coplanarity of the Pins 0,1mm



### Achs- und Knopffarbe shaft- and knob color

- 0** ohne Achse / without shaft
- 1** schwarz / black
- 6** grau / grey

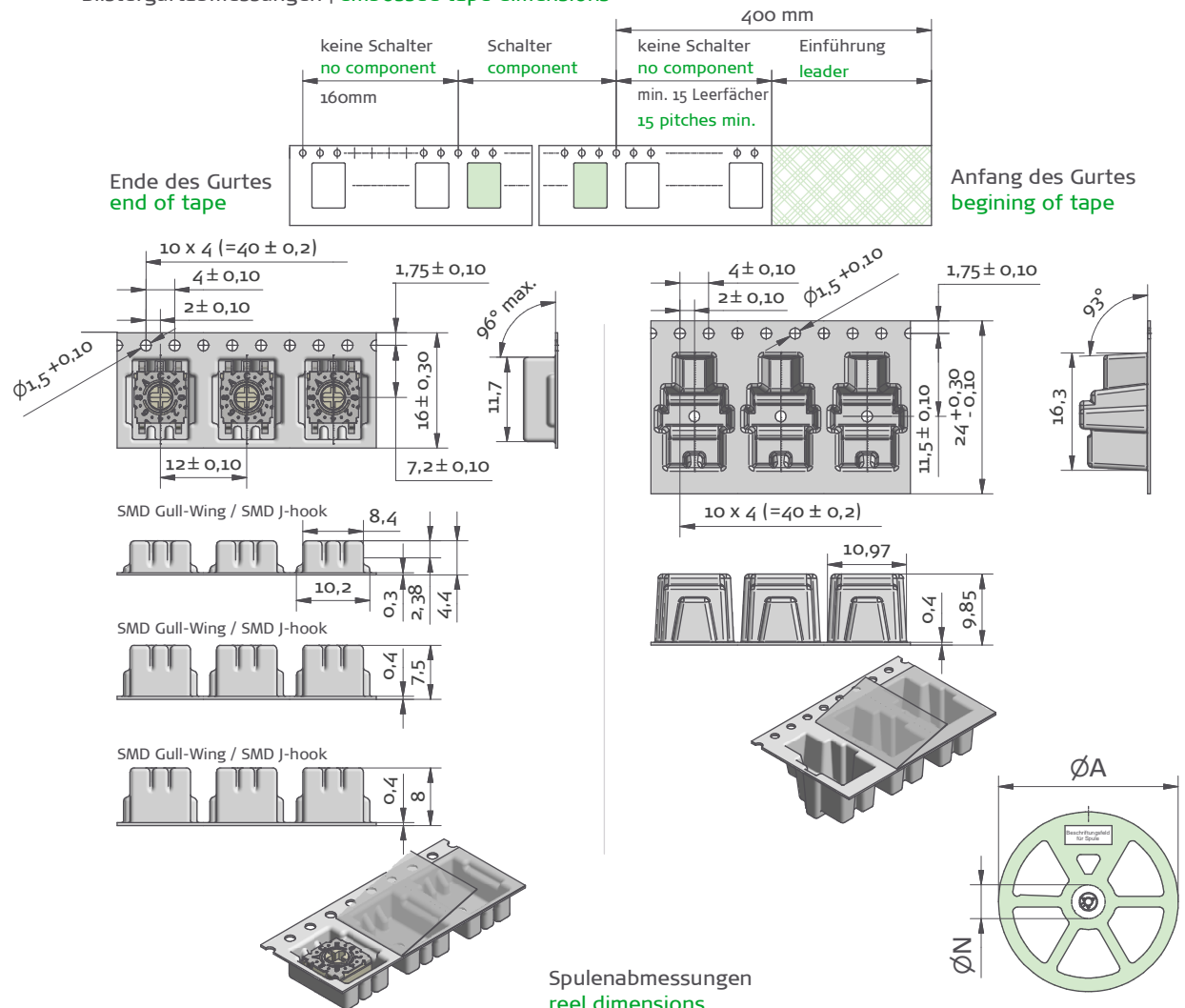
### Bestell-Schlüssel | ordering code



<b>Werkstoffe Materials</b>	Blistergurt	PET or PS	Embossed tape
	Abdeckband	PET	Reel
<b>Abdeckband Top Cover Tape</b>	Zugmoment	Min 10 Nm	Embossed tape pull strength
	Abzugswinkel	165°C - 180°C	Peel of angle
	Abzugsgeschwindigkeit	300 mm / min.	Peel speed
	Abzugskraft	0.1 - 0.7 Nm	Peel force

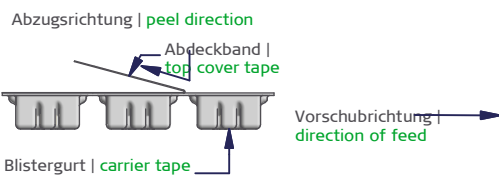
15 Verpackung packaging

2 Gurt | embossed tape  
Blistergurtabmessungen | embossed tape dimensions



Spulenabmessungen  
reel dimensions

		max. Stückzahl number of pieces	Maß "A" dimension "A"	Maß "N" dimension "N"
verti- cal	ohne Knopf 01 without knob 01	1400	330 mm	60 mm
	mit Knopf 07 / 08 with knob 07 / 08	800	330 mm	60 mm
	mit Achse 04 with shaft 04	700	330 mm	60 mm
hori- zontal	ohne Knopf 01 without knob 01	600	330 mm	60 mm





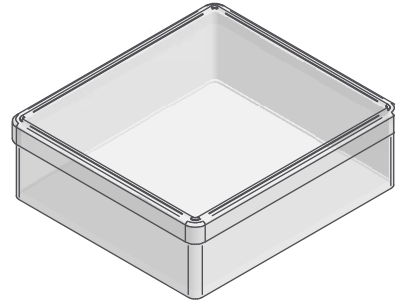
35 Verpackung  
packaging

1

Rechteckdose / square box

Abmessungen | dimensions:  
max. Stückzahl | max. number of pieces:

111 x 101 x 36mm  
250 Stück | pieces





## Aufschlüsselung Datecode classification datecode

