

# Data Sheet

## Thumbwheel Switch, Type T

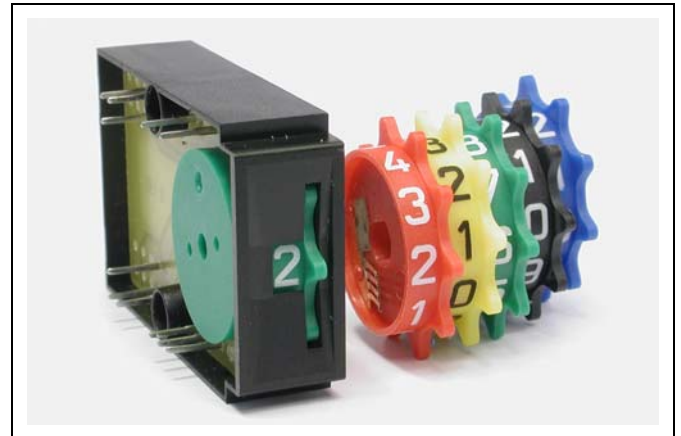
The thumbwheel switch T is 10.16 mm wide per decade and can be complemented with LED digital displays.

All other technical data is identical with that of types TC, TD and TT.

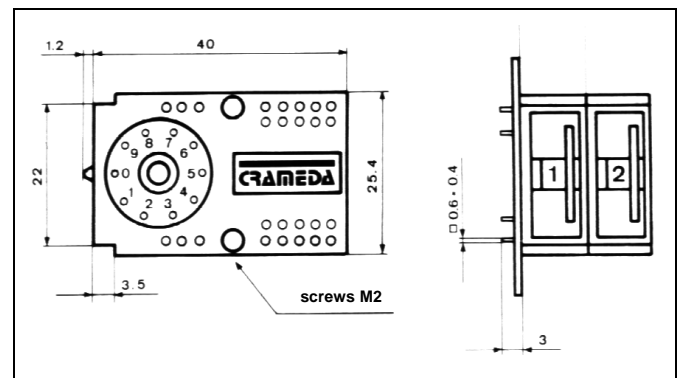
The installation depth is 40 mm.

### Technical Data

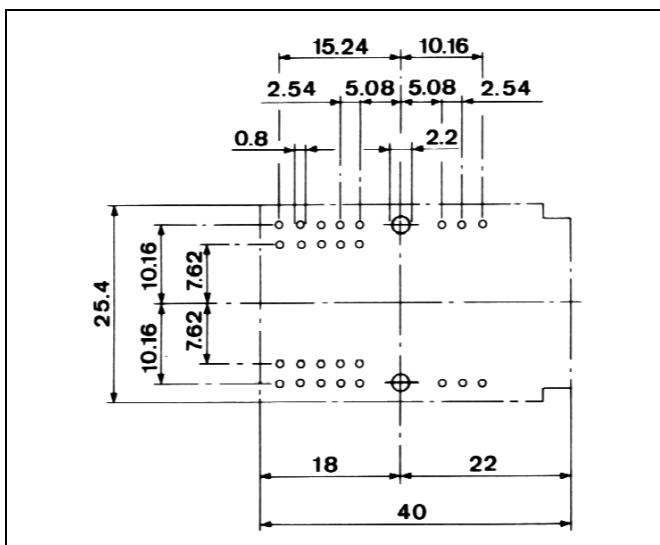
Rated current	≤ 0.1 A suitable for dry switching
Max. voltage	≤ 50 V=
Insulation resistance	≥ 10 <sup>4</sup> MΩ
Contact resistance	≤ 100 mΩ
Test voltage U <sub>P</sub> contact/contact	0.5 kV ~, 1 min.
Service life at 50 V/75 mA	> 10 <sup>5</sup> switch operations
Permissible ambient temperature δ <sub>U</sub>	-25° . . . +70°C
IEC-climatic category 68-1	25/070/21
Materials: Housing	Noryl
Thumbwheel	Polyamide
PC substrate	Epoxy
PC traces	Copper ≥ 1.8 µm hard gold plated over 2 µm nickel
Contact spring	Bronze CuSn6, contact AuAgNi 71/26/3 rolled to a thickness of 10 µm
Soldering	Hand soldering (max. 5 s) max. 340°C Suitable for mechanical soldering (using a protection foil where necessary)



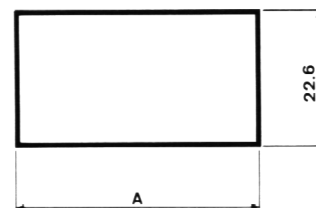
### Dimensions



### Hole pattern

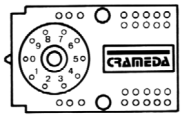
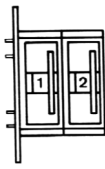


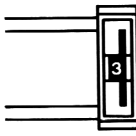
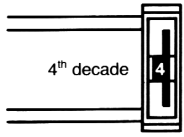
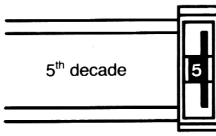


### Panel Cut-out



No. of decades	Dim. A
1 decade	10.5 mm
2 decades	20.7 mm
3 decades	30.9 mm
4 decades	41.1 mm
5 decades	51.2 mm

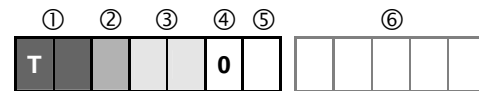
### Order Number Configuration

Type ①		Position of decade ②		Switching function ③		
  <b>width 10.16 mm</b>	<b>T</b>	 1 <sup>st</sup> decade	1	BCD-Code, 10 pos.	0-9	01
		 2 <sup>nd</sup> decade	2	BCD compl., 10 pos.	0-9	02
		 3 <sup>rd</sup> decade	3	Dual-Code, 16 pos.	0-15	05
		 4 <sup>th</sup> decade	4	Hexadecimal, 16 pos.	0-9 A-F	06
		 5 <sup>th</sup> decade	5	BCD-Code, 11 pos.	0-10	08
				Decimal, 10 pos.	0-9	10
				Decimal, 11 pos.	0-10	11
				Decimal, 16 pos.	0-15	16
				BCD + 2 Inputs, 10 pos.	0-9	20
				Changer single pole	+/-	25

Truth tables and connections see pages 3 and 4

④ Colour of housing	black	0
⑤ Colour of selector disk	black	0
	red	2
	yellow	4
	green	5
	blue	6
	grey	8
⑥ Optional	End Stop	A
	Special Execution	S

#### Ordering Key

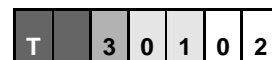
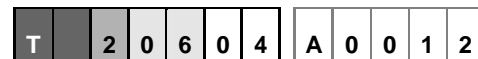


- ① Type
- ② Position of decade
- ③ Switching function
- ④ Housing black
- ⑤ Colour of selector disk
- ⑥ Optional

#### Order number (example)

##### T-switchblock with 3 decades

- T 10604**      1st decade hexadecimal, housing black, selector disk yellow
- T 20604 A0012**      2nd decade hexadecimal, housing black, selector disk yellow with stops, active switching between 0 and 12
- T 30102**      3rd decade BCD code, housing black, selector disk red



Specifications are subject to change without notice.

### Truth tables and connections

**Code 01** BCD positive 10 pos.

	1	2	4	8	C
0					
1	■				
2		■			
3	■	■			
4			■		
5	■		■		
6		■	■		
7	■	■	■		
8				■	
9	■			■	

**Code 05 06** Hexadecimal/Dualcode

	1	2	4	8	C
0	0				
1	1				
2	2				
3	3				
4	4				
5	5				
6	6				
7	7				
8	8				
9	9				
A	10				
B	11				
C	12				
D	13				
E	14				
F	15				

**Code 08** BCD positive 11 pos.

	1	2	4	8	C
0					
1	■				
2		■			
3	■	■			
4			■		
5	■		■		
6		■	■		
7	■	■	■		
8				■	
9	■			■	
10		■		■	

**1<sup>st</sup> decade**

**3<sup>rd</sup> decade**

**2<sup>nd</sup> decade**

**4<sup>th</sup> decade**

**5<sup>th</sup> decade**

**Code 02** BCD compl. 10 pos.

	1	2	4	8	C
0					
1	■				
2		■			
3	■	■			
4			■		
5	■		■		
6		■	■		
7	■	■	■		
8				■	
9	■			■	

**1<sup>st</sup> decade**

**3<sup>rd</sup> decade**

**2<sup>nd</sup> decade**

**4<sup>th</sup> decade**

**Code 10** Decimal 10 pos.

	0	1	2	3	4	5	6	7	8	9	C
0	■										
1		■									
2			■								
3				■							
4					■						
5						■					
6							■				
7								■			
8									■		
9										■	

**Code 11** Decimal 11 pos.

	0	1	2	3	4	5	6	7	8	9	10	C
0	■											
1		■										
2			■									
3				■								
4					■							
5						■						
6							■					
7								■				
8									■			
9										■		
10											■	

**1<sup>st</sup> decade**

**2<sup>nd</sup> decade**

## Truth tables and connections

**Code 16** Decimal 0 - 15

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

**Code 25** Changer

	+	-														A			
+																			
-																			
+																			
-																			
+																			
-																			
+																			
-																			

**Code 20** BCD + 2 Inputs 10 pos.

	1	2	4	8											C	C		
0																		
1																		
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		

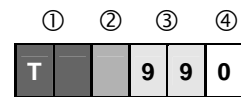
  

## Spacing modules for T-switchblock assemblies

### Blank Spacing Module

The blank spacing module has the same dimensions as the corresponding T-switches. It can be mounted in any position within the switchblock. The blank spacing module allows to subdivide a switch assembly or to give it a symmetrical appearance.

### Ordering key



- ① Type
- ② Position of decade
- ③ Code, always 99
- ④ Housing black