

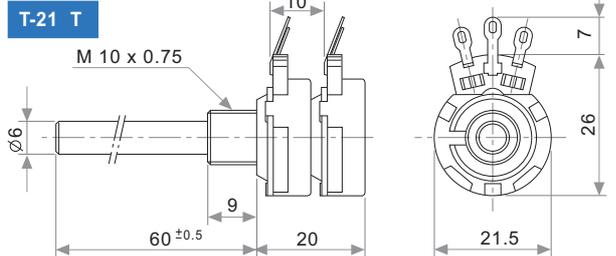
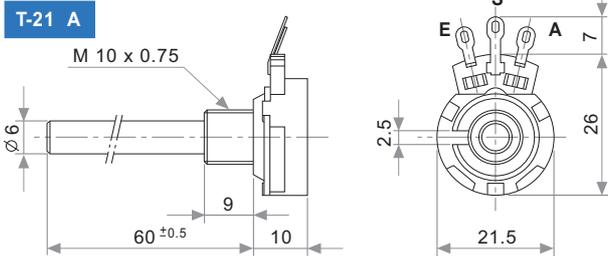


T-21 A C + DRAWING NUMBER (Max. 16 digits)

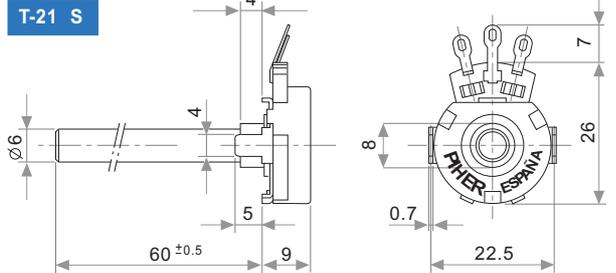
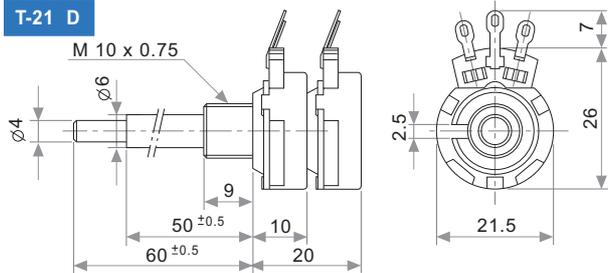
This way of ordering should be used for options which are not included in the "How to order" standard and optional extras.

Shaft length ..... 0 standard  
 Detents ..... Without  
 Stereo matching ..... Only for model "T" and upon request  
 Switch ..... No switch  
 Nut & washer ..... Without nut and washer

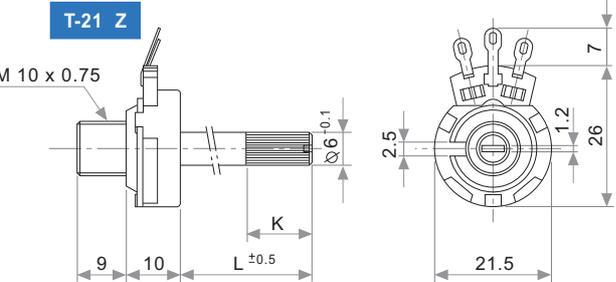
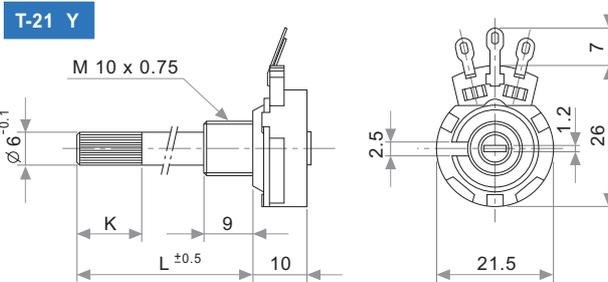
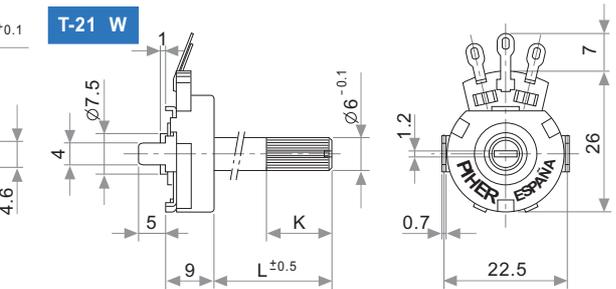
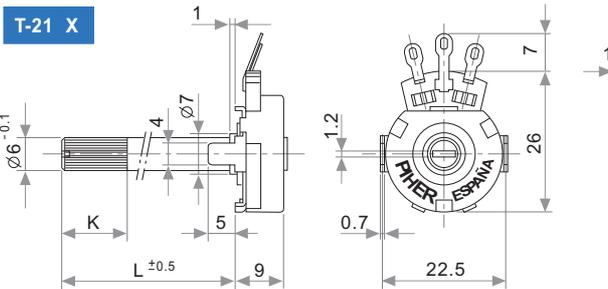
MODELS WITH METALIC SHAFTS



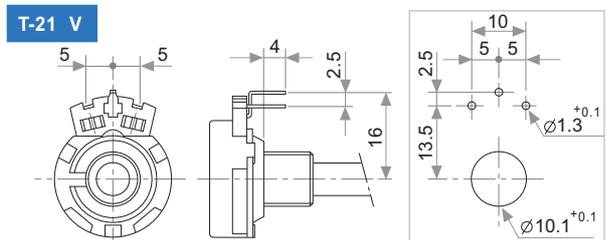
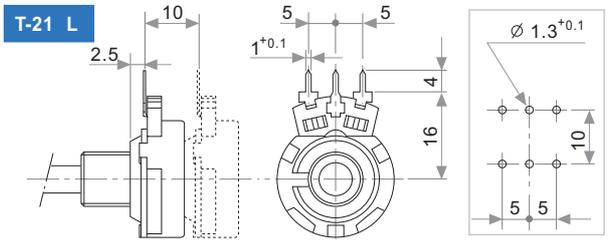
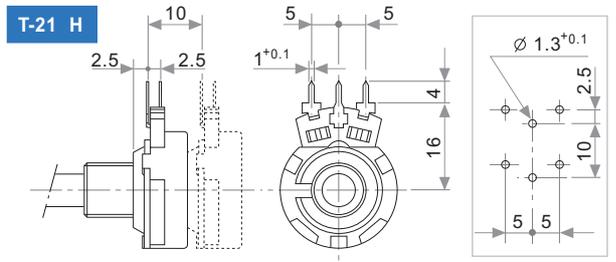
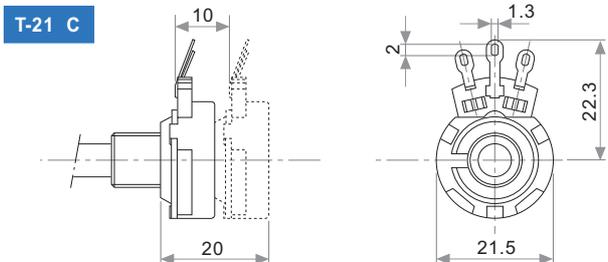
A = Initial  
 S = Wiper  
 E = Final



MODELS WITH PLASTIC SHAFTS



TERMINALS



## PLASTIC SHAFTS

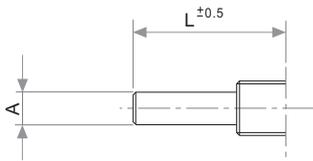
T-21 X/Y without Switch			
Knurling length	T-21 X	T-21 Y	CODE
K = 0	L = 2	/	P01
K = 6	L = 10	/	P02
K = 12	L = 16	L = 15	P03
K = 12	L = 26	L = 25	P04
K = 12	L = 36	L = 35	P05
K = 35	L = 46	L = 45	P06

T-21Y w/Sw F01		
Knurling length	T-21 Y	CODE
K = 5	L = 16	P10
K = 14.6	L = 25	P11
K = 35	L = 46	P12

T-21 W/Z without Switch			
Knurling length	T-21 W	T-21 Z	CODE
K = 12	L = 26	L = 26	P07
K = 12	L = 36	L = 36	P08
K = 12	L = 46	L = 46	P09

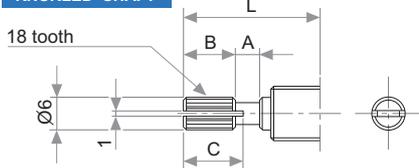
## METALIC SHAFTS

### PLAIN SHAFT



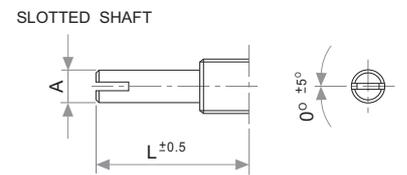
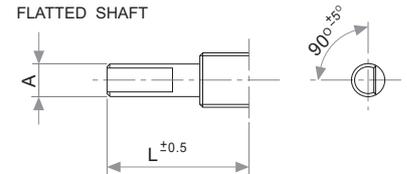
A	L	CODE
4	40	M04
6	60	M06
6.35	60	M07
4/6	50/60	M08

### KNURLED SHAFT



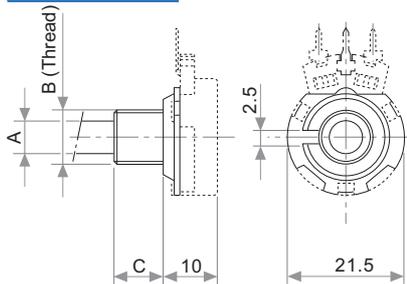
L	A	B	C	CODE
15	2	6	7	M11
20	2	10	11	M12
25	4	12	14	M13
30	4	12	14	M14
35	4	12	14	M15
40	4	12	14	M16

### UNDER DRAWING



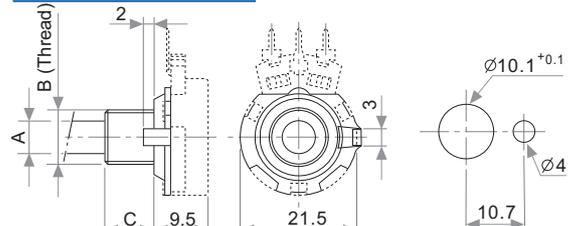
## BUSHINGS

### STANDARD



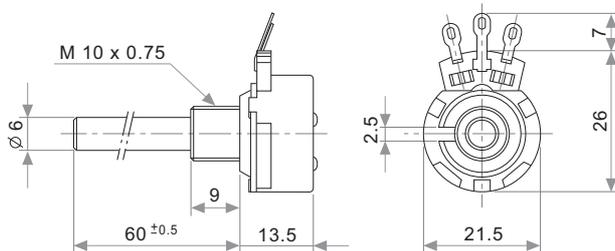
CODE	A	B	C
07	6	M10 x 0.75	9
08	6	M10 x 0.75	12
09	6	M10 x 0.75	19
14	6.35	M10 x 0.75	9

### NON ROTARY PAWL

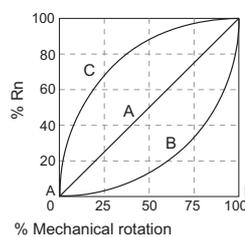


CODE	A	B	C
11	6	3/8" x 32 h.	9
12	6	3/8" x 32 h.	12
13	6.35	3/8" x 32 h.	9

## DETENTS

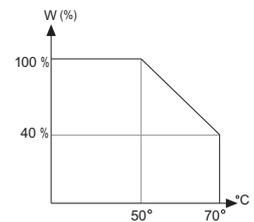


## TAPERS



A: Lin.  
B: Log.  
C: Alog.

## POWER RATING CURVE



## TESTS

## TYPICAL VARIATIONS

ELECTRICAL LIFE	1.000 h. 50°C; 0.25 W	±5 %
MECHANICAL LIFE* :	25.000 (10-15 CPM)	±3 % (Rn < 1 M)
TEMPERATURE COEFFICIENT	-25°C; +70°C	±300 ppm (Rn < 100 K)
THERMAL CYCLING	16 h. @ 85°C; 2h. @ -25°C	±2.5 %
DAMP HEAT	500 h. 40°C 95% HR	±5 %
VIBRATION (for each plane X,Y,Z)	2 h. @ 10 Hz - 55 Hz.	±2 %

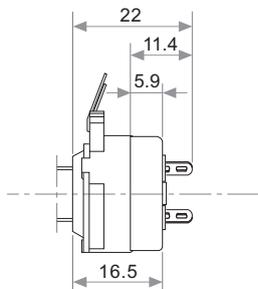
NOTE: Out of range values may not comply these results.

(\*) only applicable to values ≥ 1K. For lower values please consult.

## PACKAGING

Boxes of 150 / 200 pieces (160 x 110 x 85 mm.)

## SWITCH F1



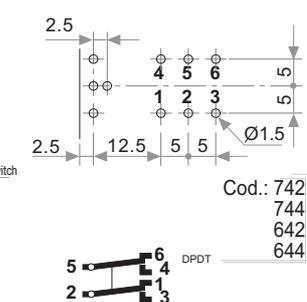
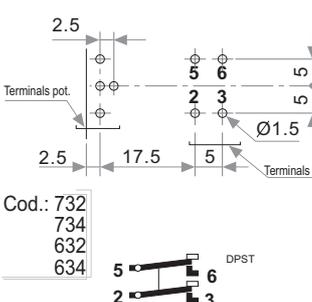
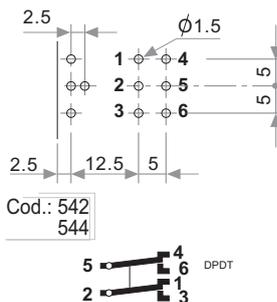
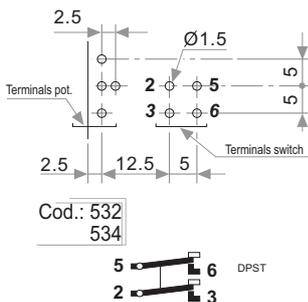
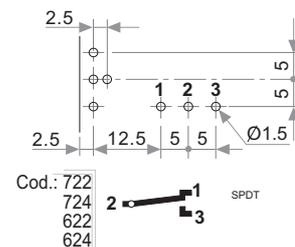
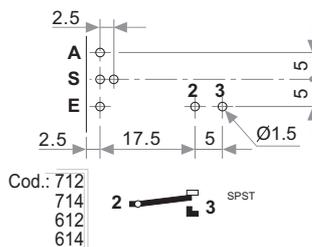
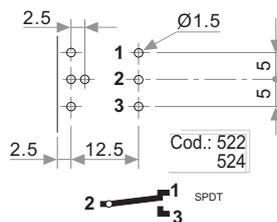
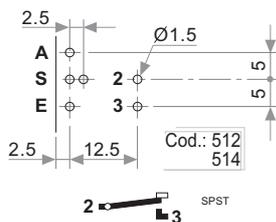
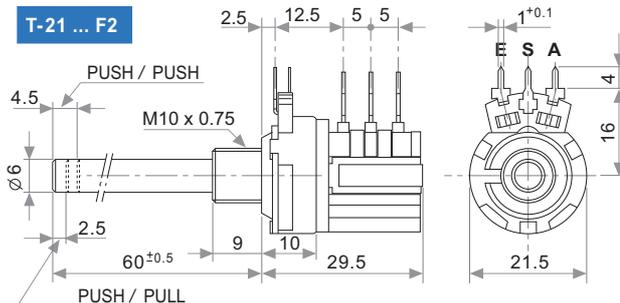
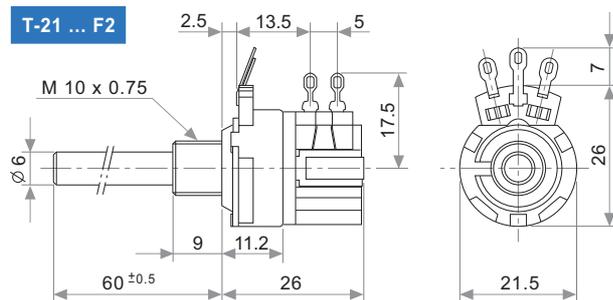
MECHANICAL & ELECTRICAL SPECIFICATIONS	F 1
OPERATING ANGLE	50° ±5°
OPERATING TORQUE	3-7 Ncm (4.2-9.8 in-oz)
MAXIMUM AXIAL CHARGE	80 N; 17 pounds
NOMINAL CURRENT	1A; 250 VAC
CONTACT RESISTANCE	≤ 25mΩ
TEST VOLTAGE (DIELECTRIC STRENGTH)	2000 V (50 Hz)

## SWITCH F2

ELECTRICAL SPECIFICATIONS	F 2
SWITCH RATING	2 or 4A; 250 VAC
CONTACT RESISTANCE	≤ 25 mΩ
DIELECTRIC STRENGTH	2000 V
INSULATION RESISTANCE	100 MΩ
MECHANICAL SPECIFICATIONS	F 2
OPERATING ANGLE (ROTARY)	35° ± 5°
PUSH / PUSH OPERATING TRAVEL	4 mm.
PUSH / PULL OPERATING TRAVEL	2.5 mm.
OPERATING TORQUE (ROTARY)	2 to 9 Ncm. (2.8 to 12.7 oz/in)
OPERATING FORCE (Push/Push ; Push/Pull)	4 to 7 N (14 to 27oz)
MECHANICAL LIFE	10.000 cycles
STOP TORQUE	> 100 Ncm. (142 oz/in)

### ROTARY

### PUSH



# I-21 HOW TO ORDER (only switch)

## STANDARD

## OPTIONAL

<b>I-21</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>M06</b>	<b>0</b>		
<b>Series</b>		<b>Code</b>	<b>Switch model</b>	<b>Circuits</b>	<b>Shafts</b>	<b>Shaft spec. length</b>	<b>Nut &amp; washer</b>
I-21 (See note 1)		1	1	1	M04; L= 40 M06; L= 60 (See note 2)	XX.X (See note 3)	- TA = Loose nut & washer MTA = Assembled nut & washer MT - = Assembled nut - T = Loose nut
		2	2	1			
		3	1	2			
		4	2	2			
<b>Code</b>	<b>Switch model</b>	<b>Terminals</b>		<b>Code</b>	<b>Current</b>	<b>Voltage</b>	
1	rotary switch	Solder lugs		2	2 A	250 V	
2	push/ push switch	Solder lugs		4	4 A	250 V	
3	push/ pull switch	Solder lugs					
5	rotary switch	PCB					
6	push/ push switch	PCB					
7	push/ pull switch	PCB					

### NOTES:

- When only the switch is ordered (without potentiometer), it will be called "I-21" followed by the respective code.
- The shaft and bushing for "I-21" is:

COD.	A	B	L
M06	6	M10 x 0.75	60

- Only for special length and plain shaft (not knurled).  
Example: E: Ø6 L= 24.5 M06 24.5 → special length  
Flatted and slotted shafts, etc. will need drawing.

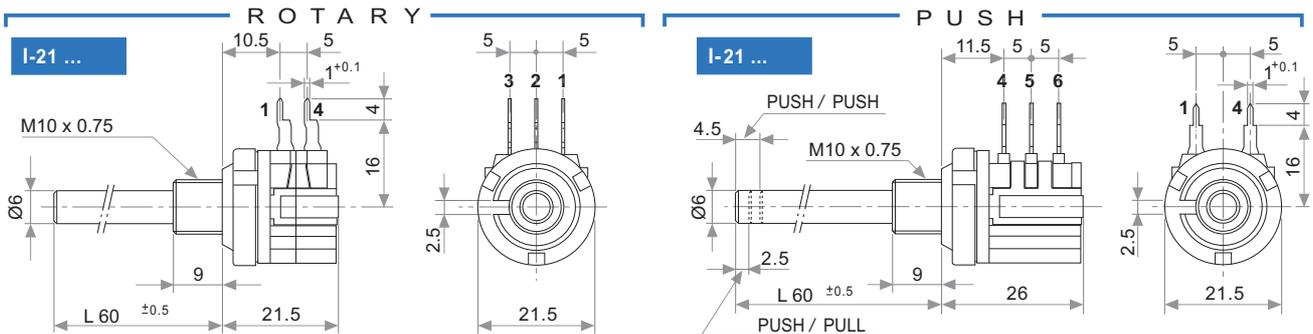
## HOW TO ORDER CUSTOM DRAWING

I-21 + DRAWING NUMBER (Max. 16 digits)

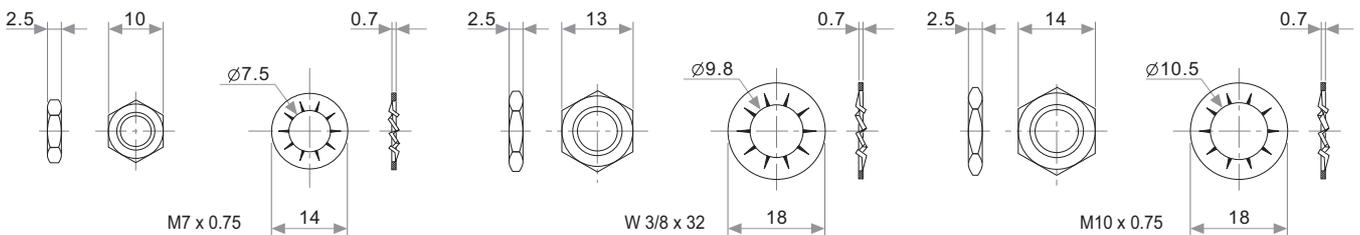
This way of ordering should be used for options which are not included in the "How to order" standard and optional extras.

## STANDARD OPTIONS

Shaft length ..... See note 2  
Nut & washer ..... Without nut and washer



## NUT & WASHER



## PACKAGING

Boxes of 100 pieces ( 160 x 110 x 85 mm.).

## Disclaimer

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