

TR2

Panel cut-out (mm)	Ø 16.2 or Ø 22.5
Characteristics	■ 2 and 3 position ■ sealed IP40 or IP65 ■ plastic or aluminum bezels ■ NO, NC ■ gold plated, single or double pole, contact blocks ■ key trapping options
Rating	250 VAC, 5 A
Dimensions (mm)	18 × 24 18 × 18 Ø 18 Ø 25
Actuator	■ black knob, with white indicating bar
Approvals	UL, CSA, VDE



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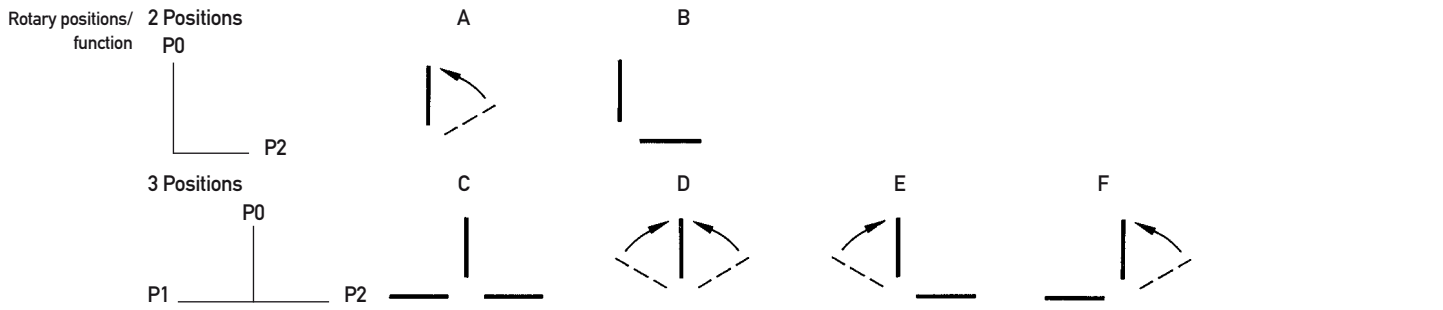
Ordering Reference	Panel cut-out (mm)	Function	Actuator size (mm)	Environmental protection
TR21A2AC1C1A	Ø 16.2	2 Position	18 × 24	IP40
TR22A2CC1C1E	Ø 22.5	2 Position	Ø 25	IP65
TR21C2AC1C1A	Ø 16.2	3 Position	18 × 24	IP40
TR22C2CC1C1E	Ø 22.5	3 Position	Ø 25	IP65

Specifications

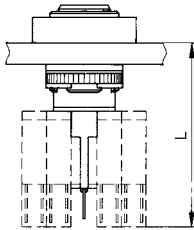
Mechanism	Knob actuated
Mounting	Central fixing with metal lock nut
Protection	IP40 or IP65
Bezel material	Thermoplastic or anodized aluminum alloy
Temperature range °C	-25°C to +85°C
Mechanical life	10 ⁶ cycles
Contact block	Slide-on assembly by the user
Contact block housing	Self-extinguishing duroplastic (UL 94 V0)
Terminal material	Silver alloy with 0.2 µm silver plating, 0.4 µm gold plating
Contact resistance	<30 mOhm
Number of contact blocks	User configurable NO or NC types up to a maximum of 2 double contact blocks
Terminals	Patented flexible solder – suitable for wire diameter 1 × 1.00 mm ² (braided), 2 × 0.75 mm (stranded) Faston - 2.8mm × 0.5mm
Vibration resistance	1.5 mm pp amplitude at 55 Hz

Recommended maximum electrical ratings

Voltage (max) 250 VAC	Resistive load (A) 5.0 (0.7 pf)	Inductive load (A)	Approval UL, CSA, VDE - max. admissible circuit breaker C6A
12 VDC	5.0	3.0	General rating
24 VDC	4.0	2.0	General rating
36 VDC	3.0	1.7	General rating
48 VDC	2.0	1.5	General rating
60 VDC	1.5	1.2	General rating
125 VDC	0.5	0.3	General rating
250 VDC	0.3	0.2	General rating
Electrical life	50,000 cycles at 5A, 250 VAC, 0.7 pf		



Dimensions

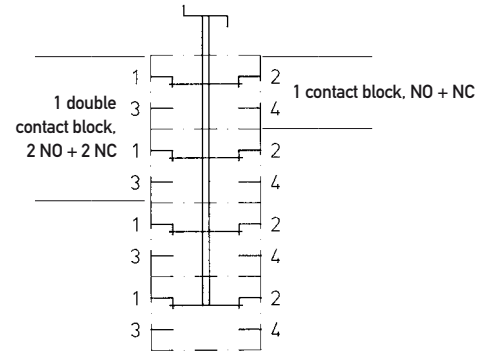


Length in mm (with contact block)

plastic bezels 43

aluminum bezels 42

Circuit diagram (2 double contact blocks)



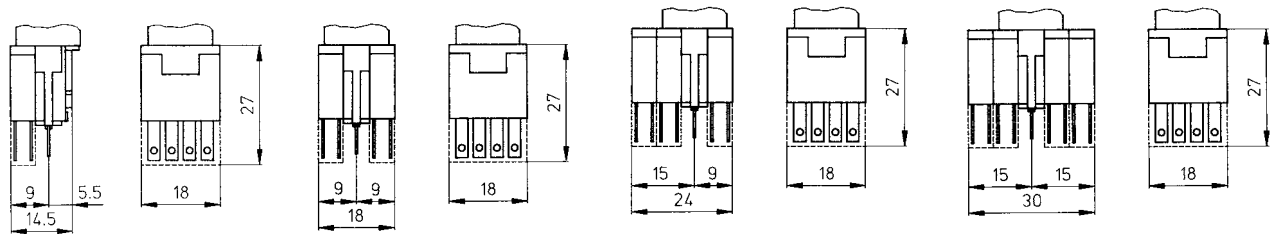
Contact blocks

1 contact block

2 contact blocks

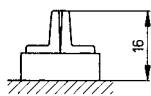
1 contact block +
1 double contact block

2 double contact blocks

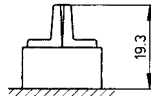


Bezel and rotary knob height

plastic bezel IP40

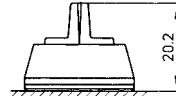


plastic bezel IP65

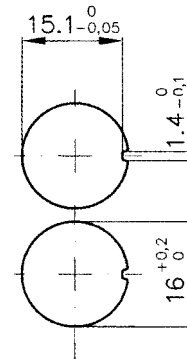


Panel cut-out
16.2 mm $\pm$ 0.1 mm
(plastic)

aluminum bezel



Panel cut-out
22.5 mm $\pm$ 0.1 mm
(aluminum)



Ordering Reference

Basic type	TR2				Example: TR2	1	A2A	A1	A1	A
Panel cut-out	1	Ø 16.2 mm for plastic bezel rotary switches								
	2	Ø 22.5 mm for Aluminum bezel rotary switches								
Switch body 16.2 mm panel cut-out	A2A	2 Positions; IP40;	Momentary	TH508021000						
	B2A	2 Positions; IP40;	Latching	TH508020000						
	A2B	2 Positions; IP65;	Momentary	TH508026000						
	B2B	2 Positions; IP65;	Latching	TH508025000						
22.5 mm panel cut-out	A2C	2 Positions; Ø 25 mm Aluminum bezel IP40	Momentary	TH508031000						
	B2C	2 Positions; Ø 25 mm Aluminum bezel IP65	Latching	TH508030000						
Contact block, gold Position 1	XX	No contact block								
	A1	NO	2.8 × 0.5 mm	TH593566020						
	A9	NO	Insulated faston	TH593560020						
	A8	NO	Solder	TH593561020						
	B1	NC	2.8 × 0.5 mm	TH593566050						
	B9	NC	Insulated faston	TH593560050						
	B8	NC	Solder	TH593561050						
	C1	1 NO + 1 NC	2.8 × 0.5 mm	TH593566000						
	C9	1 NO + 1 NC	Insulated faston	TH593560000						
	C8	1 NO + 1 NC	Solder	TH593561000						
	D1	2 NO + 2 NC	2.8 × 0.5 mm	TH593567000						
	D9	2 NO + 2 NC	Insulated faston	TH593563000						
	D8	2 NO + 2 NC	Solder	TH593564000						
Contact block, gold Position 2	XX	No contact block								
	A1	NO	2.8 × 0.5 mm	TH593566020						
	A9	NO	Insulated faston	TH593560020						
	A8	NO	Solder	TH593561020						
	B1	NC	2.8 × 0.5 mm	TH593566050						
	B9	NC	Insulated faston	TH593560050						
	B8	NC	Solder	TH593561050						
	C1	1 NO + 1 NC	2.8 × 0.5 mm	TH593566000						
	C9	1 NO + 1 NC	Insulated faston	TH593560000						
	C8	1 NO + 1 NC	Solder	TH593561000						
	D1	2 NO + 2 NC	2.8 × 0.5 mm	TH593567000						
	D9	2 NO + 2 NC	Insulated faston	TH593563000						
	D8	2 NO + 2 NC	Solder	TH593564000						
Bezel			IP40	IP65						
	A	18 mm × 24 mm plastic	TH493060000	TH593060000						
	B	18 mm × 18 mm plastic	TH493062000	TH593062000						
	D	Ø 18 mm plastic	TH493064000	TH593064000						
	E	Ø 25 mm aluminum								

The rotary switch cannot be installed without a bezel. The IP40 bezels are interchangeable before installation. Once an IP65 bezel has been assembled it cannot be removed. Contact blocks will be supplied unassembled.

Ordering Reference

Basic type	TR2				Example: TR2	1	C2A	C2C	A1	A1	A
Panel cut-out	1	Ø 16.2 mm for plastic bezel rotary switches									
	2	Ø 22.5 mm for Aluminum bezel rotary switches									
Switch body	C2A	3 Positions; IP40;	Latching P0 + P1 + P2	TH508040000							
16.2 mm	D2A	3 Positions; IP40;	Momentary P1 + P2	TH508041000							
Panel cut-out	E2A	3 Positions; IP40;	Momentary P1 Latching P0 + P2	TH508042000							
	F2A	3 Positions; IP40;	Momentary P2 Latching P0 + P1	TH508043000							
	C2B	3 Positions; IP65;	Latching P0 + P1 + P2	TH508045000							
	D2B	3 Positions; IP65;	Momentary P1 + P2	TH508046000							
	E2B	3 Positions; IP65;	Momentary P1 Latching P0 + P2	TH508047000							
	F2B	3 Positions; IP65;	Momentary P2 Latching P0 + P1	TH508048000							
22.5 mm	C2C	3 Positions; Ø 25 mm Aluminum bezel IP65	Latching P0 + P1 + P2	TH508060000							
Panel cut-out	D2C	3 Positions; Ø 25 mm Aluminum bezel IP65	Momentary P1 + P2	TH508061000							
	E2C	3 Positions; Ø 25 mm Aluminum bezel IP65	Momentary P1 Latching P0 + P2	TH508062000							
	F2C	3 Positions; Ø 25 mm Aluminum bezel IP65	Momentary P2 Latching P0 + P1	TH508063000							
Contact block, gold	XX	No contact block									
Position 1	A1	NO	2.8 × 0.5 mm	TH593566020							
	A9	NO	Insulated faston	TH593560020							
	A8	NO	Solder	TH593561020							
	B1	NC	2.8 × 0.5 mm	TH593566050							
	B9	NC	Insulated faston	TH593560050							
	B8	NC	Solder	TH593561050							
	C1	1 NO + 1 NC	2.8 × 0.5 mm	TH593566000							
	C9	1 NO + 1 NC	Insulated faston	TH593560000							
	C8	1 NO + 1 NC	Solder	TH593561000							
	D1	2 NO + 2 NC	2.8 × 0.5 mm	TH593567000							
	D9	2 NO + 2 NC	Insulated faston	TH593563000							
	D8	2 NO + 2 NC	Solder	TH593564000							
Contact block, gold	XX	No contact block									
Position 2	A1	NO	2.8 × 0.5 mm	TH593566020							
	A9	NO	Insulated faston	TH593560020							
	A8	NO	Solder	TH593561020							
	B1	NC	2.8 × 0.5 mm	TH593566050							
	B9	NC	Insulated faston	TH593560050							
	B8	NC	Solder	TH593561050							
	C1	1 NO + 1 NC	2.8 × 0.5 mm	TH593566000							
	C9	1 NO + 1 NC	Insulated faston	TH593560000							
	C8	1 NO + 1 NC	Solder	TH593561000							
	D1	2 NO + 2 NC	2.8 × 0.5 mm	TH593567000							
	D9	2 NO + 2 NC	Insulated faston	TH593563000							
	D8	2 NO + 2 NC	Solder	TH593564000							
Bezel	A	18 mm × 24 mm plastic	IP40	TH493060000	IP65	TH593060000					
	B	18 mm × 18 mm plastic		TH493062000		TH593062000					
	D	Ø 18 mm plastic		TH493064000		TH593064000					
	E	Ø 25 mm aluminum									

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