

Chapter 101

ROCKER ACTUATOR SWITCHES, HONEYWELL 'TP' SERIES

LIST OF CONTENTS

	Para.		Para.
<i>Introduction</i>	1	Servicing	6
Description	2	<i>Millivolt drop test</i>	7
Installation	5		

LIST OF ILLUSTRATIONS

	Fig.		Fig.
<i>View of a T.P. rocker actuator switch</i> ...	1	<i>Above-panel and flush-panel mounting</i> ...	2

LIST OF APPENDICES

	App.		App.
1 <i>TP series</i>	1	4 <i>TP series</i>	3
2 <i>TP series</i>	2		

Introduction

1. The "TP" series of rocker-actuator switches combine the advantages of toggle switch circuitry and current carrying capacity, with versatile push-button control and styling. They are constructed with, either transparent, or translucent removable buttons. The transparent type of button will accept a legend insert.

DESCRIPTION

2. The "TP" switch cases are of high-impact plastic, designed to resist tracking from electrical arcs. The switch step design allows more space between terminals, thus reducing the possibility of short-circuits. Dependable operation is provided in a temperature range of -65 to $+160$ deg.F.

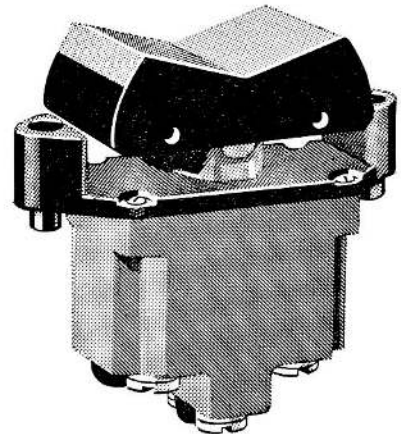


Fig. 1. View of a T.P. rocker actuator switch

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3. A silicone seal between the bushing and the rocker-actuator, prevents the entry of dust, moisture and any other foreign matter into the switching chamber. A non-hardening, non-flowing sealant is also used between the switch cover and the base.

4. The "TP" series of rocker-actuator switches comprise a single-pole, two-pole and four-pole range, each range can be installed for above-panel, or flush-panel mounting, and again, each type of panel mounting can be fitted with a range of transparent and translucent button switches. Single-pole, two-pole and four-pole switches, their contact arrangements and current carrying capacity are detailed in Table 1 of Appendices 1, 2 and 3 to this chapter. A general view of a typical "TP" switch is shown in figure 1 of this chapter.

INSTALLATION

5. The "TP" series of rocker-actuator switches are available for installation in two panel mounting styles, to permit buttons to be positioned, either above, or flush with the mounting panel. The flush-mounting switch, fitted with a translucent button, provides an edge-light type of indicator unit. The lowered half of the button, emits a soft glow from a light source within the panel; this enables easy identification of the switch position in low ambient lighting conditions. Views of

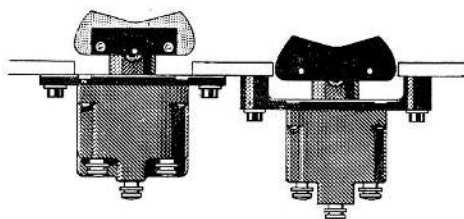


Fig. 2. Above-panel and flush-panel mounting

above-panel and flush-panel mounting are shown in figure 2. Installation details for each range of switches are shown in Appendices 1, 2 and 3 to this chapter.

SERVICING

6. These rocker-actuator switches are silicone-sealed and should not be dismantled for further servicing at user units. Routine servicing therefore, is restricted to examination for security of connections, panel mounting fixing, deterioration of cables, and testing for correct operation in their relevant circuits. Unserviceable items should be returned to Stores.

Millivolt drop test

7. The nominal resistance across the contacts of new 'TP' switches is 0.025 ohm, which would cause a drop of 175 millivolts with a load of 7 amperes.

Appendix 1

1 TP SERIES

LEADING PARTICULARS

No. of poles	...	...	...	...	...	...	...	...	single-pole
Mounting fixing...	...	...	...	...	...	...	...	...	2 hole (locknuts)
Overall dimensions (in.)	...	...	...	...	...	...	...	...	2.13 × 0.62 × 1.72

TABLE 1

List of single-pole, rocker-actuator switches

Flush panel		Above panel		Contact arrangement			Current capacity (amps)										
Trans-lucent button	Trans-parent button	Trans-parent button	Trans-lucent button	One extreme position	Centre position	Other extreme position	Con-tin-uous	Resistive load					Lamp load		Induc-tive load		
								30 Vdc	115 Vdc	250 Vdc	115 Vac	230 Vac	30 Vdc	115 Vac	30 Vdc	115 Vac	
1TP1-1	1TP12-1	1TP4-1	1TP16-1	ON	OFF	ON	45	20	0.75	0.5	15	6	5	3	15	10	
1TP1-2	1TP12-2	1TP4-2	1TP16-2	ON	NONE	OFF											
1TP1-3	1TP12-3	1TP4-3	1TP16-3	ON	NONE	ON											
1TP1-21	1TP12-21	1TP4-21	1TP16-21	ON	OFF	NONE											
1TP-31	1TP12-31	1TP4-31	1TP16-31	ON	ON	NONE											
1TP1-4	1TP12-4	1TP4-4	1TP16-4	ON	NONE	OFF*	45	15	0.75	0.5	15	6	4	2	10	7	
1TP1-5	1TP12-5	1TP4-5	1TP16-5	ON	OFF	ON*											
1TP1-6	1TP12-6	1TP4-6	1TP16-6	OFF	NONE	ON*											
1TP1-7	1TP12-7	1TP4-7	1TP16-7	ON*	OFF	ON*											
1TP1-8	1TP12-8	1TP4-8	1TP16-8	ON	NONE	ON*											
1TP1-41	1TP12-41	1TP4-41	1TP16-41	ON	OFF*	NONE	45	15	0.75	0.5	15	6	4	2	10	7	
1TP1-51	1TP12-51	1TP4-51	1TP16-51	ON*	ON	NONE											
1TP1-61	1TP12-61	1TP4-61	1TP16-61	NONE	OFF	ON*											

* These switch positions are momentary. All others are maintained

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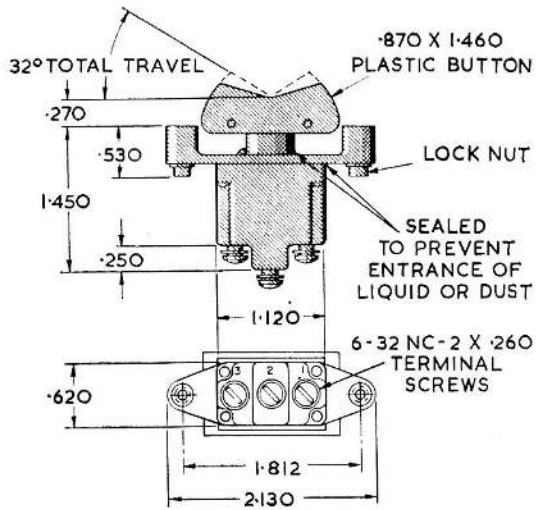


Fig. 1. Installation details

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Appendix 2

2 TP SERIES

LEADING PARTICULARS

<i>No. of poles</i>	<i>double-pole</i>
<i>Mounting fixing...</i>	<i>2 hole (locknuts)</i>
<i>Overall dimensions (in.)</i>	...	...	...	...	...	...	...	...	$2.13 \times 0.89 \times 1.91$

TABLE 1

List of double-pole toggle switches

Flush panel		Above panel		Contact arrangement			Current capacity (amps)									
							Con- tin- uous	Resistive load					Lamp load		Induc- tive load	
								30 Vdc	115 Vdc	250 Vdc	115 Vac	230 Vac	30 Vdc	115 Vac	30 Vdc	115 Vac
2TP1-1	2TP12-1	2TP4-1	2TP16-1	ON	OFF	ON	40	20	0.75	0.5	15	6	7	4	15	15
2TP1-2	2TP12-2	2TP4-2	2TP16-2	ON	NONE	OFF										
2TP1-3	2TP12-3	2TP4-3	2TP16-3	ON	NONE	ON										
2TP1-10	2TP12-10	2TP4-10	2TP16-10	ON	ON	ON										
2TP1-21	2TP12-21	2TP4-21	2TP16-21	ON	OFF	NONE										
2TP1-31	2TP12-31	2TP4-31	2TP16-31	ON	ON	NONE										
2TP1-4	2TP12-4	2TP4-4	2TP16-4	ON	NONE	OFF*	40	18	0.75	0.5	11	6	5	2	10	8
2TP1-5	2TP12-5	2TP4-5	2TP16-5	ON	OFF	ON*										
2TP1-6	2TP12-6	2TP4-6	2TP16-6	OFF	NONE	ON*										
2TP1-7	2TP12-7	2TP4-7	2TP16-7	ON*	OFF	ON*										
2TP1-8	2TP12-8	2TP4-8	2TP16-8	ON	NONE	ON*										
2TP1-41	2TP12-41	2TP4-41	2TP16-41	ON	OFF*	NONE										
2TP1-50	2TP12-50	2TP4-50	2TP16-50	ON	ON	ON										
2TP1-51	2TP12-51	2TP4-51	2TP16-51	ON	ON	NONE										
2TP1-61	2TP12-61	2TP4-61	2TP16-61	NONE	OFF	ON*										
2TP1-70	2TP12-70	2TP4-70	2TP16-70	ON	ON	ON										

* These switch positions are momentary. All others are maintained.

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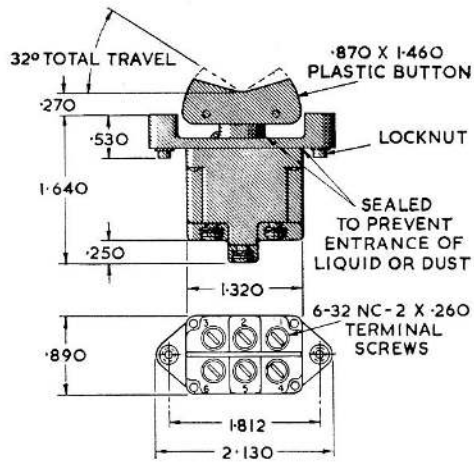


Fig. 1. Installation details

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Appendix 3

4 TP SERIES

LEADING PARTICULARS

No. of poles	4-pole
Mounting fixing...	2 hole (locknuts)
Overall dimensions (in.)	2.13 × 1.64 × 1.91

TABLE 1

List of 4-pole toggle switches

Flush panel		Above panel		Contact arrangement			Current capacity (amps)									
Trans-lucent button	Trans-parent button	Trans-parent button	Trans-lucent button	One extreme position	Other Centre position	Other extreme position	Con-tin-u-ous	Resistive load					Lamp load		Induc-tive load	
								30 Vdc	115 Vdc	250 Vdc	115 Vac	230 Vac	30 Vdc	115 Vac	30 Vdc	115 Vac
4TP1-1	4TP12-1	4TP4-1	4TP16-1	ON	OFF	ON	40	20	0.75	0.5	15	6	5	4	12	15
4TP1-2	4TP12-2	4TP4-2	4TP16-2	ON	NONE	OFF										
4TP1-3	4TP12-3	4TP4-3	4TP16-3	ON	NONE	ON										
4TP1-10	4TP12-10	4TP4-10	4TP16-10	ON	ON	ON										
4TP1-21	4TP12-21	4TP4-21	4TP16-21	ON	OFF	NONE										
4TP1-31	4TP12-31	4TP4-31	4TP16-31	ON	ON	NONE										
4TP1-4	4TP12-4	4TP4-4	4TP16-4	ON	NONE	OFF*	40	18	0.75	0.5	11	6	4	2	10	8
4TP1-5	4TP12-5	4TP4-5	4TP16-5	ON	OFF	ON*										
4TP1-6	4TP12-6	4TP4-6	4TP16-6	OFF	NONE	ON*										
4TP1-7	4TP12-7	4TP4-7	4TP16-7	ON*	OFF	ON*										
4TP1-8	4TP12-8	4TP4-8	4TP16-8	ON	NONE	ON*										
4TP1-41	4TP12-41	4TP4-41	4TP16-41	ON	OFF*	NONE										
4TP1-50	4TP12-50	4TP4-50	4TP16-50	ON	ON	ON										
4TP1-51	4TP12-51	4TP4-51	4TP16-51	ON*	ON	NONE										
4TP1-61	4TP12-61	4TP4-61	4TP16-61	NONE	OFF	ON*										
4TP1-70	4TP12-70	4TP4-70	4TP16-70	ON	ON	ON										

* These switch positions are momentary. All others are maintained.

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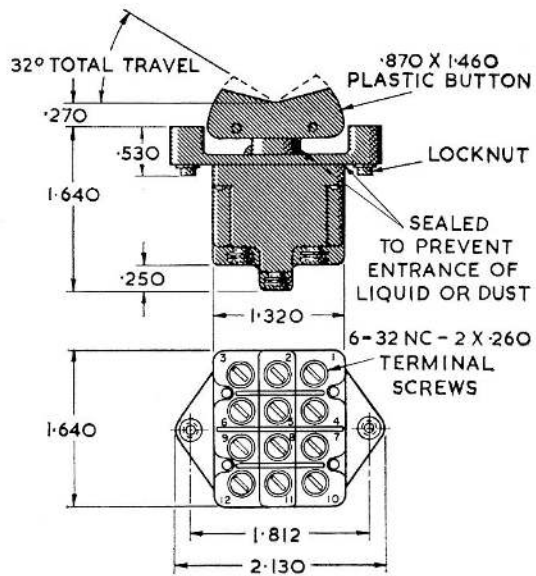


Fig. 1. Installation details

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