# Humphrey TAC and TAC Manual Air Valves

Although these toggle, rocker, and push-pull valves have their primary application in general industrial and instrumentation applications (including control panels), they are also widely used in mobile equipment and adapt well to vehicle dashboards. V and PPX models are 2-position, 3-way and 4-way valves; V models have single-direction throw with pinned lever. 41T and 41R models are rugged, 3-position, 4-way valves which can be used as a 2-position or 3-position valve.



# 2V 3V

Model 2V is a 2-position, 2-way, normally closed, detented valve, having a single direction throw with pinned lever. The 2V has no exhaust port and will trap downstream pressure if supply pressure is maintained but not exceeded. IN and CYL port threads are #10-32 female. Alternate IN is ½-inch NPT male. These valves are furnished with locknuts and lockwashers for ½-32 x ½ toggle collar threads. Weight: 1.25 oz. (35.2 gms.).

Model 3V is a 3-way version of the 2V valve.







### 4V

Model 4V is a 2-position, 4-way, normally closed/normally open, detented valve, which can be converted to 3-way by plugging one CYL port with Humphrey PF fitting. IN and CYL ports are #10-32 female. These valves have single-direction throw with pinned lever and are furnished with locknuts and lockwashers for <sup>15</sup>/<sub>32</sub>-32 x %<sub>32</sub> toggle collar threads.

Weight: 2.38 oz. (67.3 gms.).





# 31V

Model 31V is a 2-position, 3-way, normally closed, detented valve with single-direction throw with pinned lever. It can be used as a 2-way valve by plugging the exhaust port. Ports are 1/8-inch NPT. The 31V valve can be mounted with two #10 screws or with body threads for bracket or panel mounting. Dimensions: 1.31"H x 1.25"W x 0.63"D. Weight: 4.25 oz. (120.5 gms.).

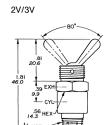


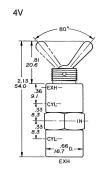


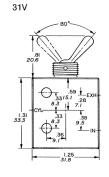
### 41V

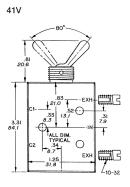
Model 41V is a 2-position. 4-way, normally closed/normally open, detented valve with singledirection throw with pinned lever. Exhaust may be captured by removing port flow controls and using Humphrey BF or BF1 fittings. Exhaust may be muffled with Humphrey 150-30A muffler. Exhaust ports have #10-32 threads; all other ports have 1/8-inch NPT threads. Furnished with exhaust port flow controls. The 41V may be mounted with three #6 screws or with body threads for bracket or panel mounting. Dimensions; 1.65"H x 1.25"W x 0.63"D. Weight: 5.25 oz. (148.8 gms.).

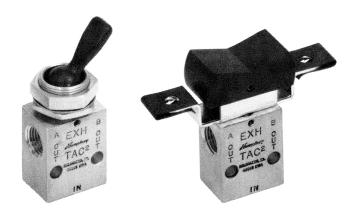
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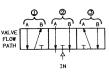


#### 41T 41R

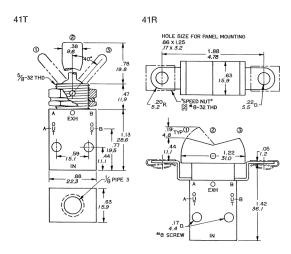
Models 41T and 41R are 3-position, 4-way valves with several functional options. They may be detented or spring-return or both. They can be used as 2position valves by bypassing position #2. They can be used as 3way valves by plugging A or B

port. These valves have separate unthreaded exhaust ports at 180° and rugged matte black toggle or rocker actuators. All models may be side mounted. Toggle valves may be panel mounted with two supplied locknuts (0.187-inch and 0.93-inch thick) and lockwasher. Flow is 7.5 scfm at 125 psig. Weight: 3 oz. (85 gms.)





TOGGLE-ROCKER ACTION BY POSITION						
TOGGLE NO.	1	2	3	ROCKER NO.		
41T-D3	Detent	Detent	Detent	41R-D3		
41T-S3	Spring- Return	Detent	Spring- Return	41R-S3		
41T-DS3	Detent	Detent	Spring- Return	41R-DS3		



# **Specifications**

MEDIA: Compressed Air (Consult factory for others)

PRESSURE RANGE:

0 to 125 psig (0 to 8.6 bars)

TEMPERATURE RANGE: -20 to 180°F (-28.9 to 82.2°C)

OPERATING SPEEDS:
TAC & TAC<sup>2</sup>: to 900 CPM
TAC<sup>3</sup>: to 600 CPM
MATERIALS:
Brass, Stainless Steel, Delrin, Buna N

LUBRICATION . . . . . . . . . Recommended FILTRATION ...

. . . . Recommended, 40 Microns Minimum

# Air Flow to Atmosphere

MODEL	25 PSIG CFM	(1.7 BARS) LPM	125 PSIG CFM	(8.6 BARS) LPM
2V, 3V	1.5	6.8	7.0	198.1
4V	1.8	16.9	9.0	254.7
31V, 41V	4.0	113.2	20.0	566.0
41T 41R	2.0	56.6	7.0	198.1